15 June 2001

Missiles, Missives, Missions and Memetic Warfare

Navigation of strategic interfaces in multidimensional knowledge space

Introduction

There is much current concern about the intentions of the USA with respect to missile shields, star wars and the violation of the Anti-Ballistic Missile Treaty. This paper is concerned less with the tangibles of missiles, their deployment or their payload, rather it is focused more generally on their function as a metaphor for a particular style of communication. As such the debate about missile defence offers insights into the needs of some groups for sophisticated conceptual defences against the turbulence of an evolving complex society. This paper is not concerned with information warfare or the use of spin in public relations.

Curiously, at the time of writing (June 2001), the Russian Defence Minister declared that the arguments in support of construction of such a missile shield were 'entirely hypothetical' -- in comparison with the threats of information (http://www.infowar.com/) and biochemical warfare. This paper is effectively about the memetic significance of a missile shield -- even as a hypothesis. It might be said that World War III effectively started with the Cold War and continues through the re-targetting of espionage and counter-espionage -- manifesting as information warfare. But World War IV may well have just started. It has been described as 'knowledge warfare' or 'memetic warfare'. As Johan Galtung once said with respect to physical violence, only amateurs need to have recourse to it to achieve their ends. The same may be true of what is now known as memetic warfare.

Missiles, Missives and Missions

There is a curious relationship between a missile, a missive, and a mission.

**Missions:** The notion of a mission dates back many centuries. Over a long period it was closely associated with the kinds of mission undertaken by missionaries bearing a religious message to other cultures. The message to be delivered, and the motivation for delivering it, was understood in terms of its desirable transformative power on the receiving culture -- notably its salvatory power. Religious missions are undertaken with the intention of changing radically the culture to which they are despatched. This meaning continues to be of major importance to the proselytizing religions, notably certain styles of Christianity -- especially as articulated through the Great Commission (see http://www.gcmweb.org/international/default.asp). In more recent centuries the notion of a diplomatic mission has become of equal or greater importance, especially to the international community. In modern times, this has been further transformed into the kind of mission undertaken by officials of the United Nations and other international agencies, particularly with respect to the development process. The intention remains one of carrying some form of message capable of transforming the culture that is the destination of the mission. Historically it was Christian religious orders that elaborated much modern organizational terminology -- hence the notion of a 'com-mission', which might be understood as a collective mission.

Many cultures have been faced with the challenge of religious missionaries and their claim to be bringing a unique civilizing influence to
those in need of it -- whether the receivers have expressed the desire for it or not. Ironically, the Universal Declaration of Human Rights, with its explicit recognition of freedom of religion, effectively places on the defensive any culture that refuses to receive such missions -- as are debtor nations subject to the strictures of IMF financial missions. In the case of the modern era, and with respect to religious missions, considerable intellectual power has been deployed to increase the effectiveness of the transformative power of missions amongst target cultures -- as any review of the literature of 'church planting' will indicate.

**Missives:** A missive may serve as a substitute for a mission -- or a missile. It may well be delivered by an emissary. It is notably used in relation to communications with legal implications. Curiously internet electronic enthusiasm gave rise to 'e-mail' but not to 'e-missive'.

**Missiles:** Of course a missile may also be understood as having a long history -- dating back to the Stone Age. Military technologists of every era have focused on the improvement of ways of despatching missiles against an enemy -- notably 'to give them a lesson'. These concerns have focused on size of missile, the distance over which it can be despatched, the accuracy with which it can be aimed, and its destructive power on impact. It could be argued that the destructive power of a missile is the exact opposite of the civilizing (or evangelizing) power of a mission. This might however depend on the perspective of those on the receiving end of either. Clearly missions have a long track record of destroying, if not erasing, cultures -- as is most evident with respect to the Indian populations of Latin America. There are current protests, with respect to development missions to Northern African countries, where effects of some incoming projects on local cultures have been equated with that of a 'projectile' (**).

**Confusion: The confusion of mission and missile, evident in the military activities of the Knights Templar during the Crusades, has its modern echoes in the Salvation Army, the New Age notion of a spiritual warrior, and the use of military metaphors by evangelizing religions engaged in religious warfare ('against Satan and all his works'). But it is also evident in the elaboration of strategy -- the 'war against drugs'. Curiously the NATO intervention in Yugoslavia involved thousands of missions -- transporting missiles. And, as those who receive them are aware, a missive can indeed have the violent quality of a missile -- or possibly the mediatory quality of a mission.

**Missile defence and conceptual defence**

**Missile defence:** The Anti-Ballistic Missile Treaty was signed in the middle of the Cold War after extensive negotiation. It was based on recognition of the strategic advantages of mutual deterrence. Clearly the most obvious concern was the physical destruction and loss of life in each of the opposing cultures. Clearly however this concern with tangibles was intimately related, in each case, to a concern with the destruction of a way of life. The Cold War was as much, if not more, a war of culture and ideology as it was one that could take the form of an exchange of missiles.

