



laetus in praesens

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16 December 2013 | Draft

Metaphors To Die By

Correspondences between a collapsing civilization, culture or group, and a dying person

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Produced on the occasion of the [G8 Dementia Summit](#) (London 2013)

attended by world leaders after participating in commemoration of the death of Nelson Mandela

[NB: Because of its length, readers may find the [segmented version](#) of this document in Kairos more convenient]

Introduction

Person vs. Collective: There is an instructive possibility of exploring correspondences between how individual dying is framed (by those variously faced with it) and how groups and cultures "die" (by those faced with this collective phenomenon). Of necessity, there is much reflection on the first case. The case of groups is now evident in terminal bankruptcies, corporate downsizing and community decline. It is more tragically experienced as the loss of lifelong working relationships, estrangement from relatives and friends, the "death" of a language, or the dissolution of centuries-old cultural identity -- and especially of genocidal massacre. The familiarity with individual death is readily used to provide a metaphorical framework for understanding that of any collective. Much more challenging is how the nature of the "dying" of an empire, or even of a global civilization, is to be sensed, experienced and comprehended. How might a mighty civilization have a "good death", and "die gracefully" -- with dignity?

Dying vs. Living: There is an extensive literature on framing the dying process, whether for those who are dying or for those left to grieve. The much-cited study by [George Lakoff](#) and [Mark Johnson](#) (*Metaphors We Live By*, 1980) has evoked a wide variety of studies and commentary on "Metaphors We Die By". As with the original study, these focus predominantly on the case of the individual. [Jared Diamond](#) has provided several studies of relevance to the collective case (*Collapse: how societies choose to fail or succeed*, 2005). The framing adopted (whether unconsciously or not) by those embedded **within** those collectives, as implied by Diamond's reference to "choice", is necessarily absent from studies **about** macrohistory. Hence the challenge of deriving meaning from the larger pattern of living and dying, as previously discussed (*Engaging Macrohistory through the Present Moment*, 2004).

Collective decline: Despite the extent of the phenomenon, there are relatively few studies of the metaphors used by groups, villages and corporations to frame the process of their own demise. Exceptions include Howard F. Stein (*Death Imagery and the Experience of Organizational Downsizing: or, is your name on Schindler's List?*). [Simon Crean](#), as Australian Trade Minister, gave support to the idea that the [Doha Round](#) is on "life support" but not yet as "dead as the dodo" (*Aust and US call for revival of Doha Round negotiations*, *Correspondents Report*, 9 March 2000). According to Crean: *The metaphors of death and crisis have become central to discussion of the world trade round involving 151 countries.*

Sacrifice: More questionable is of course the use of metaphor to enable and facilitate self-sacrifice (suicide missions, self-immolation, etc) or the sacrifice of groups and cultures -- often by those incapable of any sacrifice themselves, as argued by George Lakoff (*Metaphor and War: the metaphor system used to justify war in the Gulf*, 1991; *Metaphors of Terror*, 2001). Like jihadi suicide bombers, kamikaze pilots and Christian martyrs have a profound dependence on metaphor in dying for their cause -- or enabling the death of others with detachment, as exemplified by drone pilots and gas over operatives in concentration camps..

Dying collectivities: The effort here is to switch from the emphasis on the metaphors which already tend to be used by some -- implied by "We Live By" or "We Die By" -- to those unfamiliar metaphors which might be fruitfully used. Hence use of the title "Metaphors To Die By" -- possibly better considered as "Metaphors To Die With", "In", "On", or "Through". This endeavours to extend the range of metaphors which could be of value in the individual case in order to encompass that of the group and civilizational cases. The approach thus challenges the variety of conventional approaches to dying by considering the implications and relevance for collectivities. The emphasis is however especially on the framing that the dying may find fruitful in some way -- rather than that by which others may choose to frame it as "non-participants" in the experience itself ("as lived").

Dying of global civilization: This shift in focus is of course of very particular relevance to the process by which the current global civilization is "dying" as has been variously claimed (notably in the many articles referenced on the "Die Off" website). Many current global initiatives are usefully to be understood as "palliative care" and a form of "life support". The issue has recently been given particular focus by Paul R. Ehrlich and Anne H. Ehrlich (*Can a collapse of global civilization be avoided? Proceedings of the Royal Society B*, 7 March 2013) with the introductory comment:

Virtually every past civilization has eventually undergone collapse, a loss of socio-political-economic complexity usually accompanied by a dramatic decline in population size... All those previous collapses were local or regional; elsewhere, other societies and civilizations persisted unaffected... But today, for the first time, humanity's global civilization -- the worldwide, increasingly interconnected, highly technological society in which we all are to one degree or another, embedded -- is threatened with collapse by an array of environmental problems... The human predicament is driven by overpopulation, overconsumption of natural resources and the use of unnecessarily environmentally damaging technologies and socio-economic-political arrangements to service *Homo sapiens* aggregate consumption.

Or, as asked by Rosalie Bertell (*The Future of Planet Earth: are we the last surviving generations? Radioactivity and the Gradual Extinction of Life? Global Research*, 12 December 2013).

Mapping decline: In exploring this phenomenon, whether framed metaphorically as a "collapse" or not, it could be said that humanity as a whole is effectively threatened by a disempowering "lifestyle disease", as variously argued (*Cognitive Implications of Lifestyle Diseases of Rich and Poor: transforming personal entanglement with the natural environment*, 2010; *Mind Map of Global Civilizational Collapse: why nothing is happening in response to global challenges*, 2011; *Mapping the Global Underground*, 2010; *Convergence of 30 Disabling Global Trends: mapping the social climate change engendering a perfect storm*, 2012).

The difficulty for "participants" in the process of decline -- possibly framed metaphorically as a "journey" -- is that the "map is not the territory". A "map" is then just one of the metaphors which may be of use. Explanations, from whatever perspective, may not be helpful -- as succinctly framed in the movie *As Good as It Gets* (1997): *I'm drowning here and you're just describing the water.*

Global dementia: The preoccupation of this argument acquires a particular focus with the death of Nelson Mandela, following an extended period in intensive care. World leaders assembled to praise his life achievement, notably including the leader of the country that had maintained his status as a terrorist until 2008 -- long after his receipt of the Nobel Peace Prize in 1993 (*US government considered Nelson Mandela a terrorist until 2008, NBC News*, 7 December 2013). Leaders travelled from the memorial event to a G8 Summit focused on dementia -- the serious permanent loss of cognitive ability. A briefing by Alzheimer's Disease International to the G8 indicated that global dementia is set to treble by 2050 to affect some 135 million people -- one in three seniors (*The Global Impact of Dementia 2013-2050*, 2013).

Given its track record, the G8 can however itself be usefully explored as a valuable metaphor for progressive loss of cognitive ability of the "global brain". Those assembled at the Summit focused on remedial research and palliative care to postpone the inevitable -- both metaphors for past strategic failure. Missing is any consideration of the metaphors through which the tragic experience of the dying can be fruitfully reframed -- including that of cultures and civilization itself. As the current enabling metaphor, global sustainability is as illusory as individual immortality (*In Quest of Sustainability as Holy Grail of Global Governance*, 2011). Ironically it is South Africa that remains the country with the highest mortality rate in the world -- far greater than when it was first the focus of development.

Entangling with information overload and explanatory closure

Limits to knowledge processing: A remarkable analysis of the collapsing energy system of the Roman Empire in its final phases has been made by Thomas Homer-Dixon (*The Upside of Down: catastrophe, creativity, and the renewal of civilization*, 2006). As argued separately with respect to the viability of any system (*General systems research and the VSM*, 2011), this analysis could be generalized to encompass the capacity of the current "knowledge-based" global civilization to elicit and process the information necessary to its survival -- rather than Homer-Dixon's specific "energy" focus. There is indeed the possibility of a memetic singularity (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009).

Consistent with Homer-Dixon's argument is the challenge of "bigness", first articulated by Leopold Kohr (*The Breakdown of Nations*, 1957; *Development without Aid*, 1973; *The Overdeveloped Nations*, 1977). As summarized by Paul Kingsnorth (*This Economic Collapse is a 'Crisis of Bigness'*, *The Guardian*, 26 September 2011), Kohr warned that the gigantist global system would grow until it imploded.

Recent history with regard to multinational corporations deemed "too big to fail" offers an indication in this respect. Such arguments are of relevance to the information processing capacity of the individual.

Navigating cycles: Homer-Dixon focuses on achieving the necessary resilience to navigate the [adaptive cycle](#). The nature of information overload as widely experienced, accompanied by hardening of the "arteries" of knowledge (cognitive "[arteriosclerosis](#)"?), arguably now precludes appropriate collective engagement with any cycle (*Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures*, 2008).

The condition could be reframed metaphorically through arguing that the requisite skills might be compared to those of riding a "monocycle", when the balance required for a "bicycle" is already a challenge in the governance of any collectivity -- suggesting that a "tricycle" or a "quadricycle" might prove more practicable. Separately a case has been made for the relevance of interlinked Borromean rings in three dimensions (*Attractive global governance through animation and "special effects"*, 2013)

Overload and premature closure: Ironically the challenge applies to any exploration of death. This runs the immediate risk of a form of death by explanatory closure -- especially under a high degree of pressure for simplicity (and avoidance of complexity). The large amount of relevant material exemplifies the need for a different approach to its navigation. Metaphorical use of "surf", "skate", "glide" and "skim", with respect to information is suggestive of the need for another kind of cognitive vehicle or modality. Preferences for "tweeting" are indicative (*Re-Emergence of the Language of the Birds through Twitter?* 2010; *Tweeter, Tweeter, Little Star; How I wonder what you are*, 2012). Metaphor offers the possibility of highly succinct imagery -- typically readily comprehensible -- consistent with the argument for memory aids (*In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007).

Any commentary on dying could best aspire to be its own metaphor -- as with the experiencers of that process. The approach in what follows is therefore to offer pointers and links rather than to engage in extensive elaboration. The many [references](#) are suggestive in their own right of valuable insights.

Breakdown of connectivity: Framed in its most general sense, death could be understood as a catastrophic breakdown in connectivity - - itself perhaps best understood as the meta-pattern of which [Gregory Bateson](#) declared:

The pattern which connects is a meta-pattern. It is a pattern of patterns. It is that meta-pattern which defines the vast generalization that, indeed, it is patterns which connect. (*Mind and Nature: a necessary unity*, 1979)

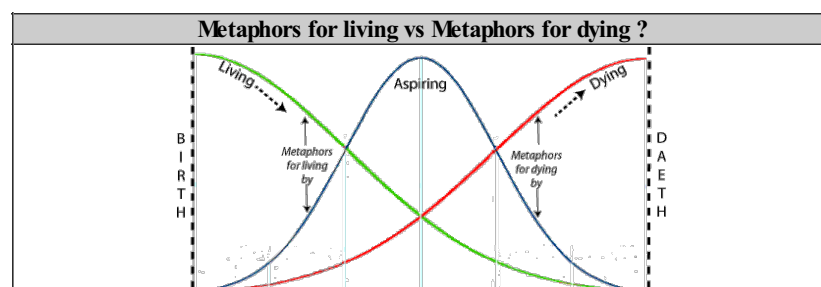
And it is from this perspective that he warns: *Break the pattern which connects the items of learning and you necessarily destroy all quality* (1979, pp. 8-11). This echoes [Christopher Alexander's](#) sense that: *in our time the languages have broken down* (*The Timeless Way of Building*, 1979).

Metaphor as meta-pattern: Given the constraint on processing information, there is then a case for considering metaphor as offering a form of (ad hoc) meta-pattern of connectivity. This is consistent with the observation of Bateson in explaining why "we are our own metaphor" to a conference on the effects of conscious purpose on human adaptation:

One reason why poetry is important for finding out about the world is because in poetry a set of relationships get mapped onto a level of diversity in us that we don't ordinarily have access to. We bring it out in poetry. We can give to each other in poetry the access to a set of relationships in the other person and in the world that we're not usually conscious of in ourselves. So we need poetry as knowledge about the world and about ourselves, because of this mapping from complexity to complexity. (Mary Catherine Bateson. *Our Own Metaphor*, 1972, pp. 288-289)

Governing complexity: Metaphorically, there is some charm to the fact that the human individual is home to a far greater number of living entities than the individuals composing any global civilization, as documented by the [Human Microbiome Project](#) (*Humans Carry More Bacterial Cells than Human Ones*, *Scientific American*, 30 November 2007). This could well be of significance for the governance of social processes characterized by patterns of relationships normally too complex for the mind to grasp -- or variously threatened by information overload. Of special interest in comprehending non-linear cyclic processes in relation to linear thinking, are the potential insights arising from the relation of rhythm to metre in poetry. In this sense the current "spastic" development of society, as a victim of economic cycles, may be seen as resulting from an a-rhythmic approach to governance.

Interplay of living and dying: The interplay of "Metaphors To Live By" and "Metaphors To Die By" could be represented by the following schematic indicative of the period from birth to death.



This suggests the gradual descent from life to death, and the rising significance of the latter -- each potentially framed and enabled by the characteristic metaphors, to different degrees at different times. The central peak reflects the increasing anticipation of (illusory) potential

from early life, followed by the increasing significance of deception and mortality -- as "reality sets in".

At any stage the relation between living and dying is governed by a form of [uncertainty principle](#) -- with the focus on either precluding focus on the other. Living might even be compared to embodiment of a waveform, with dying associated with any sense of bitterness and disintegration into parts -- reinforced by emergent problematic conditions of the parts so distinguished (*Being a Waveform of Potential as an Experiential Choice: emergent dynamic qualities of identity and integrity*, 2013; *Being Neither a-Waving Nor a-Parting: cognitive implications of wave-particle duality in the light of science and spirituality*, 2013).

Inner Game of Dying: The approach taken in what follows is first to comment on a range of approaches to death on which it is **not** intended to focus -- but highlighting clues of possible relevance to any "internal" perspective which is the concern here, namely the "Inner Game of Dying". The focus is therefore on how an individual or collective represents the prospect of death, and engages consciously with the process of dying -- and how that metaphorical "inner game" might be improved.

From a more general perspective, there is increasing articulated concern about the possible end of human civilization as currently known due to population overshoot and global warming. It is therefore appropriate also to consider how a civilization might meet its own death, as have many civilizations before

How could insight regarding dying be better organized when that is essentially about the increasing cognitive disorganization in terminal decline? In that process, conventional modes of organization become progressively incomprehensible and meaningless.