The Cold War appears to be over. Concern has shifted to the unpredictable behaviour of rogue states that might also despatch missiles against those of more reasonable or normal disposition. Sophisticated anti-missile systems are called for to provide protection -- hence the advocacy of 'star wars' technology.

**Conceptual defence:** Curiously however there is another layer of interpretation. There is profound concern and insecurity about the protection of the dominant western way of life against any alternative -- despite calls for more sustainable lifestyles. As a hegemonic power, the USA is desperately insecure about the integrity and viability of its own way of life and mode of thought -- especially when God can be invoked by politicians to legitimate this understanding. This way of life must be defended at all costs -- as recent indifference to environmental consequences has also indicated. It is perhaps not so strange that it is the same politicians calling for missile defence who are most anxious to protect their belief system from other cultures (and propagate it to them) -- through missions of any kind, as well as extension of the shield. It is also useful to see the role of Radio Free Europe, and other such initiatives, as early examples of such e-missions.

It is also curious that the major advocate of a missile shield is also the most reluctant nation with respect to 'e-missions'; it is almost as though the shield was being designed to provide a habitat for the cultural equivalent of heavy smokers or practitioners of flatulence. Curious too was that the US presidential mission to the EU (at the time of writing) should have as its two main themes the missile shield and the emissions-related concerns of the Kyoto Treaty. There is a sense in which NASA's preoccupation with space habitat design for alien environments is being applied to the design of a cultural habitat on Earth -- a gated memetic community set in a hostile semantic environment. More curious is the immediate intention to build hundreds of coal-fired and nuclear power plants there -- increasing the risk of 'e-missions', radioactive and otherwise.

The question is then to what extent is a missile defence system a conscious or unconscious elaboration of an underlying conceptual defence system. To what extent is the proposing hegemonic power more fundamentally concerned with inhibiting the ability of others to despatch missions which will have a high transformative impact on its own unchanging way of life? Is such a cultural missile shield designed to protect what amounts to cultural groupthink -- a conceptual fortress from which a variety of sortie missions may be undertaken to penetrate foreign cultures and markets? It is amusing that this context offers another meaning to the term 'think tanks' -- as highly armoured all-terrain conceptual vehicles within which some explore hostile semantic territory occupied by hosts!

In this respect it is worth exploring some of the characteristics of such a missile defence system. Classically it is important to be able to threaten opponents with a massive 'defensive' counter-attack that will potentially annihilate their culture and way of life. But if they are perceived as being irresponsible and with less to lose, then the concern shifts to blocking any initial attack, whether prior to launch (by taking out launch sites) or after launch.

Conceptually the analogue is very intriguing. The hegemonic culture can use its power to threaten other cultures into a mutual stand-off situation. But once a conceptual attack is launched the challenge is how to block it before it has any significant transformative impact. Hegemonic cultures have a variety of ways of blocking incoming conceptual missions. These can range from censorship (as un-American, or disrespectful of creationist thinking), prohibition of entry (immigration laws, etc), legal challenges, intimidation, blocking access to media, and the like. The art of missile defence however is to be able to detect potentially disruptive missiles as close to launch
as possible, if not before. Hence the need for satellite and other forms of surveillance employed in espionage. Clearly electronic surveillance (Echelon, etc.) is a necessary part of this defence system and also meets some of the needs of responding to the equivalent conceptual challenge. It may be extended to censorship or manipulation of web operations -- or simply removing or disempowering those perceived to be opponents. Techniques of responding to massive virus attacks give some indication of the challenge with respect to memetic attacks.

Mainstream hegemony and its conceptual defence system

This line of argument may be used to explore defences within mainstream thinking against external concepts and missions legitimating alternative styles and perspectives. These may relate to sustainable community lifestyles, alternative economics, alternative technology, alternative belief systems, and the like. For example, to what extent is the pattern of arguments deployed to underpin 'globalization' effectively a form of missile shield designed to inhibit emergence of any viable alternatives? In this sense is the UN's Global Compact simply another component in the mainstream system of defence against the emergence of new insights or paradigms (see https://www.laetusinpraesens.org/docs/globcomp.php)? Conceptually, the equivalent of a proactive missile shield involves the capacity to seek out and destroy incompatible modes of thought and ways of life.

The nature of such a conceptual defence system is difficult to render explicit since the most effective form of conceptual defence is intimately associated with reinforcement of denial mechanisms -- and most profoundly at the cultural level. Aspects of this denial are evident in the somewhat pathological contemporary preoccupation with 'positive thinking' -- which, as the Challenger space shuttle disaster indicates, give rise to what might ironically be called 'o-missions'. These are the inability to handle negative feedback and blindspots -- it was failure of the sealant O-rings which resulted in failure of the mission. Such denial is equally evident in responses to acid rain, global warming, Gulf War syndrome, BSE, foot-and-mouth, etc.