Recognizing the omnipresence of death

The following checklist is intended as an overview and reminder of the presence of death -- so readily ignored -- possibly implying metaphor or suggesting its use. Should such a reminder be required? Death is in many respects the greatest of secrets about which little is said -- other than through euphemism and metaphor. Whether with respect to the individual or to collectives, such avoidance and denial underlies inability to engage with the challenges of the times (*Global Strategic Implications of the "Unsaid"*, 2003; *Unthought as Cognitive Foundation of Global Civilization*, 2012).

Death is given prominence in popular science periodicals as a major driver of civilization (Michael Shermer, *Climbing Mount Immortality: death, cognition and the making of civilization*, *Scientific American*, 6 April 2012; *Death: a special report on the inevitable*, *New Scientist*, 20 October, 2012). The cover of the latter frames death as "*inescapable, universal, uplifting*", with an editorial introduced as follows:

So perhaps it is time for humanity to reinvent death, 3 million years or more after our first intimations of it. Indeed, the job is already underway: the proliferation of new types of death - industrial, vehicular and biochemical - has led to correspondingly complex legal codes. And there are those who seek to redefine death still further, by freezing their heads or replicating their minds outside their bodies - all to reify our long-held notions of passing beyond humanity. Such projects may seem outlandish. But even for sceptics, the idea of greatly deferring or even defying death outright is worth deep and sincere reflection: in thinking about death, we are also thinking about life. (*Memento mori: it's time we reinvented death*)

At the time of writing, [Roy Scranton](#) has framed a widely circulated concern (*Learning How to Die in the Anthropocene*, *The New York Times*, 10 November 2013).

Death of the insightful: There are many remarkable people, whose insights into death and dying can be fruitfully cited. They are now dead -- or personally faced with that inevitability. The point has been highlighted for the younger generation by [Terry Pratchett](#) (author of the widely popular 40-volume *Discworld* series), and recently diagnosed with a form of Alzheimer's disease (*Sir Terry Pratchett: Writing's as easy as ever but I can't tie my shoelaces*, *Express*, 21 June 2012). The latest novel in that series (*Snuff*, 2012) deliberately exploits the ambiguity of its title, notably with respect to nasty and unpleasant death (otherwise publicized through "[snuff movies](#)").

Although "business as usual" in global society is indeed "as easy as ever", it is increasingly questionable whether civilization is quickly reaching the stage of being incapable of "tying its own shoelaces". With respect to dying, as is said of politics, if you do not concern yourself with it, be assured that it will concern itself with you.

Death of the powerful: It is of course the case that even the most powerful face death, irrespective of the possibility of using their wealth to postpone the moment of truth. Death has become a central focus for the extremely wealthy in various ways. Iconic examples include the (displaced) preoccupation of [Bill Gates](#) of Microsoft with child mortality, that of [Steve Jobs](#) (of Apple), and that of [Larry Page](#) (of Google). At the time of writing the cover of *Time* magazine (30 September 2013) features the theme *Can Google Solve Death?* -- introducing [Calico](#), a Google-owned initiative to address issues of health and ageing (Harry McCracken and Lev Grossman, *Google vs. Death*, *Time*, 30 September 2013).

It is of course the case that many framing strategies for the future of global civilization, including those at the G8 Dementia Summit, will be faced with this experience personally. It could be said that global policy-making is done whilst "passing through" -- between the birth and decline of those so empowered.

Death as a statistic: This is the most obvious encounter with death, as cited in presentations in the media and articulated in a variety of reports on [mortality rates](#). Indications of fatalities, and probability of death from accidents, warfare and patterns of consumption, emphasize the impersonal appreciation of death framed in this manner -- as a "detail of history" -- primarily a preoccupation for the insurance industry concerned with the financial implications of "[Acts of God](#)".

Dependence on death: Human civilization is curiously dependent to a very high degree on the death of other organisms:

- energy, as fuel, mostly derives from death. Both petroleum and coal are fossil fuels formed from dead organisms. Wood fuel is derived from the death of trees, possibly "killed" for that purpose.
- food, as consumed by humans, is obtained as a consequence of the death of living plants and animals, frequently cultivated for that purpose
- health is now highly dependent on pharmaceutical products whose safety requires [animal testing](#). Worldwide it is estimated that the number of vertebrate animals ranges from the tens of millions to more than 100 million used annually. One estimate of mice and rats used in the US alone in 2001 was 80 million. Most animals are euthanized after being used in an experiment.
- clothing in many cases requires the death of animals, notably for leather and fur
- housing that depends on wood products naturally requires the destruction of trees, whether cultivated for that purpose or as a consequence of [deforestation](#). The latter in particular results in the death of many species dependent on such ecosystems.
- safety may require the elimination of wild animals endangering human lives or livelihoods, most notably framed as "pests"

Competition for survival: Humans compete intensively amongst themselves for career advancement, to guarantee an inheritance, and to ensure (exclusive) access to resources. This process can result in the death of other humans. The [casualties of the conflict in Iraq](#) are variously estimated to number up to one million; those in Syria are currently estimated to number 120,000. Perhaps more striking is the manner in which language referring to such physical death is borrowed as a means of framing the metaphorical death of individuals, groups or cultures -- most notably in eliminating competitors (provoking [bankruptcies](#)).

Death ensured (controversially) in practice: The issue of death is readily acknowledged in relation to the controversial issues of: euthanasia (whether voluntary or otherwise), suicide, abortion, capital punishment, extrajudicial execution, targeted assassination, infanticide, senecide, widow burning, and the like -- as notably documented by John Woods (*Engineered Death: abortion, suicide, senecide*, 1978). Further controversy may surround its association with enhanced interrogation, grooming to kill (suicide bombers, military training, kamikaze pilots), school shootings, or strategic commitment to mega-deaths (Mutually Assured Destruction).

Concerns may also extend to various forms of complicity in the death of others, including weapons manufacture (and marketing), the deaths of combat veterans (as a consequence of post-traumatic stress), and withholding aid to the suffering (who will die in consequence). These further increase the relevance and reality of the internalization of the deaths of others for whom some degree of responsibility is implied. It might be asked what consequences there are for groups and civilizations enabling individual and collective death.

The use of [human sacrifice](#) (or that of other animals) may be seen in this light, especially given its extreme importance to major cultures of the past and the manner in which more recent genocidal massacres can be understood as an unconscious replication of that collective proclivity.

Exposure to risk and its cultivation: There is a quite different degree of engagement with death (metaphorical or otherwise) through risk-taking. This is evident with regard to indulgence in extreme sports, substance abuse (especially smoking), and dangerous driving.

Recreation: Death, whether virtual or metaphorical, is central to entertainment and game playing -- variously aided and abetted by the media, most notably through its dramatisation and as the focus of online video games. Although death is rare or accidental in "[blood sports](#)", it may be deliberately sought in the case of those involving animals -- and much appreciated in the case of bullfighting or cockfighting. Related experiences may be sought in the case of hunting and fishing.

Exposure to aging terminal care: The prospect of death is made exceptionally evident in the case of terminal care, especially for the elderly in hospices. These may evoke a considerable investment in preventive health care and the possibilities of life prolongation -- even the quest for immortality.

Exposure to the dead: Through the funerals of friends and relatives, or those of other significance, people are commonly exposed to death framed through thanatological processes (undertakers, wakes, etc).

Commemoration and celebration of death: Commemoration of individual and collective death is common to many cultures. It may be associated with monuments (or their construction), with religious ceremonies, or with folk rituals (carnivals, notably those of [Santa Muerte](#)). Their design may be used to frame death in particular ways, as noted in the work of Eliecer Crespo Fernández (*Conceptualizations of Death in Epitaphs from Highgate Cemetery*, 2009; *The Language of Death: euphemism and conceptual metaphorization in Victorian obituaries*, *SKY Journal of Linguistics*, 2006).

The engagement with death may be framed otherwise in song or poetic form ([Harold Bloom](#) (Ed.), *Till I End My Song: a gathering of last poems*, 2010; Helen Vendler, *Last Looks, Last Books: Stevens, Plath, Lowell, Bishop, Merrill*, 2010; [Richard Strauss](#), *Four Last Songs*, 1948; [Yoel Hoffmann](#), *Japanese Death Poems: written by Zen monks and haiku poets on the verge of death*, 1998).

Although collective death may be commemorated to a degree, the associated culture is readily forgotten. This is evident with respect to the relatively recent "deaths" of corporations, intentional communities, or international organizations. No corresponding effort is made to derive significance from the leadership of dying institutions although cynical reference may be made to the "[swan song](#)" conceived in Ancient Greece.

There is little need to remember dead religions (and their gods) or dead cultures and their languages -- despite recognition of the manner in which some still living may be endangered. With respect to global civilization, what might be learned from those international organizations now "dormant" or "dead" but with a shadowy "existence" in archival form in libraries or in cyberspace? These are profiled by the *Yearbook of International Organizations*, but what of the strategic initiatives they engendered?

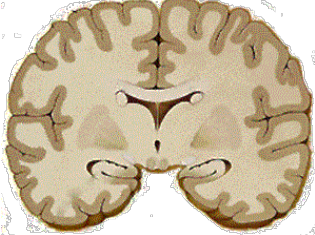
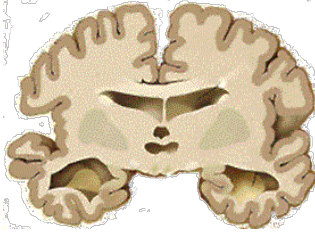
Death in relationships: A strangely tragic form of metaphorical death may be experienced in relationships, most obviously through estrangement. One person may declare to the other: *you are now dead to me*. This may be a feature of breakdown of a marriage or a romantic liaison, but more tragically involving progeny. More curious is the sense in which the climax of sexual intercourse may be

framed as a "little death" (*la petite mort*) -- and associated with post-coital tristesse.

Near-death experience: The framing of death and dying may be most profoundly influenced by any "near-death experience" as documented by the [International Association for Near-Death Studies](#) -- and claimed by some eightmillion Americans (Susan Blackmore, *Dying to Live: Near-Death Experiences*, 1993; Chris Carter, *Science and the Near-Death Experience: how consciousness survives death*, 2010). Again it might be asked whether and how any collective might have such an experience -- and what it would imply for its future.

Pattern of adjustment through stages of recognition of imminent death (inspired by Elisabeth Kubler-Ross, <i>On Death and Dying</i> , 1969).	
<i>Individual</i> (<i>Five Stages of Grief</i>)	<i>Collective (group, culture, civilization)</i> (<i>Five Stages of Decline?</i>)
denial	leadership denial
rage	rage, protest, civil unrest
bargaining	negotiation
depression	disintegration
"acceptance"	"resignation"

The collectivbe case can be further elaborated through recognition of the metaphorical "death" of those with reputations to protect. The [typology of cover-ups](#) provided by *Wikipedia* could be understood as a development of the pattern in both columns -- individual or collective. Especially striking is the current pattern of denial and rage at any implication of civilization death.

Visual metaphor of the "global brain" of a collapsing global civilization? Appropriate to the occasion of the G8 Summit on Dementia and its aging participants Using a comparison of a normal aged brain (left) and the brain of a person with Alzheimer's disease (right). (images adapted from <i>Wikipedia</i>)	
Normally-brained individual (group, culture or civilization?)	Decliningly-brained individual (group, culture or civilization?)
	

The right-hand image is indicative of:

- emerging gaps in forms of knowledge requiring a global focus
- probability of systemic neglect in envisaging remedial initiatives
- problematic relationships between short-term and long-term memory, with implications for constraints on learning
- unasked questions in response to emerging situations
- diminishing competence in application of existing know-how and responding to new possibilities

There is a case for imagining a form of "global brain scan", analogous to the conventional "brain scan" (see [animation](#)) in order to detect indications of decline. The procedures of the *Encyclopedia of World Problems and Human Potential* are indicative of such a possibility (*Simulating a Global Brain -- using networks of international organizations, world problems, strategies, and values*, 2001).

Conventional metaphors to die by

Dependence on death metaphors: With respect to the general approach here, of interest is the existence of metaphors readily applied to both individuals and collectives. The most obvious is perhaps collapse. As pointed out by Louis Marin (*On Representation*, 2001):

We can never speak of death, except through image and metaphor. A metaphor of death, of my death, a displacement, a transfer that, if it is to be coherent with what it displaces or what is displaced, is and can only be an effacement, an erosion: the metaphor of death erases its own wake on the surface of language. (p. 278)

Metaphors can kill: Lakoff and Johnson asserted through their classic *Metaphors We Live By* (1980), that metaphors have the power to influence the ways in which people perceive and make the world. Metaphor can expand the repertoire of cognitive associations, especially under circumstances where there is a deficit of empirically verifiable knowledge. As noted above, their study engendered a complementary focus on "Metaphors To Die By".

Lakoff has elaborated his concern with the strong point that "metaphors can kill" (*Metaphors That Kill: the Nation as Person, and how metaphors frame our perception of war*, 19 March 2003; *Metaphor and War: the metaphor system used to justify war in the Gulf*, 1991; *Metaphors of Terror*. 2001), as previously discussed (*Manipulative Metaphors in Response to Terrorism: semantic and strategic confusion from mixed metaphors*, 2005).