The articulation of the various elements in the design of missile defence systems provides interesting metaphoric patterns through which to understand how the conceptual equivalent functions, or might be made to function in defence of a particular mode of thought. It might be worth exploring the masculine associations of 'missile' in contrast with the feminine associations of 'shield' -- and the intermediary role of 'missive'. Is it effectively the case that what is envisaged is a form of conceptual contraceptive shield (a 'semantic cup') to prevent the consequences of some form of impregnation by alternative cultures -- foreign 'e-missions' -- and thus to ensure cultural integrity (echoing historical concerns with racial purity)? Perhaps there is a case for a form of 'morning-after' pill for cultures!

There is an ironic relationship between the proposed 'global' missile defence systems and the kind of conceptual defence system originally associated with 'totalitarian' regimes. Intriguing, in contrast to older forms of missile, is that a missile shield actual requires a detailed mastery of thinking 'globally' in order to guide missiles around the globe. But to what extent are 'global thinking' and 'globalization' effectively a conceptual upgrade on 'totalitarian thinking'? Unfortunately for their proponents, missile defence systems are ill-suited to the challenge of the methods of delivery in information or biochemical warfare. But curiously concern with the internet and information warfare has not given rise to what might be called an 'e-missile', although many attacks might be understood with such language. It is however the biological metaphor of a 'virus' which has been the focus of attention.

Those advocating alternative modes of thought might therefore see their opportunities as lying in delivery systems more analogous to those for dissemination of toxins or drugs -- or 'e-missions'. It is perhaps not unexpected that one Japanese sect advocating another mode of life found it logical to explore use of nerve gases. Equivalent to the threat from rogue states are those from suicide bombers -- by which conventional defences are severely challenged. The same has always been true with respect to martyrs to any emerging cause, as has been evident from the origins of Christianity. One challenge is of course from missiles launched from within such a shield -- such as the conceptual equivalent of the Oklahoma bombing.

Conceptual defence systems and memetic warfare

It is Susan Blackmore (1999) who, following Richard Dawkins, has given the strongest recent focus to 'memes'. Blackmore's theory, borrowed from Richard Dawkins (1976), poses a radical view of human culture. Ideas are living us, not vice versa. Indeed, the very "I", the heart of consciousness, the personality, is itself the result of memetic warfare. Whoever we are is the outcome of which memes successfully reproduced. We are not a single entity, but rather a memeplex (a network of connected, and sometimes disconnected, idea units). Thus, the concept of a self vanishes, rather we are walking "meme machines". Blackmore's theory has been used to explore how cults succeed (http://members.tripod.com/~andrea65/nr4.html)

A valuable early articulation of memetic engineering and cultural warfare in relation to psy ops was made in 1993 by Michael Wilson (http://www.7pillars.com/papers/MemEngin.html). The concept of memetic warfare is a new one with relatively few references on the Web. Curiously some enthusiastic explorations of this theme are by conspiracy theorists and Satanists, one of which purports to cite American intelligence reports (see http://www.deathandhell.com/threats/threats60.html). Another is an early review of aspects of its significance (http://mistersnee.tripod.com/meme.txt).

The use of memetic warfare - crafting self-perpetuating propaganda viruses - is emerging as an artform with thus far mostly unharvested potential. Bruce Schneier, chief technologist for Counterpane Internet Security, calls these sorts of things the third wave of network attacks. The first wave was attacks against the computers and wiring themselves, the second wave was attacks against vulnerabilities in the software and network protocols, the third wave ("much more serious and harder to defend against") comprises semantic attacks: attacks that target the way we, as humans, assign meaning to content." (http://www.syntac.net/hoax/hacktivism.php)

According to Kas Graham (who provides an excellent bibliography):

Quite a subculture has built up around what Umberto Eco (Travels in Hyperreality, 1986) called semiological guerrilla warfare,
From a postmodernist perspective, as articulated by Neil p Corkeran:

The spontaneous decentering of the modernist monotheism (attempting to maintain claims to 'knowledge' and 'truth') is an everyday event and has led to (neo)traditions of cultural uprisings and protests, feminist critiques, critical mass bike rides, culture jamming and the concept of 'memetic warfare'. These forms of (social) resistance employ the insertion of counter-messages, or subvertisements, into the stream of mass produced corporate consumer culture facilitating the popular deconstruction of the messages being thrust at mass society. The deconstruction of a universalist paradigm such as modernism can only be accomplished by what it is not: the movement of a multiplicity of forms and ideologies that reposition individual and community 'truth' claims over universalist pretenses of modernist Truth. Deconstruction is a method that enables the removal of a unitary point of view and the flourishing of diverse (plural) viewpoints, viewpoints that already exist in direct contradiction to the assertions of the modernist determinism.