Metaphors of collective dying? It might therefore be expected that an *Encyclopedia of Death and Dying* (2001) -- necessarily focused

on the individual -- could usefully extend this focus to the collective. As with compilations on endangered species, cultures and cultural heritage, there is arguably a strong case for an *Encyclopedia of Dying Cultures and Civilizations*. Any deficiency in this respect encourages reinterpretation for collective dying of its valuable considerations, if only through the thinking applied to individuals in the existing *Encyclopedia* in key sections such as the following:

- *Metaphors and Euphemisms*: With respect to death of the collective especially, to what extent are these used to inhibit effective appreciation of the process and the nature of imminent death?
- *Communication with the Dying*: Through what media is it possible to communicate meaningfully with the dying and to appreciate fully what emerges from any dialogue -- especially in the case of a group, a culture, or a civilization?
- *Why People Have Difficulty Communicating with Dying Persons*: With respect to a dying global community, the relevance of this concern has become especially evident (Adam Corner, *Climate Science: why the world won't listen*, *New Scientist*, 26 September 2013; Karen A. Cerulo, *Never Saw It Coming: cultural challenges to envisioning the worst*, 2006). Is there a need for more powerful metaphors to supercede an ineffectual mode of discourse (*In Quest of Uncommon Ground: beyond impoverished metaphor and the impotence of words of power*, 1997)

Similar remarks could be made with respect to other sources:

- *Death and Dying Language: Euphemisms, Slang, Metaphors & Expressions*: A special collection of more than 200 euphemisms, metaphors used in place of the words dying, death or dead. The collection also includes many of the often amusing slang expressions that people use when talking about death or dying.
- *Death and Dying in Everyday Language*: Death and Dying language is often used in situations that have nothing to do with death, as part of the expressions used in daily conversations. This page provides a list of some of the more commonly used death, dying, and killing terms and expressions.
- *Euphemisms for Physician Assisted Suicide and A Sick Patient Ending His/Her Life*: What do you call it when a sick patient deliberately chooses to end his or her own life? What term is used to describe this process? Are there other terms that better describe physician assisted suicide? President of the Euthanasia Research and Guidance Organization, Derek Humphry, takes a look at some of the terms and euphemisms used to describe physician assisted suicide and what happens when a sick patient chooses to end his or her own life.
- *Death and Dying Euphemisms*: This includes sections on: Technical Writers' Euphemisms for Death, Cooking Euphemisms for Death, Internet Euphemisms for Death, and Writers Euphemisms for Death, 2003

Informing the dying experience through generative metaphor: Of further interest is the distinction between a simple metaphor, used for rhetorical and illustrative purposes, and a generative metaphor regarding the experiential process of dying. This follows concern with its implications for the collective (*Generative metaphor and policy-making*, 1995) in the light of its original conception by Donald Schön (*Generative Metaphor: a perspective on problem setting in social policy*, 1979). It is perhaps highly significant that the exploration of the role of generative metaphor with respect to death would appear to be limited to that of Rachel Rosen (*A Generative Metaphor: dying and death in young children's imaginative play*, 26 November 2013) in a presentation to a recent symposium of the British Sociological Association on Death, Dying and Bereavement.

References on metaphors to dying: With respect to the theme of this exploration, the following explicitly address the sense of "Metaphors To Die By":

- Joel P. Bowman: *Metaphors We Die By (and For)* (*SCS Matters*, 21 May 2011)
- Bert Bultnick: *Metaphors We Die By: conceptualizations of death in English and their implications for the theory of metaphor*. (Universiteit Antwerpen, 1998)
- Fabiano Dalto, Huáscar Fialho Pessali and Ramón García Fernández: *Metaforas que Matam (Metaphors We Die By)*
- Franklin E. Horowitz: *Metaphors We Die By: George Lakoff's "Metaphors Of Terror"*.
- Craig R. Hovey: *Metaphors We Die By: how Christian pacifists make better caregivers* (*Toronto Journal of Theology*, 19, 2003, 2, pp. 183-198)
- Cynthia Kros: *Metaphors We Live (and Die) By* (*English Studies in Africa*, 55, 2012, 2, pp. 54-68)
- April D. Marshall: *Metaphors We Die By* (*Semiotica*, 161, 2006)
- Brigitte Nerlich and Rusi Jaspala: *Metaphors We Die By? Geoengineering, Metaphors, and the Argument From Catastrophe*. (*Metaphor and Symbol*, 27, 2012, 2, pp. 131-147)
- Rob Potts: *Metaphors we live (and die) by* (*HighWire Innovation Blog*, 10 April 2013)
- Suzanne Romaine: *War and Peace in the Global Greenhouse: metaphors we die by* (*Metaphor and Symbolic Activity*, 11, 1996, 3, pp. 175-194)
- Michael Shapiro: *Metaphors We Die By (Metaphorically)* (*Language Lore*, 16 January 2012)
- Donald Weasenforth: *Metaphors We Live and Die By: using conceptual metaphor to leverage public support for initiation and prosecution of the Iraq War* (2003)

Metaphors of decline: In considering a more systematic approach to potentially relevant metaphor, one lead is offered by the classic framework of Gareth Morgan (*Images of Organization*, 1986). These essential static images are more fruitfully construed dynamically as the process of emergence of higher degrees of organization -- of greater (cognitive) negentropy, as contrasted with decline to greater entropy. This raises the question of what might be the images of "disorganizing" as they relate to the progressive breakdown of connectivity. Speculatively these could take the following form.

Images of Organization (Gareth Morgan)	Images of "disorganization" and decline ?	
	Images of terminal individual "disorganization" and decline	Images of terminal collective "disorganization" and decline

machines	breakdown	breakdown
organisms	fatal disease	loss of coordination
brains,	dementia	collective dementia
cultures	alienated (feral)	barbarism
political systems	spastic (autistic)	failed state (disorder)
psychic prisons	hidebound	fundamentalism
flux and transformation,	ungrounded (flighty?)	value dissipation
instruments of domination	megalomania?	dictatorship

With respect to the individual, the varieties of "disorganization" can be associated with "diseases" of connectivity (understood metaphorically) -- and more particularly those relating to the processing of meaning by a person in process of dying (*Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures*, 2008; *Cognitive Implications of Lifestyle Diseases of Rich and Poor*, 2010). These diseases are also evident in the case of connectivity within a collective, as emphasized in an earlier variant (*Networking Diseases*, 1978).

Examples: Suggestively corresponding to Gareth Morgan's articulation, Sam Alexander (*10 Metaphors for Death*, *Xamuel.com*, 2009) comments on the following metaphors: deep sleep, a climax, an awakening, the void, a gift, game over, judgment, forgetting, the end of the universe, and life. He frames these with the questions:

What awaits us at the end of this mortal journey? Is death like a deep sleep, or is it the exact opposite, a waking-up from a deep sleep? There are many different ways of viewing death, and each has its own unique consequences to how we spend life.

Organizing the variety of metaphors of dying: Another lead to a systematic approach is offered in terms of "axes of bias" elaborated by W. T. Jones (*The Romantic Syndrome: toward a new method in cultural anthropology and the history of ideas*, 1961). These are potentially susceptible to adaptation in terms of the diversity of ways it might be preferred to experience dying. The table below adapts the paired extremes to highlight such contrasts, both for the individual and for the collective.

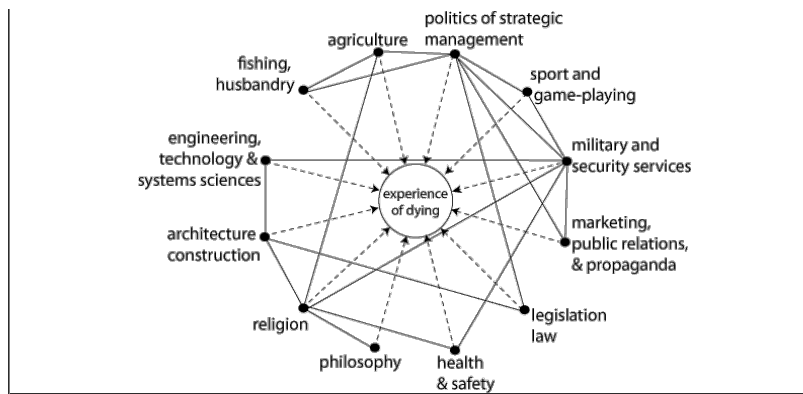
Axes of bias (W. T. Jones)	Images of Individual Dissociation?	Images of Collective Dissociation?
Order	system, structure, conceptual clarity, etc.	?
<i>Disorder:</i>	discreteness, plurality, diversity, etc.	?
Static	changeless, eternal, etc.	?
<i>Dynamic</i>	movement, for explanation in genetic and process terms, etc.	?
Continuity	wholeness, unity, etc	?
<i>Discreteness</i>	wholeness, unity, etc	?
Inner	being able to project oneself into the objects of one's experience (to experience them as one experiences oneself)	?
<i>Outer</i>	relatively external, objective relation to them.	?
Sharp focus	clear, direct experience	?
<i>Soft focus</i>	threshold experiences, felt to be saturated with more meaning than is immediately present.	?
This world	belief in the spatio-temporal world as self-explanatory	?
<i>Other world</i>	belief that it is not and can only be comprehended in terms of other frames.	?
Spontaneity	chance, freedom, accident, etc	?
<i>Process</i>	explanations subject to laws and definable processes.	?

Cultures engendering metaphors of death and dying

There is of course a vast literature from the cultures using death as a metaphor or offering understandings of the process of dying. As with the framework of Gareth Morgan and W. T. Jones, other patterns of understanding of dying could be explored (*Systems of Categories Distinguishing Cultural Biases*, 1993).

The euphemisms and metaphors indicated above could be fruitfully clustered by the cultures engendering them. The following image tentatively suggests one possibility.

Indicative schematic of the "cultures" cultivating metaphors of dying (suggesting the pattern of metaphoric borrowings between them)



Military and security services: With its traditional mandate for killing to protect the collectivity and its members, this culture has long provided a rich source of metaphor for death or threat of death -- most evident in the Mutually Assured Destruction which framed the Cold War. Death has been intimately intertwined with honour and the sense of dying honourably.

Sport and game-playing: As a substitute for mortal combat, sport and game-playing have borrowed many metaphors from the military context. Most obviously the sense of: *You win, you live; You lose you die*. This may be reinforced by pre-game threats, with risk-taking enhanced by gambling on the outcome. This pattern extends into card games and online video games.

Politics of strategic management: Business and politics have borrowed many metaphors from the military and sporting environments. Business language makes frequent reference to "slaughtering the competition" and "making a killing". The language of this culture is readily understood to have dominated events leading to the financial crisis of 2008. "Losers" are readily reframed as "dead" -- only the "winners" are "alive". Moribund groups and societies may well be ignored as irrelevant or reframed for asset stripping. "Vulture" is used in describing this process. Every effort is made to "kill" any opposition, with little sense of the valuable complementarity associated with diversity. Given such language, it can be usefully asked whether other kinds of metaphors are required to ensure the sustainability of global initiatives (*Enhancing Sustainable Development Strategies through Avoidance of Military Metaphors*, 1998). Are the "power words" of this culture inadequate to the challenge (*In Quest of Uncommon Ground: beyond impoverished metaphor and the impotence of words of power*, 1997)?

Public relations, marketing and propaganda: This culture of "spin" specializes in highlighting what is valued to the exclusion of alternative perspectives -- whose validity is denied, possibly to the point of ensuring the elimination of those proposing them. Inadequacies are vigorously reframed, possibly with force (see *Wikipedia Typology of cover-ups*). It is this culture which engages in memetic warfare to frame the necessary death of competing groups -- ensuring legitimacy for just war, and even for various forms of genocide.

Architecture and construction: This culture is fundamental to celebrating in physical form the deaths of past exemplars and the justification for future death, notably as dubiously associated with sacrifice (whether human or otherwise). The design is typically conceived as an aid to individual and collective memory (*Enstoning in Memorials and Monuments*, 2012). Buildings and monuments are however themselves potential metaphors of death through their structural failure, deterioration and eventual dismemberment.

A striking example is provided by the architecture of Ancient Egypt, in particular that of [Padiamenope](#) -- [Theban Tomb TT33](#), the largest non-royal site in the [Valley of the Kings](#). Unusually, as noted by archaeologists, the inscriptions instruct those of later generations: *Those who will yet be born, may they enter the tomb and see what is inside. You who enter this tomb, look and try to understand. Read and restore these inscriptions.*

Agriculture: The culture of harvesting, with the death of plants that it implies, has appropriately engendered the metaphor of the [Grim Reaper](#) as the personification of death. Curiously the emergence of genetic modification of crops has given rise to [genetic use restriction technology](#) (GURT), colloquially known as "terminator technology" or "suicide seeds". This restricts use of genetically modified plants by causing second generation seeds to be sterile. Agriculture, most recently through the strategies of agribusiness, has sustained the dubious associations of "development". This has been successfully framed as life-enhancing -- despite late recognition of the loss of vital biodiversity consequent on "clearing the land" and eliminating "pests".

Animal husbandry and fishing: The early culture of hunting and fishing has ensured a degree of dissociation from death and dying -- most evident with respect to the operations of abattoirs and slaughterhouses.

Health and safety: As noted by April D. Marshall (*Metaphors We Die By*, *Semiotica*, 161, 2006):

Medicine and language have had a tumultuous relationship at best. The two fields inform and describe each other. The methods of each have been applied to the other at various times in history. The medical symptom and the linguistic sign have much in common and yet are not the same. Nonetheless, literature offers us a perspective on our cultural perceptions of certain realities and disease is unmistakably one of the most ambiguous of those realities. The unique combination of medical thought and linguistic expression present in literary metaphors incorporating or referring to illness reveals a conceptual understanding of health that informs our interpretation of related signifiers. This study is an attempt to identify and explore some of the most prevalent metaphors and metonymies related to disease and through the process, comprehend the way in which culture thinks about the more general concept of health.

Raymond Fox (*What is meta for?* *Clinical Social Work Journal*, 17, 1989, 3, pp 233-244):

Metaphors provide bold, rich and distinctive windows on the world. They offer dynamic and dramatic views beyond the surface of things into their deeper significance. This paper offers guidelines for discovering and developing metaphors in clinical practice with individuals and families. It also demonstrates how dramatization techniques are used to extend, enlarge and shape metaphors for effective diagnosis and treatment. It builds upon real case material of active metaphorical work with individuals and families for illustrative exposition.

Specific discussion with respect to "nervoso" (nervousness) is provided by Nancy Scheper-Hughes (*Nervos and Fraqueza: Metaphors to Die by*, In: *Death Without Weeping: the violence of everyday life in Brazil*, 1993).

Law and legislation: As might be expected, legality frames death in a variety of very particular ways, most evident in consideration of the controversial issues of homicide, capital punishment, abortion, and euthanasia. The issue is fruitfully explored by Steven L. Winter (*Death Is the Mother of Metaphor*, *Harvard Law Review*, 105, 1992, 3, pp. 745-772) in a review of *The Wallace Stevens Case and the Practice of Poetry* (1991) by Thomas C., Grey. Related insights are offered by Richard E. Vatz and Lee S. Weinberg (*Metaphor and Law*, *Law and Society Review*, 21, 1987, 5, pp. 845-847) in a review of *Lying Down together: law, metaphor and theology* (1985) by Milner S. Ball. Metaphors can be used as a basis for creating models in legal theory, as argued by Finn Makela (*Metaphors and Models in Legal Theory*, *Metaphors and Models in Legal Theory, Les Cahiers de Droit*, 52, 2011, 3-4).