Additionally there should be concern that any tendency towards a groupthink environment would itself lead to cultural inbreeding and the emergence of homogeneity and widespread monotony and boredom. Experiments with dogs raised from birth in monotonous environments suggest that they are less proactive than those raised in more variegated environments.

While the notion of cultural change as a kind of 'positive virus' might be most overtly associated with scientists such as Dawkins, Lisa Yaszek discusses how feminist author Joanna Russ explores similar ideas in her science fiction. Yaszek suggests that we can understand The Female Man (1975) as a call to social change that relies upon the memetic or viral activity of imitating and transforming dominant discourses of gender, health, and disease. Here, Russ again seems to anticipate emergent scientific speculations about cultural (r)evolution through descriptions of a semiotic warfare that seems remarkably similar to Richard Dawkin's description of memetic activity. At the same time, she mutates Dawkin's speculations by showing how 'memetic warfare' might be specifically adapted to a progressive feminist agenda.

A variant of memetic warfare might be considered under the name 'metaphoric warfare', but there are no references to this on the web. However, a 'metaphoric projectile' is identified in an exploration of metaphoric vehicles, Philippe Baumard reviews the implications of the work of Paul Virilio.

Virilio uses metaphors as a means of the rapid derailing of the conventional understandings of things. We will see this in the following sections of this paper where his mobilisation of the figures of the tendency, the accident and the journey will be examined. In Virilio's texts, the metaphoric vehicle is pushed to crash velocity, as it were, in the attempt to challenge the traditional apprehension of the metaphoric tenor. It becomes a metaphoric projectile. This 'dangerous driving' of the metaphoric vehicle is consistent with Virilio's fast-moving, schematic characterisations of the major tendencies immanent in contemporary phenomena.

In an excellent clarification of the distinction between information warfare and knowledge warfare, Philippe Baumard summarizes his concern, with respect to business strategy:

We will argue in this paper that InfoWar (informational arena-based warfare) has been thought within the boundaries of old schemata that will no longer be accurate in the XXIst century. These schemata include misconceptions of management, organizations, economics, welfare and of purpose of development. We will investigate, in the footsteps of Hedberg, Jonsson, Starbuck, Steele, Wilensky, and many others, design principles that worked, and no longer worked. Founding our comments on observations of real-world experiences, we end with recommendations as to prepare nations, organizations and people for the forthcoming paradigm shift: from InfoWar to Knowledge Warfare (K-Warfare).

Simplicity vs Complexity

There is a strange symmetry between missile and mission. There is an essential simplicity to the concept of any missile in comparison with the complexity of the destruction it causes -- although its design may indeed be highly complex. It creates entropy. On the other hand a mission is a relatively complex conceptual delivery system, whether in the form of a spiritual message articulated in many words in a book or the perceived complexity of the behaviours required to exemplify it in the receiving culture following conversion. But the essence of the message is claimed to be one of simplicity. It purportedly creates negentropy. The kind of order extolled by IMF missions purportedly also creates such negentropy. But, as many conversions attest, even this process may be described using military metaphors -- a 'bolt' from on high, or being 'struck' by an insight.

The author who has perhaps best articulated the experiential cognitive relationship between simplicity and complexity is Ron Atkin (1977, 1981) in dealing with multidimensional conceptual spaces. The question is how to describe the experience of complexity within a framework of simplicity. And then how to describe the constraints on understanding when it becomes necessary to articulate complex insights into a simple framework -- and what gets lost in the process.
It might be argued that both missile and mission seek to deliver a relatively simple message in the expectation of causing complex transformative changes. In the case of a mission a higher quality of simplicity is expected to result from these transformations. In the case of a missile, destruction may be expected to lead to a more manageable, namely simpler, situation.

What is it then about mainstream thinking, and the lifestyle of the dominant way of life, that makes it so vulnerable in the eyes of its advocates to disruption by alternative modes of thought and action? Why are such sophisticated defences considered necessary? Is it the case that the unsustainable dominant way of life is in some ways:

- simple, namely vulnerable (like a supersaturated solution) to any incoming mission that may call for, and catalyze, a complex transformation?
- complex, namely vulnerable (like a meta-stable structure) to any incoming missile that would transform it into a new form of simplicity experienced as some form of collapse (possibly welcomed by some ‘as in veils falling from our eyes’)?

In either case, how is it possible to distinguish in advance those transformations that lead to a higher state of order from those that lead to a lower state of order?