Technology, engineering and systems sciences: "Dying" and "death" are recognized metaphorically in obsolescence of parts of and systems -- especially in the event of system failure. Notably evident in this respect is a standard Google Chrome error message in response to a dead link or failure to load a page: *He's Dead Jim*. Failure is explored more systematically by John Gall (*Systemantics: how systems work... and especially how they fail*, 1978).

With respect to engineering, valuable commentaries on geoengineering have been provided by Rusi Jaspala and Brigitte Nerlich in various works, whether separately or in collaboration.

Geoengineering promises to alter global climate patterns and thereby avoid the potentially catastrophic consequences of climate change... However, we should not forget that it is also a linguistic problem. As I. A. Richard said in his *Philosophy of Rhetoric*, a command of metaphor plays a role in the control of the world that we make for ourselves to live in (see p. 155). This means that we make the world we live in by the language we speak in it, especially through the use of metaphors. Metaphors make us see one thing in terms of another and then act in specific ways according to this new way of seeing. What does this mean for geoengineering? What language is emerging in the context of geoengineering? How might people respond to such language? (*Geoengineering and (un)making the world we want to live in*, *Geolog*, 31 July 2013)

Using examples recalling the approach of Gareth Morgan, the authors ask in particular:

... how this option for dealing with the problems posed by climate change were framed through the use of conceptual and discourse metaphors and whether one can argue that these are metaphors we "live by" or metaphors we might "die by". Findings show that an overarching argument from catastrophe was bolstered by three conceptual master-metaphors, namely *The Planet is a Body*, *The Planet is a Machine*, and *The Planet is a Patient/Addict*, linked to a variety of discourse metaphors, older conceptual metaphors, and clichés. (*Metaphors We Die By? Geoengineering, Metaphors, and the Argument From Catastrophe*, *Metaphor and Symbol*, 27, 2012, 2, pp. 131-147)

Philosophy: A collection of commentaries on the final thoughts of 200 philosophers and their understanding of death has been compiled by Martin Crowley (*Dying Words: the last moments of writers and philosophers*, 2000). The collection is frustrating in that the author repeats the strong point made by Cicero that *to study philosophy is nothing but to prepare one's self to die*.

However the commentaries on each philosopher are not especially helpful in enabling anyone to comprehend the scope of the understanding of a given philosopher with regard to death. Typically this is reflected only in a succinct, even laconic, phrase. Given the range of philosophies represented, also missing is any typology of attitudes towards death -- understandings with their respective coherence, however much this may be questioned from another perspective.

With respect to the semantics of dying, James Sexton notes:

In suggesting the use of "given back" as a metaphor for death, Epictetus [in *The Encheiridion*, p. 14] brings to light several points regarding the nature of our conception of death and dying, which neither he, nor other investigators of death, seem to have taken any further: he recognizes the role of metaphor in providing a foundation for our understanding of the "unknown"; he recognizes these metaphors as culturally constructed, and culturally reinforced; finally, and perhaps most importantly, he realizes that these metaphors, since they are our own creations, may be replaced when they no longer offer us the increased understanding, or at least reduced perplexity, which they are intended to provide.

Epictetus was on to something. However, it would appear that he, as well as much of the world's thinkers on death and dying, have not pursued his discovery further. In doing so it appears that they may have abandoned a critical factor in our personal and cultural understanding of death. They confuse, as in the ancient Zen saying, "A finger pointing at the moon for the moon itself." (*The Semantics of Death and Dying: metaphor and mortality*, *A Review of General Semantics*, 54, 1997, 3, pp. 333-345).

Religion: There is obviously both a deep concern with death within most religions and a very extensive literature as a consequence. It would seem that most religions typically focus either on some understanding of the "afterlife", on appropriate advice to the dying (whether as consolation or in preparation), or on the process of grieving for them thereafter. The process may well be seen as a final opportunity to ensure conversion to the faith and/or expression of regret for inadequacies in life in order to "set the mind in order". There is seemingly relatively little concern for the experience of dying, other than might be framed as "coming to terms" with it, "putting one's affairs in order".

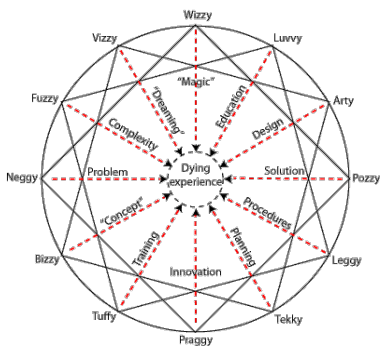
The literature can be clustered as follows:

- contemplation of death (as discussed below)
- the art of dying (as discussed below)
- manuals variously recognized as "books of the dead" and descriptions of the afterlife (Stanislav Grof, *Books of the Dead: manuals for living and dying*, 1994; James Lewis. *Encyclopedia of Afterlife Beliefs and Phenomena*, 1995). These appear to focus on the experience of the person immediately after death, offering advice on attitudes and decisions that may be made in response to them. These have been preceded by rites of passage, common in many ancient and modern primitive cultures, reflecting transitions during the life phases of birth, puberty, marriage and death. Of potentially greater relevance is the understanding of such commentaries in relation to the experience of life as a form of dying continually experienced. In this sense they suggest ways of thinking about the period leading up to the moment of death.
 - Christian: *Ars Moriendi* texts of medieval Europe, emphasizing how the devil would attempt to interfere with the salvation of the dying.
 - Islam: Understandings reflected in various works (Abd al-Rahim ibn Ahmad Qadi, *Islamic Book of the Dead: a collection of Hadiths on the Fire and the Garden*, 1977; Jane Idelman Smith and Yvonne Yazbeck Haddad, *The Islamic Understanding of Death and Resurrection*, 2002)
 - Judaism: *Ma'avar YaBok* (written by Rabbi Aaron Berechiah in 1626) is the classic Jewish text on death and dying (Simcha Paull Raphael. *Jewish Views of the Afterlife*, 1996; Rabbi Menasseh ben Israel. *Nishmat Hayyim: The Soul of Life*)
 - Hinduism: *The Sraddha: the Hindu Book of the Dead*. (1995)
 - Tibetan Buddhism: *Bardo Thodol*
 - Egypt: *Book of the Dead*
 - Mayan: *Popol Vuh* (Dennis Tedlock, *Popol Vuh: the definitive edition of The Mayan Book of the dawn of life and the glories of gods and kings*, 1996)

The focus here is on how death is framed or reframed, for the person engaged in the process, or for those observing it

Potential complementarity of perspectives of "cultures" on dying: There is a case for experimenting with configurations of "languages" through which the experience of dying is framed. The following is one such experiment, adapting "languages" of governance as previously explored (*12 Complementary Languages for Sustainable Governance*, 2003; (*Enabling a 12-fold Pattern of Systemic Dialogue for Governance*, 2011).

Example of a tentative elaboration of a 12-fold array of clusters of complementary options
 adapted from a larger variant in *Reframing the Game of Strategic Dilemmas* -- caricaturing the "languages" of governance
 [the two tables on the right provide access to earlier and later interpretations of the "languages"]



Luvvy	Fuzzy	Tuffy	Leggy
Tekky	Arty	Vizzy	Bizzy
Neggy	Praggy	Pozzy	Wizzy

Symbolism	Dynamics	Simulation	Creativity
Design	Patterning	Rhythm	Self-reflexivity
Paradox	Technology	Transformation	Insight

Art of dying: imagery vs practice

Imagery: There is an extensive literature offering depictions of death as theology, as fiction, as poetry, or as visual images.. Given the nature of these media, these are necessarily all focused on death itself -- and especially from an external perspective -- and not on the dying process as experienced subjectively. The focus may extend into imaginative representation of the afterlife -- as it might be experienced as an externality. Citing the cognitive scientist Mark Turner (*Death is the Mother of Beauty*, 1987), George Lakoff notes with respect to metaphors of death:

In studying a wide variety of poems about death in English, we found that, in poem after poem, death was personified in a relatively small number of ways: drivers, coachmen, footmen; reapers, devourers and destroyers; or opponents in a struggle or game (say, a knight or a chess opponent). The question we asked was: Why these? Why isn't death personified as a teacher or a

carpenter or an icecream salesman?....

The preservation of generic-level structure explained why death is not metaphorized in terms of teaching, or filling the bathtub, or sitting on the sofa. They simply do not have the same causal and overall event structure, that is, they do not share 'generic-level structure' (*The Contemporary Theory of Metaphor*, 1993).

As art, such representation may take dramatic form. It is readily recognized that the theme is central (if not a requisite) to movie and TV drama, to news presentations of conflicts, as well as to (online) video games. Considerable efforts may be made to represent the dying process as an observable and to convey some sense of the psychology of the process through the expressions of the person dying -- typically in terms of suffering experienced. The quest for detail may extend perversely to the reality depicted in "snuff movies". Curiously enthusiasm does not extend to the slaughter of animals or to their experience in laboratory experimentation.

In general, the experience of the dying is designed out. This necessarily applies to an even greater degree to the case of dying groups, cultures or civilizations.

Practice: As noted above with respect to "Books of the Dead", religions tend to offer a particular understanding of death -- and of appropriate practices in anticipation of that finality. Examples include:

- Kenneth Kramer. *The Sacred Art of Dying: how world religions understand death*. Paulist Press, 1988 [extracts]
- Donald F. Duclow. *Dying Well: The Ars Moriendi and the Dormition of the Virgin*. In: Edelgard E. DuBruck and Barbara Gusick (Eds.), *Death and Dying in the Middle Ages*. Peter Lang, 1999. [text]
- John Shinnars (Ed.) *The Art of Dying Well, in Medieval Popular Religion, 1000-1500: a reader*. 1997:
- Jean-Yves Leloup and Marie de Hennezel. *L'Art de Mourier: traditions religieuses et spiritualité humaniste face à la mort*, 1997
- [dying well](#)
- [Encyclopedia of Death and Dying](#)

These are readily perceived as boring or irrelevant to the modern mindset. This is possibly because of the impoverishment of their metaphors in comparison with familiarity with current multimedia supports for the imagination. A contrasting approach is that of Timothy Leary, Ralph Metzner, and Richard Alpert *The Psychedelic Experience: a manual based on the Tibetan Book of the Dead*, 2008).

The process has been addressed by Peter Fenwick and Elizabeth Fenwick (*The Art of Dying*, 2008) understood as a contemporary version of the medieval *Ars Moriendi* -- a manual on how to achieve a good death. This argues for the need to ace up to death, and embrace it as a significant and sacred part of life. The book reviews how other cultures have dealt with death and the dying process and compares this with phenomena reported through recent scientific research. It also describes the experiences of health care workers who are involved with end of life issues who feel that they need a better understanding of the dying process, and more training in how to help their patients die well by overcoming the common barriers to a good death, such as unfinished business and unresolved emotions of guilt or hate.

Dialogue with death: This is a theme explored by a range of authors:

- Eknath Easwaran (*Dialogue with Death: a journey through consciousness*, 1993)
- Arthur Koestler (*Dialogue with Death*, 1942)
- Kenneth Kramer (*Beginning: Dialogue with Death*, In: *The Sacred Art of Dying: how world religions understand death*, 1988, pp. 5-10)
- James Hillman and Sonu Shamdasani (*Lament of the Dead: psychology after Jung's Red Book*, 2013) -- notably concerned with ensured that the lessons of the dead are heard
- Mark S. Umbreit, Betty Vos, Robert B. Coates, and Katherine A. Brown (*Facilitated Dialogue on Death Row: family members of murder victims and inmates share their experiences*. In, James R. Acker and David R. Karp (Eds.), *Wounds that Do Not Bind: Victim-Based Perspectives on the Death Penalty*, 2006, pp. 349-375).

As argued by Ian Kinnes (*Dialogues with Death*, 1981):

Food, reproduction and death are the common factors of humanity, and the greatest of these is death. Human societies are moulded by their dialogues with death: frameworks, by which individuals and communities establish their own world-picture, are stretched and then defined by the need to comprehend and incorporate mortality.

Richard Freadman (*Threads of Life: Autobiography and the Will*, 2001) cites with admiration, Koestler's articulation of his own experience in a situation faced with imminent death during the Spanish civil war:

... that dream-like feeling of having one's consciousness split in two, so that with one half of it one observes oneself with comparative coolness and aloofness, as though observing a stranger. The consciousness sees to it that its complete annihilation is never experienced. It does not divulge the secret of its existence and its decay. No one is allowed to look into the darkness with his eyes open; he is blindfolded beforehand (*Dialogue with Death*, p. 117)

Potentially of greater relevance to this argument is the dialogue with groups and cultures which are in process of dying -- as has been undertaken with speakers of endangered languages. The approach could be extended to the consequences of corporate downsizing and permanent layoffs.

Death contemplation: Such contemplation has been widely recommended in a number of traditions and as a part of spiritual practice.

- Don Kuiken and Gregory Madison. The Effects of Death Contemplation on Meaning and Purpose in Life. *Omega: Journal of Death and Dying*, 18, 1987-88, 2, pp. 103-112)
- Ayya Mie Vimala. Crossing the Realm of Death: contemplation of death in Buddhist meditation, literature and living experience. AuthorHouse, 2008
- V.F. Gunaratna. Buddhist Reflections on Death. Kandy, Buddhist Publication Society, 2007 [text]

For R. Raj Singh (*Death, Contemplation and Schopenhauer*, 2007) the true vocation of the "authentic" philosophical life:

... death is not only a theme but the theme of philosophy, and . . . the very impetus to philosophize issues from a reflection on death" (p. 10). The classics of ancient and modern philosophy, in both Western and Asian civilizations, attest to the vocation of philosophy as "death contemplation." Death is seen as the inspiration of the search for wisdom in Socrates, who characterizes philosophy as "rehearsal for death (thanatoi meletos)" (pp. 1-4); in Plotinus, who extols "the attempt to free one's soul from 'matters bodily'" (pp. 4-8); in Nachiketias, who seeks knowledge of the soul from the god of death in the Kat.ha Upanis.ad (pp. 13-22); in the bhakti poet Kabir, who praises fearlessness of death

It is less clear how this extends into the experience of dying -- potentially informing it in ways that are subtle and less evident in conventional discourse.