The dilemma is most evident in the extreme understandings of higher forms of order, namely:

- transformations leading to highly ordered centralized forms of society and knowledge system (explicit rules, as in complex social organizations, etc)
- transformations leading to highly decentralized forms of order and knowledge system (self-organization, as in ecosystems, etc)

**Both missile and mission change dimensionality** -- notably in terms of understanding of it -- but it is the conceptual transformation that is completely obscured by the more tangible effects. In terms of understanding:

- a highly complex understanding may be experienced as a framework for a very simple understanding (as exemplified by the Theory of Everything -- the Holy Grail of physicists)
- a highly simple understanding may be experienced as rich in complexity and nuance (as exemplified by the goal of those who seek to live a simple life, possible inspired by spiritual experience)

A missile defence system is effectively a disguised form of conceptual defence against any form of transformation. Whereas a 'nuclear' missile radically disassembles matter, the conceptual analogue may well be understood as radically disassembling a way of life -- 'nuclear' families and communities. It is no accident that it is the USA socio-economic system that is most resistant to changes towards sustainability, whilst at the same time perceiving itself most in need of a shield against conceptual missiles from those who reflect a different state of order.

Perhaps a more effective missile shield should be thought of more in terms of a puzzle -- as in the thought experiment (described below) in the design of an ideal zoo. In this sense the importance attached to encryption technology by the hegemonic power is an indication that this has already been recognized with respect to information warfare. It is media management, spin skills and psy ops that are the early precursors of a shield appropriate to memetic warfare. Indeed the language used in image management -- such as 'damage limitation' -- suggest that attempts are being made to transfer the same military thinking to this new arena.

**Viewing complexity through simple frameworks**

It might be argued that both missile and mission reflect an effort to impose a relatively simple framework on a relatively complex situation. Both science and modern management methods seek to apply the simplest set of categories (that they can successfully get away with) to a situation with which they have to deal. In science this is articulated in terms of laboratory models that are recognized to be only rough approximations to the real world. In the case of management, the idea is to design out of a problem situation (into the external environment) all the factors that cannot be adequately managed. This is the strategy of 'solution by evacuation'. In both cases complexity is exported in order to be able to handle simplicity.

This approach has proven most obviously disastrous in the case certain development style projects (classically: the groundnut scheme in Tanzania, rabbit introduction into Australia, etc). More recently it has resulted in well-argued criticism of the need for development 'with a human face' in contrast to the 'structural adjustment' schemes long advocated by the World Bank and IMF. Many development strategies are still based on some simple understanding of a 'silver bullet' -- a conceptual missile -- that would magically resolve complex developmental and environmental challenges. Ironically various software packages used to present projects, are characterized by the use of 'bullets', often directed at 'targets'.

What is lacking is any sense of the relative complexity of a strategy in relation to that of the situation addressed. In terms of Ashby's cybernetic law, it is necessary for the former to be greater than the latter for the situation to have any chance of being governable by the envisaged strategy. Unfortunately, naively (or hypocritically), simplistic strategic frameworks are repeatedly applied to complex situations and astonishment is expressed when they fail. Of course the merit of the simpler strategic frameworks is that they can be comprehended by those called upon to decide in their favour. As with the old story of the man asked why he was searching at night for his keys under the streetlight when he had lost them outside the lighted area -- the answer is that it is easier to design simpler strategies even though they are effectively disconnected from the problem. Or, as expressed in one management adage, if all you have is a strategic hammer, then every problem must be treated like a nail.

Of course there is also the archetypal approach of the wise who are able to view a complex situation from an enlightened simple perspective. It is such wisdom that is sought from gurus of every kind. Parents may even offer it in response to confusing experiences encountered by their children.
Viewing simplicity through complex frameworks

As in the previous case, there are two situations.

Those endowed with complex frameworks may view with dismay and repugnance the simplicity of the frameworks employed by others without such educational advantages. Complexity is then a mark of culture and simplicity is a mark of ignorance -- and being 'simple'. It is for such reasons that the apparent simplicity of some alternative lifestyles is viewed as lacking in the richer subtleties associated with more complex frameworks.

But as noted above, at the opposite extreme, there is the case of those cultivating a simple lifestyle who experience it as rich and complex.

Entrapping 'simple people' in complexity

It is easy to imagine a strategy that would deliberately elaborate a complex knowledge space to provide a context within which people could be effectively entrapped. Expressed in benevolent terms, this knowledge structure would be a framework to protect and guide those confused by the complexities of the world and requiring points of reference and models. Clearly many religions would aim to provide their believers with just such a framework. Theologians would invest heavily in the elaboration of the subtleties of the system -- far beyond the possibility or need for those of simpler disposition to comprehend. Expressed more cynically, such a system could usefully be designed to constrain any tendency to envisage alternative modes of organization. Such might be the approach of a totalitarian regime of whatever flavour. The much-cited study by Edward Herman and Noam Chomsky Manufacturing Consent: The Political Economy of the Mass Media (1988) captures many dimensions of this.