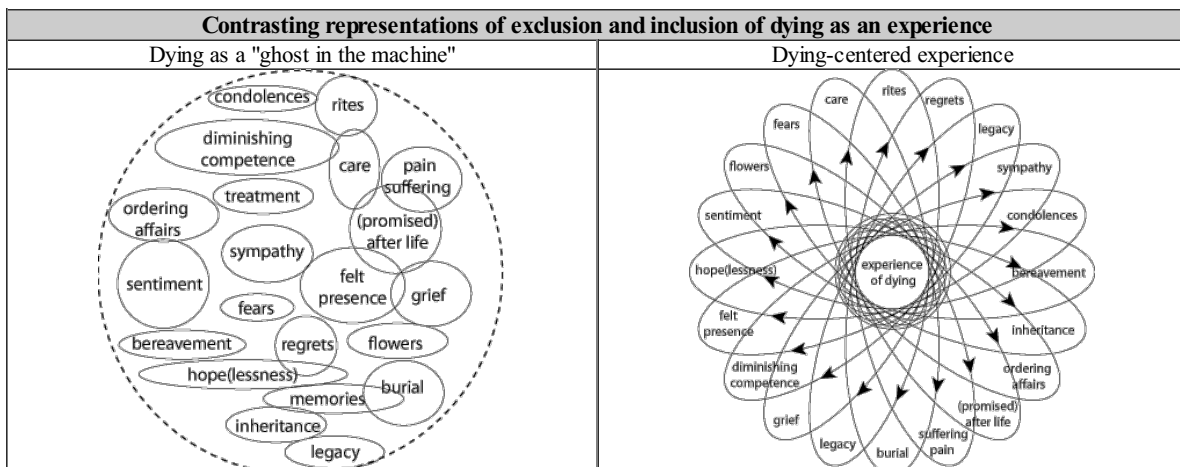
James Sexton comments on an early Greek philosopher as follows:.

In his *The Encheiridion* or "Handbook", stoic philosopher Epictetus speaks repeatedly of the importance of keeping death and dying in one's consciousness. Being aware of the reality of death is emphasized by Epictetus, who suggests that the individual, *Let death and exile and everything that is terrible appear before your eyes every day, especially death*, as doing so will prevent anything contemptible in your thoughts, as well as *craving anything excessively*. (p.16) The philosopher does not, however, reserve his discourse only for the matter of when death is contemplated, but also offers advice on how such contemplation should take place. (*The Semantics of Death and Dying: metaphor and mortality, A Review of General Semantics*, 54, 1997, 3, pp. 333-345)

As a psychotherapist, **Thomas Moore** argues the case for such reflections, if only in the title of his remarks -- *Dwelling on Death Isn't Neurotic; It's Profoundly Healthy* (*Liguorian*, February 2000). This may be considered especially true given the extent to which people are exposed to death, through the experience of relatives, through media representations, and through reports on the extraordinary range of deaths from natural disasters, massacres, wars, disease and starvation.. The latter are more likely to increase, rather than decrease, given the predicted shortages of the near future. If only in that respect, it is appropriate to reflect on the experience of death as stripped of all dignity in the eyes of others by acts beyond one's own conscious control.

In arguing for remembrance of death, the Orthodox Christian Information Centre (*We Should Remember Death*) argues:

The Christian soul that lives with a profound hope of life beyond the grave and the sweet anticipation of the most desirable Paradise, attempts to maintain a vivid memory of death. *The Wisdom of Sirach* says: *In all you do, remember the end of your life, and then you will never sin....* The Christian knows that he will live after death and, therefore, should constantly be aware of his present mortality, keeping before him his exodus from the present world, the **Second Coming**, the future judgment and his entry into endless eternity. For this reason **St. Gregory the Theologian** often repeats the saying of Plato which suggests that the present life ought to be *a meditation upon death*. He advised his friend Philagrius to live *instead of the present the future and to make this life a meditation and practice of death*. To the priest Photios he wrote: *Our cares and our attention are concentrated on one thing only our departure from this world. And for this departure we prepare ourselves and gather our baggage as prudent travelers would do*. Also, **St. Athanasios** advises in his treatise *On Virginity: Recall your exodus every hour; keep death before your eyes on a daily basis. Remember before whom you must appear*. St. John of Sinai advises: *Let the memory of death sleep and awake with you*.



Challenging alternative implications of metaphors for dying

Of interest in the following is the distinction between the emphasis on a singular quality, cause, modality or **static** framework, and that implying a **dynamic** modality -- even a sense of developmental emergence. This applies especially to metaphors to die "by". Especially intriguing is the sense in which "by" is best understood metaphorically through a form of **peristalsis** -- suggesting a cognitive equivalent. Peristalsis is a radially symmetrical contraction and relaxation of muscles which propagates in a wave down a muscular tube, in an anterograde fashion, as in the gastrointestinal tract, in the process of defecation, and in the uterine contractions at birth.

BY: Metaphors to die by: Use of "by" offers two senses:

- exploitation of the metaphors to frame the reason why the death (of others) should be ensured, perhaps as a rationalization typical of the grooming of those on suicide missions or as martyrs to a cause. This is the essence of Lakoff's warning: *Metaphors can kill*. In this sense one can be killed by a metaphor, or ensure the death of others. It might be termed "cognitively toxic".
- use of the metaphor as a framework or pattern of guidelines by which the transformation associated with death can be enabled.

As with many tools, distinguishing the two senses in practice requires discernment.

FOR: Metaphors to die for: Use of "for" suggests the sense in which the metaphor is taken for the reality for which it is appropriate to die. Rather than some cause or belief being comprehended with the aid of a metaphor, the metaphor is interpreted as defining that cause.

The point is made by Joel P. Bowman (*Metaphors We Die By (and For)*, *SCS Matters*, 21 May 2011) arguing that one of the examples often cited is "argument is war." Ideas are attacked, defended, and shot down. We may even "destroy" someone's theory or "kill" his or her idea. Opinions stated as facts become the metaphors people die for. He presents the following metaphors as basically "a call to arms," pitting one side against the other in a war of ideas:

-- budget jujitsu / divine truth-bombs / sparked a firestorm
-- being held hostage / a ransom note
-- dangerous judicial activist / aggressive left-wing ideologue
-- Nazis / Tea Party storm troopers / walked in lockstep
-- enhanced interrogation / torture
-- pro life / pro choice

Bowman cautions:

.... The idea is to become increasingly aware of the metaphors *lurking* in language so that you can be aware of the implied meanings and the degree to which you want to be influenced by them. Remember that the influence can be either "for" or "against." When you hear that certain politicians are "marching in lock-step," you may be inclined to agree or disagree before considering the meaning -- and the motivation -- behind the metaphor. As you become more aware of the metaphors that influence subjective experience, I suspect that you will start choosing your own metaphors with greater care: Metaphors we can live by rather than those we might just die for.

FROM: Metaphors to die from: Here "from" offers another variant of use of the metaphor functioning as a cause of death, rather than enabling the experiential process of dying.

WITH: Metaphor to die with: Use of "with" implies "with the aid of", namely during the process of dying. However it also recalls the biblical adage: *Live by the sword, Die by the sword*. (Matthew, verse 26:52). It could also be understood as indicative of the test question: *By what means would you least like to die* -- with the implication that that is how life will be experienced.

IN: Metaphors to die in: Use of "in" suggests the metaphor is functioning as a vehicle through which dying is experienced. This recalls the framing of reality through models and simulations -- some of which could be understood as enabling various forms of crisis due to their inadequacy (*Uncritical Strategic Dependence on Little-known Metrics: the Gaussian Copula, the Kaya Identity, and what else?* 2009)

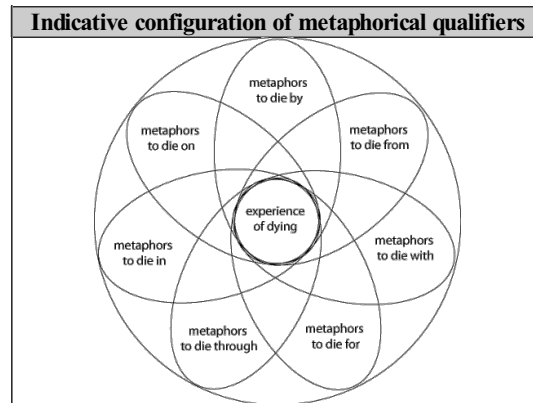
THROUGH: Metaphors to die through: In one use this can be understood as corresponding to the "in" case. In another there is more of the sense of enabling "break through", as implied by a catalytic, midwifery, or obstetric function. In terms of a more complex understanding, "through" recalls the magical function of a mirror through which it is possible to step -- "through the looking glass" offered by the vision metaphor and its reinforcement of observation. The stress here is then on its paradoxical cognitive implications, as variously argued (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008; *World Introversion through Paracycling: global potential for living sustainably "outside-inside"*, 2013; *Intercourse with Globality through Enacting a Klein bottle: cognitive implication in a polysensorial "lens"*, 2009).

ON: Metaphor to die on: Use of "on" offers several senses. As with use of a skateboard or a surfboard, knowledge is variously "surfed" over without being sucked "in". It could be understood as an indication of the nature of detachment in its meditative sense. However "on" may also imply a form of dependency, as with a cognitive prosthetic or Zimmer frame. Finally "on" may imply a metaphor so powerful that it constitutes a mind altering drug from which detachment is not possible. As a drug, it offers the further interpretation of being potentially an overdose. In its ultimate form, the metaphor is an overdose.

Meta-for to die for? The construction of "metaphor" encourages speculative word play with respect to "meta-for". This follows from provocative framing questions (*What is meta for? Poetry-making and Policy-making*, 1993; Raymond Fox, *What is meta for? Clinical*

Social Work Journal, 17, 1989, 3, pp 233-244; John Carbonaro, *What is Meta for? Animal Earth Right*, 19 July 2013). What is the meta(physical) insight, or meta-model, to be "re-cognized" as for? A higher form of order? A dynamic? An emergent process? A means of sustainably "holding" complexity as competence declines in the dying process? A mnemonic container for that which becomes increasingly difficult to retain -- when confronted by a form of "cognitive incontinence"?

There is some value in honouring the traditional recognition of multiple "heavens" as meta-perspectives for the living-dying process.



This suggests a relation to the "metaverse, as discussed below

Inner game of dying and its global significance

This exploration arose from dissatisfaction with the extent to which death is described from an "external" perspective, by others, in anticipation of it, or through the focus on surviving it in some way -- whether in one's own case or in that of others. Such concerns are naturally framed through a wide spectrum of philosophies and religions. Questions may also be engendered by "near death experiences", whether of an extraordinary nature or simply a "near escape" -- whether for the individual or on a global scale, as argued by Kenneth Ring (*Heading Toward Omega: in search of the meaning of the near-death experience*, 2012).

Seemingly far less represented, for the person most directly involved, is the psychological or existential experience of dying, and its inevitability, unframed by any of a variety of possible worldviews offered as a means of giving meaning to the process. Whatever such worldviews may propose, the process as experienced brings into focus the sense of identity of the individual, the sense of life context, and an understanding of time -- possibly in ways which challenge conventional understandings and explanations, and assumptions about the capacity to formulate them adequately. The experience may of course be radically reframed and intensified by any associated pain.

With the probability that global civilization will be severely affected by crises foreseen (as noted above), many will die abnormal deaths in the decades to come. This suggests that consideration of the dying process deserves greater attention -- irrespective of how people will meet their death.

Death is readily perceived as an externality, as the ultimate form of "otherness" with which some form of engagement is regrettably necessary, as separately discussed (*Engaging with illness and death as otherness*, 2013). It is appropriate to note that The Economist Intelligence Unit has recently produced a 40-country study on *The Quality of Death: ranking end-of-life care across the world* (2013), commissioned by the [Lien Foundation](#) -- a Singapore-based group noted for its radical philanthropy.

The emphasis in such initiatives is on care for the dying. There is however the characteristic difficulty in modern society of considering the subjective experience of the dying -- other than in terms of how it may be improved, most notably with medication. The ills and pains experienced with advancing age highlight the extent to which the body is itself experienced -- increasingly -- as a form of otherness, even an externality (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2008). This calls for reflection in terms of the arguments with respect to the embodiment of mind. Missing from the argument presented in this way is any experiential sense of "approaching" death as the encounter with otherness in its most ultimate form.

In other contexts there is however widespread recognition that preoccupation with external phenomena has psychological implications:

- gardeners everywhere have acknowledged the psychological impact of gardens and gardening, and may well engage in those processes for that reason [[more](#) | [more](#)]
- the recognition within certain spiritual disciplines of the role of gardening and sacred ecosystems (cf Zen temple gardens, [sacred groves and other sanctified ecosystems](#))
- the psychological impact of technology is discussed in a variety of contexts (Erik Davis, *Techgnosis: Magic, Memory, and the Angels of Information*, 1998; Robert Romanyshyn, *Technology as Symptom and Dream*, 1989), notably in relation to the development of the web (Sherry Turkle, *Life on the Screen: Identity in the Age of the Internet*, 1995), and is even a focus of concern (computer addiction, videogame addiction, etc)

Many do not have access to gardens and the experience of gardening -- but they may well project their acknowledgement of certain psychological processes into competitive sport. It is however significant that **for a variety of sports, emphasis has been placed on the "inner game"**, whether as a key to conventional success in the outer game or as an experience of significance in its own right (cf the Inner Game of: *Tennis, Golf, Frisbee, Chess, Poker, Billiards, Fencing, Go, Sumo, Skiing*). The insight has been adapted to competitive economic activity (cf the Inner Game of: *Business, Investing, Wealth, Work, Management, Trading, Entrepreneurship*,

Selling, Prospecting). The same is true of gardening (cf Diane Dreher, *Inner Gardening: A Seasonal Path to Inner Peace*, 2002) and notions of an "inner garden", or a "secret garden".