The art in both cases, whether benevolent or not, would be to design the knowledge space and its associated behavioural requirements, such that no boundaries or constraints were apparent. However a person chose to move within it, sufficient choices and degrees of freedom would be offered that the person never encountered the boundaries by which the containment was ensured.

A good way to explore this is with respect to the design of an ideal zoo or nature park in which the boundaries were never apparent to the animals -- who were always free to move in directions they themselves preferred. The simplest and clearest example of this is the traditional carp pond on a Chinese smallholding. The challenge is that the pond is necessarily small and the carp is comparatively large - or may become so. If the pond is empty, the carp merely sits in the middle, does not exercise and essentially becomes unhealthy. Placing a rock in the centre of the pond gives the carp the illusion that it is faced with two directions in which to swim -- both of which give the impression that it is effectively swimming along a river. As it swims round and round the rock, it has the illusion of swimming past a bank on one side and a rocky bank on the other. It continues to swim. Cynically it might be said to have acquired a sense of mission.

Ironically knowledge workers, unknowingly entrapped in such environments, might well be described as being in a 'concentration camp'. It would be their very concentration and focus that would prevent them from experiencing how they were constrained -- in curious contrast to knowledge workers transported around knowledge space in virtual 'think tanks'. This suggests how some concentration camps will effectively become the memetic era equivalent of labour camps and sweat shops. In repeating itself in a memetic context, history will no doubt ensure that human culture will for a long time remain insensitive to the repugnant features of conceptual slavery -- justified by arguments equivalent to those made with respect to the vital role of slavery in sustaining economies up to the 19th century.

The question is how such structures might be created for humans, whether for benevolent or other reasons. Clearly it has applications with respect to recreation -- and preventing people from becoming bored and restless. It has applications with respect to politics and governance -- creating the illusion of progress (possibly by offering an unending succession of 'key' meetings). Atkin (1977, 1981) analyzed its application to the design of a complex set of academic committees at a university. It might prove to be a key to sustainability. Interestingly it also has applications to the design of sustainable communities, especially those proposed to house thousands in space -- or even space vessels requiring many years to reach their destination. Such designs might be relevant to prisons -- as a way of avoiding people becoming 'stir crazy'.

Appropriately organized such a knowledge-communication space might allow people and groups to each acquire their own sense of territory -- even encouraging them to 'defend' it (possibly with 'missiles'). Other territories might be attacked to acquire territory. World-wide virtual environments are now extensively used to this end (for example Everquest (http://www.everquest.com/)). But a philosopher like Feyerabend might go further and suggest that science itself could be understood as providing such an environment within which a variety of research initiatives could be undertaken and territories defended. Science fiction enthusiasts might see such a strategy as a means whereby a galactic civilization (advanced in knowledge management terms) might 'manage' Earth in anticipation of its genuine civilization. Conspiracy theorists would however have no need of extraterrestrial criminals -- they would have their own favourite originators of such frameworks, ranging from secret societies to various well-known organizations perceived as having covert agendas and the intelligence and resources to pursue them.

The issue may be less the cynicism of designing such environments as opposed to the challenge of designing ones that are more and more unbounded -- with ever more degrees of freedom. The question for any 'inhabitant' would however remain one of understanding the intentions of the designer and why one might struggle to get 'out' -- questions that are a focus of philosophy and anxieties about the meaning of life.

Again it is Ron Atkin who has best explored how knowledge and communication spaces of this kind might work. He is especially articulate on the invisibility of complex boundaries which can only be subliminally sensed by effectively 'feeling the geometry' -- effectively sensing the local constraining curvature of knowledge space.
Liberating 'complex people' through simplicity

The reverse challenge is one of making simplicity meaningful to those habituated to complex knowledge spaces. There is now an extensive literature on the challenges of 'leading a simple life' (Elgin, 1981). Most focus on the practicalities and tangibles -- typically in a rural setting. These may well be complex enough so that the person has effectively switched from urban to rural complexity of equivalent degrees. Another example is the switch to a monastic life.

The interesting challenge is how formerly 'complex people' manage in a simpler knowledge space. Or, what kind of knowledge space would be experienced as both meaningful and simple -- sustainably -- to those habituated to complexity? There are clearly many forms of experiential complexity. The most obvious is one involving many partially integrated factors and obligations typical of urban life -- with many different 'things to worry about' necessitating "busy-ness".

But another form of complexity might be expressed in terms of multidimensionality. The number of factors to worry about might be much smaller -- but the frameworks through which they can be understood might be more complex. Transforming between such modes of perception might provide a sense of complexity within what was fundamentally a more simple condition.

Perhaps the contrast might be best expressed by comparing the complexities of opportunity within a large supermarket with those of a penny whistle with literally only a handful of notes. The penny whistle is obviously very simple (and probably on sale on a supermarket shelf). How one may be able to play it is quite another matter as an Irish musician can demonstrate. What are the knowledge equivalents of a penny whistle and what are their melodies by which one might sustainably be nourished?

Clearly some schools of meditation would have their particular answers to this. But the range of answers might be much wider. Some schools of martial art cultivate an extreme simplicity of attitude from which any form of complex defensive movement may be instantly deployed in response to threat.

Navigating complexity

People are increasingly confronted with the challenge of how to survive in a complex knowledge space whatever its nature -- and how to navigate within it.

Again there is the extreme of a complex navigational scheme, based on the best of high tech knowledge management. There is heavy investment in this option which is open to relatively few -- although aspects of it will be rapidly commodified. However it is relatively clear that even the best such software and conceptware does little for those faced with dilemmas and paradoxical (self-)governance decisions. Decision options may be presented, but when the strategic dilemmas are fundamental, the real challenge is elsewhere.

A more interesting opposite extreme is that of extreme simplicity -- perhaps exemplified by the actor Peter Sellars in the film Being There. How can innocence successfully survive and navigate in complexity -- as often advocated by various forms of spiritual discipline?

The most challenging forms of complexity take the form of puzzles, riddles or paradoxes -- otherwise described as dilemmas. Implementation of major strategic initiatives is increasingly paralyzed by such dilemmas, whether at the global, regional, national, local or personal level. Such dilemmas may be elegantly and insightfully reframed as 'complementaries' but this valuable approach may be very difficult to use operationally in reality.

As in the Greek myth, navigating between Scylla and Charybdis is not a simple matter. Many myths point to the challenge of walking between pillars representing polarities. To do this, a certain quality of innocence is as valuable as deep knowledge. The challenge increases when there is a configuration of such paired pillars in a multidimensional space. The Buddhist mandala is one depiction of the challenge -- a map of the complex gateway. This challenge has been given popular significance in the science fiction series Stargate. However it is the cognitive challenge that remains elusive.

Clues to understanding how people might move through complex knowledge spaces are surely available from those who engage in dancing, skateboarding, snowboarding, surfing, hang-gliding and other sports requiring balance and coordination. Have they ever been consulted about issues of governance -- as has been the case with jazz musicians (Kao, 1996)? What is intriguing is that many of these clues can perhaps only be alluded to in aesthetic terms.

One interesting possibility is offered by the patterns of vices and virtues traditionally articulated by different religions from West and East -- and especially by their missionaries. Understood slightly differently -- primarily as experiential, rather than behavioural, guidelines -- these might well suggest fruitful and less fruitful ways of navigating experientially in complex knowledge spaces. The question is how to decode them. One approach is to use them as templates through which to identify the virtues and vices of movement in sports like those named above. (For a more detailed discussion see: https://www.laetusinpraesens.org/docs/otherwise.php#navi). The articulation of generic virtues and vices of movement should then offer insights into those associated with navigation of these knowledge spaces -- providing a key to how the classic virtues and vices can be understood experientially as necessary disciplines for navigational purposes (see also).

Further support for this approach comes from the work of Vladimir Dimitrov on Decision Emergence out of Complexity and Chaos (1998). He argues that there is enough experiential evidence in support of a view articulated in ancient vedic writings that individuals are directed towards achievement or acquisition of: power, knowledge, and/or freedom, as well as towards experience of love, pleasure and/or longevity. Whatever an individual decides to do, his or her actions are inevitably pulled towards one (or more than one in parallel) of those six kinds of activity. These:

'represent dynamically stable patterns in the turbulent flow of human actions. The stable patterns in chaotic systems' dynamics are called chaotic or strange attractors. Being at a strange attractor, any chaotic process continues to move (as long as an energy supply is available) in an unpredictable way, but cannot easily escape from the basin of the attractor. The six dynamical patterns
of human activity can be considered as chaotic attractors in a space where each individual or group decision process can be represented by its unique dynamic trajectory - we shall refer to this space human decision space.

The operation of a six-fold set of navigational dimensions has been articulated by Arthur Young in his work on the Bell helicopter and subsequently generalized by him to psycho-social system control challenges (1978: see a commentary at https://www.laetusinpraesens.org/docs/learntab.php).

However it is ironic that much extremely valuable thinking is invested in the complexities of missile navigation and guidance -- and in those of the corresponding defence systems. In operation, the ‘virtues’ and ‘vices’ of such missile guidance systems might be seen as a sad parody of the challenge of navigating complex knowledge spaces.