There is therefore a case for exploring the possibility of an "inner game of dying". This complements the many arguments that "life is a game" or can be fruitfully experienced "as a game". It notably figured as the title of an early popular parlor game, and of its modern variants: *The Game of Life*. As a metaphor, this clearly exploits familiarity with game-playing and appreciation of that framing of complexity -- and the dynamics of the relation to otherness therein. In his introduction to the *New American Book of the Dead*, [John C. Lilly](#) notes:

The inner game of dying requires discipline and exact knowledge. In a culture which has a taboo against even knowing about death, that means overcoming many deeply ingrained social superstitions. Those who have spent time in the attempt to reach higher states of consciousness are the best candidates for the voyage into and through death. When ego disintegration occurs, they recognize the process and are familiar with its short and long term effects.

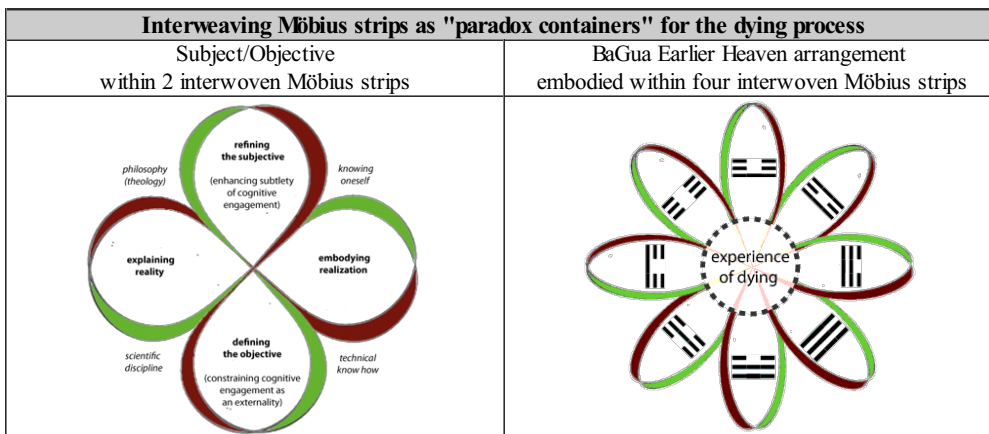
The question addressed below is the nature of this inner game of dying and how it contrasts with that of life. The argument here is that the qualities of the game can be "informed" by metaphor in order to "improve the game" -- potentially further enhanced by insights from mathematics such as those which resulted in the much-acclaimed *Game of Life* of [John Conway](#). The qualitative nature of the mix of metaphor and mathematics has been remarkably suggested by the classic of Nobel Laureate [Hermann Hesse](#) (*The Glass Bead Game*, 1943). This was undoubtedly inspired by the *Rithmomachia* (Ann E. Moyer, *The Philosophers' Game: Rithmomachia in Medieval and Renaissance Europe*, 2001; Todd R. Harris, *The Interplay of Opposites, the Language of Experience, and the Geometry of Ascent: a comparison of Hermann Hesse's "Das Glasperlenspiel" and Nicholas of Cusa's "De Ludo Globi"*, 2001).

Improvement of the game may well depend on how metaphor (possibly of a mathematical nature) is embodied and enacted. The process has implications for any sense of the invariance of identity through the dying process. As expressed by [Kenneth Boulding](#):

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

A similar argument may apply to the "existence" of collective entities, as separately discussed (*Cultivating Global Strategic Fantasies of Choice: learnings from Islamic Al-Qaida and the Republican Tea Party movement*, 2010).



The paradoxical relationship between subjectivity and objectivity in the course of the dying process can be usefully suggested by the implications of the Möbius strip (as in the left-hand image below). This addresses the challenge of transcending the binary framework of living vs. dying (*Transcending Simplistic Binary Contractual Relationships*, 2012). The dynamic engagement with different metaphors in the inner game can then be suggested by an animation of the BaGua pattern of the Chinese culture (as in the right-hand image below). The trigrams in the animation all have extensive metaphorical associations. As an animation, the right-hand image is suggestive of the dynamic of cognitive peristalsis (noted above) -- "through" which dying might be metaphorically enabled, as with any rebirth. The sense of peristaltic dynamic could be increased with many improvements to the animation.



The sense of a more complex game can be taken further in the following animations developed for a discussion of *Playing the Great Game with Intelligence* (2013) through the following considerations:

- [Recognizing patterns in the Greater Game with Otherness](#)
- [Interplay of black and white in the Greater Game](#)
- [Experimental integration of a Chinese framing of the dynamics of the Greater Game](#)
- [Identifying a pattern of transformational transactions within the Greater Game](#)
- [In quest of a meta-pattern of transactional games](#)

Encoding of strategic opportunities in games	
(Reproduced from <i>Playing the Great Game with Intelligence</i> , 2013)	
Animation indicative of moves from central position	Animation indicative of moves from central position

using BaGua configuration in FuXi arrangement (rotation of whole image, <i>without relative movement</i>)	using BaGua configuration in FuXi arrangement (no rotation of whole image, but <i>with relative movements</i>)
	

Renaissance: Twice born, once dead -- Thrice born...?

Many religions, and especially Christianity, place great emphasis on rebirth, whether "in this life" -- through a process of "reincarnation" (as in Buddhism or Hinduism) -- or as refiguring "resurrection". In this life, it may be intimately related to a [conversion experience](#), or to any form of [baptism](#), considered symbolically to be a form of rebirth (and possibly a confirmation of a conversion process). For some Christians rebirth is recognized through the expression "born again" or "twice born". There is little consensus on use of these terms or their metaphorical interpretations, as separately noted (*Varieties of Rebirth: distinguishing ways of being born again*, 2004). This clustered such understandings as follows:

- [Cultural rebirth](#) (renaissance, aesthetic birth, mytho-poiesis)
- [Socio-religious rebirth](#) (birthright, destiny, reincarnation, social status, ceremony, ritual, group affiliation, games, sports)
- [Psycho-behavioural rebirth](#) (sin-to-virtue, changing patterns of consumption, conversion)
- [Developmental rebirth](#) (education, perspective, initiation, cultural creativity, individuation)
- [Therapeutic rebirth](#) (release from trauma, mentors, self-help, discipleship)
- [Cognitive perspective](#) (metacognition, critical thinking, philosophy, aesthetic sensibility, orders of thinking, systematics, orders of abstraction, disciplines of action)
- [Experiential rebirth](#) (operacy, flow, embodiment of mind, speaking with God, born-again, possession, psychedelic experience, embodiment in song, spiritual rebirth)

The influential role of the "twice born", or those who aspire to that condition, was separately discussed (*Strategic Opportunities of the Twice Born: reflections on systemic camouflage of mass deception*, 2004).

There is a certain irony to the focus on such "rebirth" in that it necessarily implies a somewhat neglected preceding "dying" and "death". This may be framed in terms of "dying to the world" or "dying to oneself" -- otherwise understood as a fundamental process of detachment from any conventional world view (D. W. Ekstrand, *A summary of the doctrine of "Dying to Self"*, *The Transformed Soul*). In Christianity, the first main principle of [surrender](#) is "Dying to Self", or the "emptying of self" to allow Christ to live through the believer. There is however also little consensus on the nature of this process, although it is fundamental to descriptions of the mystical experience.

Some Christian commentators have specifically framed the challenge of the "twice dead":

- In contrast to born-again believers, who are occasionally called "twice-born" men and women, there are some people who already are "twice dead." That is, not only are they "dead in trespasses and sins" (Ephesians 2:1), like all other people inheriting Adam's sin-nature, but they are already participating in the "second death" (Revelation 20:6). These are, from the context in Jude, those apostate teachers who turn "the grace of our God into lasciviousness, . . . denying the only Lord God, and our Lord Jesus Christ" (Jude 4). They have fully understood the true gospel, and willfully repudiated it, so that, for them, "there remaineth no more sacrifice for sins" (Hebrews 10:26, see note; also see notes on Hebrews 6:4-6). ([Institute for Creation Research](#))
- You've heard of the twice-born experience, our natural birth and our spiritual birth, but Christians are also among the twice-dead. We die to our old sinful nature, beginning in baptism, and we die physically. Our spiritual birth would not be possible without our death to selfishness and sin. (p. 141) Russell F. Anderson (Lectionary Preaching Workbook: Series V, Cycle C, CSS Publishing, 2007)

These various metaphorical frameworks are applied to cultures and civilizations -- as in use of Renaissance. There is much [anticipatory discussion](#) of a New Renaissance (David Lorimer and Oliver Robinson, *A New Renaissance: transforming science, spirit and society*, 2010). Use of the birth metaphor suggests the need for careful consideration of its implications with respect to such anticipation. Understandings of the birth of a child can be compared with socio-cultural renaissance to that end (*Challenges of Renaissance: suggestive pattern of concerns in the light of the birth metaphor*, 2003).

Of particular relevance to this argument is how the previous culture or civilization died -- and how the dying process was experienced -- prior to any question of "renaissance". Implying necessarily a "second death" (or more), the question applies both to the classical Renaissance and to the sense that the current civilization is dying or dead. Also challenging is the possibility that many may fail to "recognize" the New Renaissance, as separately explored (*Missing the New Renaissance? No Room at the Inn?* 2010). The latter asked the

following questions in provocative vein:

- [What is the New Renaissance?](#)
- [When will the New Renaissance happen?](#)
- [Where will the New Renaissance happen?](#)
- [Which New Renaissance?](#)
- [How will the New Renaissance be enabled?](#)
- [Who emerges from a New Renaissance?](#)
- [Why a New Renaissance?](#)

It concluded with a discussion of *Surviving cycles: Renaissance following Remorse?* and the possible requirement for a *New Language for a New Renaissance?*. As with the traditional preoccupation of some Eastern religions, the issue is how to understand the cycle of death and rebirth -- and potentially how to escape it.

The argument here is that metaphor may offer the connectivity to enable rebirth -- and is therefore worth exploring as a means of enabling collective "sustainability" and individual "immortality". Curiously rebirth is itself a metaphor -- requiring "reconception", namely the absence of "contraceptives". It might be expected that those most against physical contraceptives may well have dysfunctional attitudes to "cognitive contraception".

Especially interesting are the insights of cybernetics into different orders of control of any system understood generically -- whether an individual or a global civilization. The manner in which conventional objectivity is progressively challenged by first, second, third and higher orders of cybernetics merits consideration in relation to self-reference and reflexivity, as separately argued (*Consciously Self-reflexive Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations*, 2007).

More unconventionally these "stages" of increasing subtlety could be understood in terms of "initiations" as forms of rebirth in some spiritual traditions. Each stage then implies a form of "death" in relation to the previous one -- involving a dying process. Of particular interest is the comparison with the traditional [ten ox-herding images](#) of Zen Buddhism. These lend themselves to interpretation with respect to stages of insight into the problems of humanity. In a *Commentary on the Integration of perceived Problems* in the Human Development section of the *Encyclopedia of World Problems and Human Potential*, an attempt was made to suggest how that classical sequence might be interpreted for clues to an unfolding relationship between humanity and its shadow (in the shape of the complex of world problems), as separately discussed (*Progressive integration of the shadow of non-self-reflexivity*, 2007).

It was noted above that death is being given a new kind of attention by both science and the emperors of cyberspace, with the *New Scientist* arguing that perhaps it is time for humanity to reinvent death (*Memento mori: it's time we reinvented death*), *New Scientist*, 20 October, 2012). A cover of *Time* magazine features the theme *Can Google Solve Death?* -- introducing [Calico](#), a Google-owned initiative to address issues of health and ageing (Harry McCracken and Lev Grossman, *Google vs. Death*, *Time*, 30 September 2013).

The new Director of Engineering at Google, [Ray Kurzweil](#), has recently asserted that humans will soon be able to upload their entire minds and become digitally immortal (John Thomas Didymus, *Google's Ray Kurzweil: 'Mind upload' digital immortality by 2045*, *Digital Journal*, 20 June 2013). Kurzweil is unusual in combining an institutional focus on both [immortality](#) and [singularity](#) (Ray Kurzweil, *The Singularity Is Near: when humans transcend biology*, 2005). Immortality is given a degree of credibility by science as a major driver of civilization (Michael Shermer, *Climbing Mount Immortality: death, cognition and the making of civilization*, *Scientific American*, 6 April 2012)

In its issue on death, the *New Scientist* featured a summary of the work of Stephen Cave (*Immortality: the quest to live forever and how it drives civilization*, 2012). Presented by the *Utne Reader* as "how immortality became a national obsession", [Lewis Lapham](#) (*Memento Mori*, 24 September 2013) argues:

The substituting of the promise of technology for the consolations of philosophy had been foreseen by John Stuart Mill... His premonition is now the just-over-the-horizon prospect of life everlasting bankrolled by [Dmitry Itskov](#), a Russian multimillionaire, vouched for by the Dalai Lama and a synod of Silicon Valley visionaries.... As presented to the [Global Future 2045](#) conference... Itskov's [Avatar Project](#) proposes to reproduce the functions of human life and mind on "nonbiological substrates," do away with the "limited mortal protein-based carrier" and replace it with cybernetic bodies and holograms, a "neohumanity" that will "change the bodily nature of a human being, and make them immortal, free, playful, independent of limitations of space and time." In plain English, lifelike human heads to which digital copies of the contents of a human brain can be downloaded from the cloud.

As "emperors" of cyberspace, their initiatives are reminiscent of the traditional preoccupation of Chinese emperors with ensuring their own [immortality](#). One favoured approach was of course the construction of monuments of appropriately framed significance, as separately discussed (*Enstoning in Memorials and Monuments*, 2012). Of particular interest, and of relevance to this argument, was the exploration by those emperors of the "inner alchemy" of Taoism to that end. This was experientially related to an understanding of the "circulation of light" as essential to sustaining health.

These associations merit reflection in the light of consideration of the relation between death and alchemy by [Steven M. Rosen](#) (*Dreams, Death, Rebirth: a multimedia topological odyssey into alchemy's hidden dimensions*, 2013), in the light of his earlier work (*Wholeness as the Body of Paradox*, *Journal of Mind and Behavior*, 1997; *The Concept of the Infinite and the Crisis in Modern Physics, Speculations in Science and Technology*, 1983).

It is therefore somewhat curious that Google should have selected "Calico" as the name for its initiative, given its close association with the [burial shroud](#). The more appropriate traditional name would have been "Elixir" -- unless "shroud" is then to be understood as a "digitally woven" cocoon of relationships of higher dimensionality, as separately discussed (*Interweaving Thematic Threads and Learning*

Pathways: noonautics, magic carpets and wizzdomes, 2010). Now revealed to be a friendly, global front-end for the US National Security Agency, might Google search facilities enable a transformation of its obsession, as separately discussed (*From ECHELON to NOLEHCE: enabling a strategic conversion to a faith-based global brain*, 2007).