**Strategic simplicity vs strategic complexity**

Ashby's Law in cybernetics poses the fundamental challenge for governance -- how to design a sufficiently complex strategy to deal adequately with a complex problematique. This challenge is bedevilled by that of making the strategy sufficiently simple to be comprehended as credible by those who must approve it. Although a VCR manual may be many pages in length, there is still an expectation that a major global strategy be articulated on a few pages.

Philippe Baumard concludes his excellent study on the shift from information warfare to knowledge warfare in the following terms:

"Making the simple complicated is commonplace; making the complicated simple, awesomely simple, that's creativity". Preparing for the knowledge warfare paradigm requires a strong focus on reengineering of the whole education process of industrialized democracies. This is that simple, but policy makers will face strong resistance, especially from academics. Integration of strategic issues assessment should be put as early as possible in education. The current process is cumulative. The required process is interactionist. Instead of thinking of education in terms of sequentiality, policy makers should design education in terms of interconnectivity and interoperability. Many organizations would like today to increase the awareness of strategic issues among their engineers' population, and vice-versa, to increase the awareness of technological issue among their commercial taskforces. To do so, they design new systems, centralized economic intelligence units that dispatches technical of market information to both communities. Some firms, like Intel, encourage hybrid teams of engineers and managers as to fertilize criss-crossed issues. This is a result of a Taylorized learning and knowing. Emphasis should be put on judgment, cognitive skills, cognitive flexibility, incongruity and ambiguity tolerance at the youngest age. In the knowledge warfare paradigm, strategic advantage does not lie in the concentration of facts-and-figures, but in the complementarity and singularity of the brains who interpret them. National widespread sense-making capability matters more than electronic information highways.' [more]

'Democracy' may necessarily require use of simple comprehensible strategies to defend a way of life simply defined. Hence a missile shield to protect against the complexities of the real world and the complex strategies that Ashby's Law requires to deal with them. The clash of civilization may therefore be more fundamentally understood as memetic warfare -- of which an important variant might ironically be termed metaphoric warfare (see papers on Governance through Metaphor).

There is a strange irony to the manifestos of political parties of most countries in that they are indeed simply defined in terms of slightly more than a handful of topics: jobs, health, education, security, etc.-- by which polls indicate that people are most concerned. But, in contrast to the penny whistle, there is little effort to indicate how, and with what skill, these standard 'notes' will be strategically combined to produce complex melodies that will give coherence to the problematic incoherence of daily life in the societies so governed.

This challenge with respect to governance has been explored elsewhere -- especially with respect to the African cultures that have been exposed to both missionaries and destructive projects despatched from afar like projectiles (see Knowledge Gardening through Music).

**References**


Philippe Baumard. From InfoWar to Knowledge Warfare: Preparing for the Paradigm Shift


Patrick Crogan. Metaphoric vehicles [text]

Richard Dawkins. The Selfish Gene. 1976. [reviews]

Vladimir Dimitrov. Decision Emergence out of Complexity and Chaos. 1998 [text]

Duane Elgin. Voluntary Simplicity -- toward a way of life that is outwardly simple, inwardly rich. 1981

William R. Fast. Sun Tzu Art of War in Information Warfare: Knowledge strategies -- balancing ends, ways, and means in the information age. [text]

Kas Logue Graham. How to Make Memes and Influence People [text]


Anthony Judge:
- Enhancing the quality of knowing: through integration of East-West metaphors. 2000 [text]
- Knowledge gardening through music: eliciting patterns of coherence for African management as an alternative to Project Logic. 2000 [text]
- Metaphoric entrapment in time: avoiding the trap of Project Logic 2000 [text]
- Coherent policy-making beyond the information barrier: circumventing dependence on access, classification, penetration, dissemination, property, surveillance, interpretation, disinformation, and credibility 1999 [text]
- Dancing through interfaces and paradoxes: group alchemy in the Empty Red Centre 1998 [text]
- And when the bombing stops? Territorial conflict as a challenge to mathematicians 1999 [text]
- Enhancing sustainable development strategies through avoidance of military metaphors 1998 [text]
- Being Other Wise: Chasing to the dynamics of a meaningfully sustainable lifestyle 1998 [text]
- Envisaging the art of navigating conceptual complexity 1995 [text]
- Liberation of integration, universality and concord 1980-92 [text]


Michael Wilson. Memetic engineering, psyops and viruses for the wetware 1993 [text]

Lisa Yaszek. Viral Feminism and Women's Science Fiction. 1999 [text]


7Pillars Partners Publications:
- Perception Management [text]
- Waging IWAR [text]
- Battle for the Soul of Information Warfare: Pearl Harbor vs. the Hashishim [text]
- Hardwar, Softwar, Wetwar: Operational Objectives of Information Warfare [text]
- Memetic Engineering--PsyOps and Viruses for the Wetware [text]
- Application of Memetics [text]

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

For further updates on this site, subscribe here