To what extent will some form of "cognitive fusion" be discovered to be vital to the kinds of life prolongation and immortality sought by such initiatives? Is this in effect a significant mirroring at the individual level of the energy sustainability associated with the quest to manage the "power of the sun" through nuclear fusion in the [International Thermonuclear Experiment Project \(ITER\)](#), as argued separately (*Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing (ITER-8)*, 2006)? Curiously a fundamental design issue for ITER is management of the snake-like instabilities of the circulating nuclear plasma recalling the preoccupation of Douglas Hofstadter (*I Am a Strange Loop*, 2007).

Mathematical cosmology and death

Questionable relationship skills: Mathematics is acclaimed as being the discipline most exceptionally skilled in the study of formal relationships -- often of the greatest subtlety, complexity and multidimensionality. It is appropriate to note the various eminent mathematicians who were inspired by religion, deity and the nature of "God's work" in elaborating a universe in which so many elegant formal relationships have been expressed. The point has been well made by Sarah Voss (*What Number Is God?: metaphors, metaphysics, metamathematics, and the nature of things*, 1995).

It is also the case that mathematics could be said to be most complicitly fundamental to the design of ever more sophisticated means of causing death, notably with the aid of weapons of mass destruction (Steve Joshua Heims, *John Von Neumann and Norbert Wiener: from mathematics to the technologies of life and death*, 1982). In that sense mathematics offers the greatest sophistication in destroying connectivity -- enabling death -- and therefore, potentially, the destruction of global civilization. Consistent with the argument of Lakoff that "metaphors can kill", for mathematicians, as with the dubious slogan of the US National Rifle Association: *Maths does not kill people, people do*.

Experiential connectivity: Most curiously mathematics and mathematicians have seemingly no interest in the experiential nature of the connectivity and relationships through which life is engendered. Existing studies focus primarily on externalities and not on their subjective implications (Stephen J. Ceci and Wendy M. Williams, *The Mathematics of Sex*, 2009; Clio Cresswell, *Mathematics and Sex*, 2004). Interest in the cognitive and topological implications of "intercourse", whereby mathematicians are engendered, would appear to be prudishly restricted to those of the tantalizing title of Roy Wagner (*Mathematical Marriages: intercourse between mathematics and semiotic choice*, *Social Studies of Science*, 39, 2009, 2, pp. 289-308) who argues:

The production of mathematics is, to a large extent, a semiotic activity. Much of what a mathematician does is to manipulate symbols and words. Nevertheless, mathematics is the one domain of knowledge that is most exposed to a myth of pure and ideal transcendence beyond the symbols in which it is engraved. The purpose of this essay is to analyse how language may shape mathematical considerations.

The remarkable capacity of mathematicians in quantitative operations seemingly has no qualitative correspondence, as separately explored (*Reframing the Dynamics of Engaging with Otherness*, 2011). Particular recognition has been given to the experience of doing maths in a classical study (Philip J. Davis and Reuben Hersh, *The Mathematical Experience*, 1981). The self-referential question is whether understanding mathematical experience is itself informed by mathematics.

Mathematicians do personally engage in the psycho-social processes of multiplication, addition, and division -- even if some of them rate maths as "better than sex" (*Risk-enhancing Cognitive Implications of the Basic Mathematical Operations: ADD, MULTIPLY, DIVIDE and SUBTRACT*, 2013). However, even the most eminent die -- an ultimate form of subtraction.

Mathematics of death: Cultures, such as that of mathematicians, are typically much challenged to imagine the nature of their own death -- consistent with the arguments of Karen A. Cerulo (*Never Saw It Coming: cultural challenges to envisioning the worst*, 2006). Reuben Hersh has however published *Death and Mathematics Poems* (*The Mathematical Intelligencer*, 35, 2013, 1). The interest of mathematicians in death would otherwise seem to be limited to the importance of [mortality statistics](#) in actuarial and other studies (Robert Krulwich, *Nature has a formula that tells us when it's time to die*, 22 January 2013). There are some exceptional perspectives (Mark Kruse, *Death and the Higgs Boson: talking mortality with a physicist*, *DigitalDying*, 1 December 2013; Aaron Freeman, *Eulogy from a Physicist*, *Daily Kos*, 28 April 2013). The possibility has been illustrated in an exceptional video record (*Her Life in Movement, Spotlight on Bones*, 10 December 2013; *Paul Levinson's Infinite Regress*) as presented by [Richard Schiff](#):

Bones is really good at making logic into a beautiful belief system. Numbers and DNA strands and bone markers don't take away any of the mystery of life. They only tell our stories from new angles. Every piece of a life broken down and viewed under a microscope is just more proof that we're unique. The professor tells his daughter's story the way he knows how: with numbers on a chalkboard, charting her first steps and highest arcs. He didn't think he knew how to relate to his daughter, but they saw the world the same way. They saw it in movement.

Ironically the self-referential possibility of mathematics itself dying has been explored as a primary concern by several mathematicians -- but not with the aid of mathematics (Keith Devlin, *The Death of Mathematics*, *Edge*, 2013; Gary Rubinstein, *The Death of Math*, 19 October 2013). There is also concern by mathematicians with the "death" of one of its fundamental processes (John Horgan, *The Death of Proof*, *Scientific American*, October 1993). A possible exception to the trend focuses on the birth and death of mathematical concepts (Charles S. Fisher, *The Death of a Mathematical Theory: a study in the sociology of knowledge*, *Archive for History of Exact Sciences*,

3, 1966, 2, pp. 137-159; Gavin Hitchcock, 'Good Death': a common pattern in the evolution of mathematics, science and biological organisms, *Science and Christian Belief*, 23, 2011, 2, pp. 115-132).

Death of mathematicians: More personally, how to manage diminishing memory and cognitive functions fruitfully? By, or through, what metaphors can one most meaningfully die as a mathematician -- or as a mathematically informed civilization? Do mathematicians and cosmologists "die well"? If not, why not?

Wikipedia offers one checklist of 17 *mathematicians who committed suicide*, with another on *DuckDuckGo*. See also: the following and associated comments: David Malone, *Dangerous Knowledge*, BBC Documentary; John Baez, *Dangerous Knowledge*, *n-Category Cafe*, 1 December 2009; *Why many famous Western mathematicians end up committing suicide, destitute and mad?* *Yahoo Answers*.

How might a mathematician frame the experience ("depression") leading to that decision? *Wikipedia* records elements of the suicide note of one of them, [Yutaka Taniyama](#):

As to the cause of my suicide, I don't quite understand it myself, but it is not the result of a particular incident, nor of a specific matter. Merely may I say, I am in the frame of mind that I lost confidence in my future.

[Paul Ehrenfest](#), a physicist who helped in the development of general relativity and was a close friend of Albert Einstein, committed suicide in 1933. Ironically suicide figures in an unusual thought experiment (Josh Clark, *How Quantum Suicide Works*, *How Stuff Works*).

Mathematical metaphors of death: It has been argued by Ying Chen and Eleanor C. Sayre, that death is one of two pervasive metaphors used in mathematics-in-physics contexts, which they analyze using [conceptual blending](#) and the resources framework (*Pervasive Metaphors in Mathematics-in-Physics: fictive motion and animation of Inanimate*, 2013). For them, fictive motion occurs when a function "gets small as you get far away"; animation of the inanimate occurs when properties of living creatures -- such as death or growth -- are ascribed to mathematical functions.

Making extensive use of mathematics, as noted by [Donald M. McCloskey](#) (*Metaphors Economists Live By*, *Social Research*, 62, 1995, 2, pp. 215-237), economists since the 1950s have been elaborating an allegory of the "life cycle," which puts their metaphor of the maximizing individual into a story of birth and death -- arguably also of relevance to analysis of the decline of a global civilization. For [Xia Jue](#) (using a framework similar to that of Gareth Morgan), everyone is bound to experience the following phases in life: birth, growth, maturation and death -- phases of life often mapped onto the economic domains and used to talk about the different stages of economic organization and business (*Economic Metaphors in English Newspapers*, 2009).

Of particular interest, as potentially relevant metaphors, is the mathematical framing of: end (of a line), summation (of a series), collapse (of a probability function), breakdown (of a chain of argument), convergence (of an infinite series, possibly on a singularity), limit, and the like, including conclusion. Especially interesting are commonalities between [closure in mathematics](#) (and [closure in topology](#)), [closure in computer programming](#), the [psychological need for cognitive closure](#), and the philosophy of closure according to [Hilary Lawson](#) (*Closure: a story of everything*, 2002). Intriguingly, it is mathematics that is itself best equipped to frame such termination generically ([Michael Oehrtman](#), *Collapsing Dimensions, Physical Limitation, and Other Student Metaphors for Limit Concepts*, *Journal for Research in Mathematics Education*, 40, 2009, 4, pp. 396-426).

The understanding of "limits" is especially relevant to the death of civilization, as highlighted by the report on *The Limits to Growth* (1972), especially with respect to psycho-social limits (*Societal Learning and the Erosion of Collective Memory: a critique of the Club of Rome Report: No Limits to Learning*, 1980; *Limits to Human Potential*, 1976). This is currently of concern with respect to "planetary boundaries" (*Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity*, 2009; *Pointlessness, Unboundedness and Boundaries*, 2012). How might mathematics best engage with what is "beyond limits" -- a theme framed for science in general (*Beyond the Limits of Science*, *Scientific American*, September 2012, special issue).

Also of relevance is the sense of "completion", in relation to "incompletion", as it might apply to living in the light of the fundamental challenge to mathematicians of [Gödel's incompleteness theorems](#), or arguments that are "not even wrong" and believed to fail at some fundamental level, as in [string theory](#) ([Peter Woit](#), *Not Even Wrong: the failure of string theory and the search for unity in physical law*, 2007). Other than ignoring the question as irrelevant, how does mathematics engage with "defining" death, or with the "not knowing" of what might otherwise be considered "unknowable"? This is of course an issue for non-mathematicians (*Living with Incomprehension and Uncertainty*, 2012; *Engaging with the Inexplicable, the Incomprehensible and the Unexpected*, 2010).

Cognitive origins of mathematics: This dissociative focus on externalities is somewhat extraordinary in the light of the arguments from the perspective of cognitive psychology by [George Lakoff](#) and [Rafael Nuñez](#) (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2001). The issues have been explored further by [Elizabeth Mowat](#) and [Brent Davis](#) (*Interpreting Embodied Mathematics using Network Theory: implications for mathematics education*, *Complicity: an international journal of complexity and education*, 7, 2010, 1, pp. 1-31), with a fruitful commentary by [Paul Ernest](#) (*Mathematics and Metaphor: a response to Elizabeth Mowat and Brent Davis*, *Complicity*, 7, 2010, 1, pp. 98-104). It follows that physics also makes extensive use of metaphor as noted by [David Brookes](#) (*The Role of Metaphor in Scientific Thought and Physics Education*).

Could the preoccupation with mathematics education be fruitfully reframed to encompass dying -- as a means of focusing the interest of students?

The intimate relationship between mathematics and metaphor has been argued by [Yuri I. Manin](#) (*Mathematics as Metaphor*, American Mathematical Society, 2007). The matter is however further complicated by the nature of confidence in mathematics -- and the role of belief, in the light of the importance of mathematics to theology, as argued separately (*Mathematical Theology -- Future Science of*

Confidence in Belief : self-reflexive global reframing to enable faith-based governance, 2011). Confidence would seem to be as fundamental in importance to civilization as gravity is to the universe.

Observer entanglement with the universe: It is from this sense that the "universe" as humans know it intertwines in a mysterious way what can be observed and the nature of the observer by which is engendered the mathematics informing any understanding. There would appear to be a kind of "mirroring" as yet to be comprehended but which argues for use of astrophysics as providing a metaphor of the knowledge universe of global civilization -- of the *noosphere* (*Towards an Astrophysics of the Knowledge Universe: from astronautics to noonautics?* 2006; *Eliciting a Universe of Meaning -- within a global information society of fragmenting knowledge and relationships*, 2013). It is in this sense that the creativity of cosmologists merits careful consideration in relation to death and dying.

Mathematical cosmology: As remarked by Alan Rendall (*The Mathematical Universe, Einstein Online*, 4, 2010, 1022) :

Cosmology, the study of the universe as a whole, is not only a matter for astronomers and astrophysicists, but also for mathematicians. At the heart of cosmology, there's mathematics, and to comprehend the universe, it is not only necessary to observe and measure it, but also to understand its inner workings; it takes not only astronomical data, but also a good understanding of the equations that govern the evolution of the cosmos.

What could be understood from the form of those equations regarding the dying process?

Joe Malkevitch (*Mathematics and Cosmology*, American Mathematical Society, 2013) provides an overview of the surprisingly large number of ways that mathematics has supported attempts to understand the universe. Again, of what relevance is this to understanding the experiential universe of an individual, the nature of dying, and the possibility of rebirth?

Cosmology and death: In a discussion forum of the FXQi community (*Limits of mathematics in cosmology*), the theme is introduced by:

The ultimate limit of mathematics in cosmology is spelled out quite clearly by Gödel's theorem that even Stephen Hawking acknowledged in 2002. Alas, it appears that only a small minority of honest physicists and mathematicians appreciate the ramifications of Gödel's theorem, which sets forth that no non-trivial system of arithmetic propositions can have proof of consistency within itself. As Hawking finally recognized (*Gödel and the End of Physics*, 2002.), Gödel's theorem definitely applies to physics and the vain quest for an absolutely final TOE based on higher mathematics.

As with the "cosmology" of the person or a civilization -- their birth or death -- there are "a series of important unsolved problems" in the cosmology of the universe as noted by Spiros Cotsakis (*Current Trends in Mathematical Cosmology*, 2001). He focuses on singularities as a theme unifying many current, seemingly unrelated trends of this subject. How fruitful is it to frame the "death" of a civilization or a person as a "singularity" in mathematical terms?

In the absence of any creative understanding of "death" by mathematics or cosmology, it is curious to note an introductory section on general relativity theory, by J. N. Islam, entitled "killing vectors" (*An Introduction to Mathematical Cosmology*, 2002, pp. 18-20). However, rather than being associated with death, the term derives from the *killing vector field*, named after Wilhelm Killing. On the other hand astrophysics does envisage a *heat death of the universe* -- a suggested *ultimate fate of the universe* in which it has diminished to a state of no thermodynamic free energy and therefore can no longer sustain processes that consume energy (including computation and life).

Following earlier work (Hao Wei, et al., *Quasi-Rip: a new type of rip model without cosmic doomsday*, 10 October 2012), it is now hypothesized that a *Quasi-rip offers reincarnation hope for universe* (*New Scientist*, 20 October 2012), as described by Lisa Grossman:

There's a lone ray of hope in one of the most calamitous and violent views of our cosmos's future. Even after dark energy -- the mysterious energy speeding the universe's expansion -- has ripped up galaxies, planets and atoms, there can be revival. A new model for the future of the universe, known as the "quasi-rip" proposes that new structures can rise, phoenix-like, from the ashes, offering a form of cosmic reincarnation.

Mathematical cosmology -- improving the inner game of dying

Multiversal implications for psycho-social dying: Especially intriguing is the quality of thinking of cosmology and astrophysics through which the "universe" may emerge and collapse as a feature of a "multiverse". This "meta-universe" is the hypothetical set of infinite or finite possible universes (including the historical universe consistently experienced) that together comprise everything that exists and can exist: the entirety of space, time, matter, and energy as well as the physical laws and constants that describe them. How might such thinking be credibly applied to global civilization and to the universe which the individual constitutes? Why is such thinking deprecated in the psycho-social case -- notably by those with mathematical skills (as highlighted by the *Sokal Affair* and related hoaxes)?

Where is the thinking regarding "psycho-social dying" which complements the extraordinary hypothesis described by Clara Moskowitz (*In a "Rainbow" Universe Time May Have No Beginning*, *Scientific American*, 9 December 2013):

What if the universe had no beginning, and time stretched back infinitely without a big bang to start things off? That's one possible consequence of an idea called "rainbow gravity," so-named because it posits that gravity's effects on spacetime are felt differently by different wavelengths of light, aka different colors in the rainbow.

Using cosmology and astrophysics as metaphors, some possibilities can be explored to reframe the implications and experience of dying and death -- or to justify unconventional approaches to such experiences. These are highlighted in separate discussions (*Global Brane Comprehension Enabling a Higher Dimensional Big Tent? Strategic implication in encompassing nothing and coming to naught*, 2011; *Enactivating Multiversal Community: hearing a pattern of voices in the global wilderness*, 2012).

Brane death and stellar dying: Appropriate to this argument, the "death" of the "brane" (hypothesized in string theory) has long been a theme of cosmology (Konstantin G. Savvidy, *Brane Death via Born-Infeld String*, 1998; *A question for a cosmologist about brane death*, 16 March 2012). The **life cycle of stars** is of course extensively studied, with many references to the "death" of the Sun (Jason Palmer, *Hope dims that Earth will survive Sun's death*, *New Scientist*, 22 February 2008; Karl Tate, *Death of a Sunlike Star: how it will destroy Earth*, *Infographic*, 10 October 2013). Stellar evolution through to such a death is well-mapped by the **Hertzsprung-Russell diagram** -- potentially offering insights into that of any global civilization or individual (*Psychosocial Implications of Stellar Evolution? Reframing life's cycles through the Hertzsprung-Russell diagram*, 2013).

Significance of nothing in dying: The probability of an experience of "nothingness" has long been one associated with death -- especially in a secular society. The anticipation of "nothing" has become significant to a global civilization in which individual expectations have been severely undermined and politicians have little to offer (*Emerging Significance of Nothing*, 2012). Its significance is complicated by individual aspiration to "be someone" and concern at the prospect of being "nobody" and going "nowhere", as variously discussed (*Going Nowhere through Not-knowing Where to Go: sustaining the process of autopoiesis through point-making*, 2013; *Way Round Cognitive Ground Zero and Pointlessness? Embodying the geometry of fundamental cognitive dynamics*, 2012).

Cosmology has recently attached every greater significance to nothing (Lawrence M. Krauss, *A Universe from Nothing: why there is something rather than nothing*, 2012; John D. Barrow, *The Book of Nothing: vacuums, voids, and the latest ideas about the origins of the universe*, 2002; Brian Rotman, *Signifying Nothing: the semiotics of zero*, 1987). Robert Kaplan discusses at some length the use of zero as a symbol of the god of death by the Maya in their calendars (*The Nothing That Is: a natural history of zero*, 1999). It is of course unfortunately the case that mathematics, as noted above, is most complicit in enabling annihilation -- after which "nothing remains". Any such sense of "remainder" suggests the possibility of further exploration (*Reintegration of a Remaindered World: cognitive recycling of objects of systemic neglect*, 2011).

Especially intriguing are the symbolic, mathematical and logical significances of nothing (and zero). These have been the preoccupation of a range of studies -- most recently that of the *New Scientist* (Jeremy Webb, *Nothing: from absolute zero to cosmic oblivion -- amazing insights into nothingness*, 2013). Ronald Green provides a wide review of the question, with multiple references to its relevance to death from different perspectives (*Nothing Matters: a book about nothing*, 2011)

The nature of that "nothingness" (represented by zero) becomes more mysterious when recognized as a "hole", as remarkably discussed by Roberto Casati and Achille C. Varzi (*Holes and Other Superficialities*, 1994) -- with respect to the borderlines of metaphysics, everyday geometry, and the theory of perception (as they summarize in the **entry on holes** in the *Stanford Encyclopedia of Philosophy*). With zero as the marker for both the initiation of a new cycle and its termination (as first required by **Babylonian and other calendars**), it raises the question as to the nature of a marker of "globality" and completion in forms of symmetry of higher dimensionality. Is "dying", or a succession of "deaths", then to be associated in some way with the encounter with ever higher orders of symmetry, culminating in the **Monster group** (*Potential Psychosocial Significance of Monstrous Moonshine: an exceptional form of symmetry as a Rosetta stone for cognitive frameworks*, 2007)?

Living and dying encoded in the Euler identity? It could possibly be said that potentially the most succinct representation of living and dying for a mathematician is the **Euler identity**. This equation has been named as the "most beautiful theorem in mathematics" and has tied in a nomination by mathematicians for the "greatest equation ever" (Robert P. Crease, *The greatest equations ever*, *PhysicsWeb*, October 2004). It may be presented as follows in two variants:

Euler Identity as indicative of the relationship between living and dying ?	
some variants	legend
$e^{i\pi} + 1 = 0$	<ul style="list-style-type: none"> e is Euler's number, the base of natural logarithms, π is the ratio of the circumference of a circle to its diameter i is an imaginary number defined by its property $i^2 = -1$. This is consistent with 3 variants: $i^0 = 1$, $i^1 = i$, $i^3 = -i$
$e^{i\pi} = -1$	

Appropriate to the mysterious nature of dying, is the much quoted comment with reference to the above by Benjamin Peirce: *It is absolutely paradoxical; we cannot understand it, and we don't know what it means, but we have proved it, and therefore we know it must be the truth.*

In the light of the arguments of Lakoff and Núñez (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2000), metaphor has been exploited to facilitate its comprehension (*Understanding Without Proof*, 2004; *Intuitive Understanding of Euler's Formula*, 2010; Chris Fields, *Metaphorical Motion in Mathematical Reasoning: further evidence for pre-motor implementation of structure mapping in abstract domains*, 2013).

Euler usefully highlights the challenge of how a mathematician might "die well", given both the potential implication of the above insight and another of his major contributions, namely the **Euler characteristic of polyhedra** (David S. Richeson, *Euler's Gem: the polyhedron formula and the birth of topology*, 2008). The latter could be related to governance of globality (*Towards Polyhedral Global Governance: complexifying oversimplistic strategic metaphors*, 2008). Does the series of spherically symmetrical polyhedra, down to the simplest, offer a mnemonic succession of cognitive "holding patterns" providing coherence -- as memory and other functions diminish?

As a case study, more intriguing is how he might have associated such insights with his profound religious convictions, given the

potential of mathematical theology (*Mathematical Theology -- Future Science of Confidence in Belief: self-reflexive global reframing to enable faith-based governance*, 2011). This could suggest another way of exploring the dying of others known for their insight, as in the compilation of 108 accounts by Sushila Blackman (*Graceful Exits -- How Great Beings Die: death stories of Tibetan, Hindu and Zen Masters*, 1997).

Reproductive anticipation of rebirth? The significance of the Euler formula for experience of the dying process remains yet to be explored. Peter Collins (*Mathematical Dimensions and Psychological Development (1)*, *Spectrum of Mathematics*, 5 October 2011; *Mathematical Dimensions and Psychological Development (2)*, *Spectrum of Mathematics*, 12 October 2011) argues that, properly understood, every number expression represents a dynamic interaction as between a base quantity and a dimensional number (that is relatively of a qualitative nature):

Therefore in a more accurate experientially refined approach to mathematics we would no longer understand numbers as static quantities but rather as dynamic interactive entities always entailing two complementary aspects that are - relatively - quantitative and qualitative with respect to each other. And the interaction of these aspects enables continual transformation in the nature of number to take place.

More might be recognized by presenting the Euler relationship unconventionally through use of the double-dagger (for example) as:

$$1 \ddagger e^{i\pi} \ddagger 0$$

thereby suggesting that 1 and 0 are mediated in some way by a form of dynamic complexity. The mediating factor then governs the complex cognitive relationship between quantitative and qualitative with which imagination is so intimately associated.

This challenges the symbolic sense in which male and female can be "equated" **statically** through an X-factor of questionable interpretation. The "inequality" of the sexes is then governed **dynamically** by a complex mediating factor of **requisite complexity** in cybernetic terms -- the imaginative driver engendering both reproductive processes and, more generally, engagement with problematic otherness (*Reframing the Dynamics of Engaging with Otherness*, 2011).

This helps to indicate how reproductive motivation is reframed in the face of death -- anticipating rebirth. It is also suggestive of the process through which there is an experience of loss of a simpler sense of identity through intercourse (as a **little death**) -- in favour of expression of a more fundamental sense of identity.

Mathematical comprehension through poetry: The argument of Gregory Bateson (cited above) for the role of poetry in enabling comprehension of complexity, suggests the value of further exploration of the relation between poetry and mathematics as complementary modes of knowing. The work of mathematicians Sarah Glaz and JoAnne Growney is noteworthy in this respect (*Strange Attractors: Poems of Love and Mathematics*, 2008), as admirably reviewed by Nobel Laureate J. M. Coetzee (*Notices of the AMS*, 56, 2009, 8, pp. 944-946).

With the **black holes** of the universe as **strange attractors** of cosmic dimensions, there is a case for reframing death (frequently named as a "black hole") in terms of its particular attraction -- and what passage "through it" might then imply, as with speculation by astrophysics regarding **wormholes** to other universes. As a precursor to the possible suicide of a mathematician, the experience of "**depression**" also merits attention, in the light of frequent use of the comparison (Brett Newcomb, *The Black Hole of Depression*, 1 February 2012).

References to **economic depression** and **meteorological depression** also merit consideration from a global perspective -- especially given frequent reference to "black hole" in a budgetary sense (Rodrigue Tremblay, *Financial Black Holes and Economic Stagnation*, *Global Research*, 19 October 2011). Most explicit is the comment of a professor of quantum mechanical engineering (Seth Lloyd, *The Black Hole of Finance*, *Edge*, 22 December 2013).

Individuals may effectively experience themselves as singularities in their own right, at the centre of a black hole in knowledge/communication space (Peter Collins, *Black Holes - Physical and Psychological; Imaginary Worlds: Virtual Development*). As a mathematical cosmologist in the process of dying, how does one adapt cognitively and personally to the phases of being sucked into such a black hole -- potentially aided to a degree by the speculative imaginings of thought experiments and science fiction? Given the spiralling motion into the black hole of astrophysics, how is it that dying has long been associated with expressions such as "winding down", "winding sheet", and a "downward spiral" -- even into a "netherworld" (*Designing Global Self-governance for the Future: patterns of dynamic integration of the netherworld*, 2010)? Can insights be communicated out from that black hole in any way -- given the nature of such an **event horizon**?

Is the human effort to come to terms with degrees of difference in the psycho-social realm cognitively mirrored in some way by the distinctions so assiduously sought in the cosmos -- perhaps to be understood in terms of resonance, complementarity or reciprocation? Are these differences projected onto external reality -- as it can be variously understood (*Psychosocial Implication of Without Within*, 2013)?

Are degrees (or scales) of "incommunicability" of world view effectively to be recognized metaphorically in the complex relationships between: moon, planet, solar system, galaxy, galaxy cluster, universe, and multiverse? Do their respective fates correspond to different scales of dying? Does the sense of people being "light years apart", or "living in different worlds", offer insight into the indifference to those suffering "elsewhere"? Does this intuitive experience of "distance" imply that humanity has already migrated into a paradoxical multiverse of alternative realities -- elegantly defined by cosmologists (*World Introversion through Paracycling: global potential for living sustainably "outside-inside"*, 2013)?

Living, lying, dying and denying: Especially intriguing in the psycho-social case is the role of "lying" in the process from "living" to "dying". This is only too evident in the denial of death and the assumption of the possibility of some form of immortality. This is echoed in the articulation of theories and empires about which there is pretentious assertion of their eternal existence -- their immortality -- assertive claims regarding the organization of knowledge space (the noosphere), seemingly precluding future emergence of new insight.

New Scientist offered an editorial regarding past research under the heading (*First, get it wrong*, 18 October 2013). This is indicative of the denial prevailing at any time with regard to the nature of any validity of alternative perspectives. Strangely this resembles the framing of personal identity and its degrees of invariance over time. Whilst physicists choose to make categorical assertions about society, deprecating the nonsensical nature of its belief systems, they have proven completely unable to offer any fruitful insight into its incommensurable frames of reference -- in which they are variously embedded, and from which they derive their funding. Ironically a physicist may continue to value copyright income from work subsequently proven to be wrong -- highlighting questions with regard to frames of reference and intellectual property (*Einstein's Implicit Theory of Relativity -- of Cognitive Property? Unexamined influence of patenting procedures*, 2007). Ironically possession within a conventional four-dimensional framework takes precedence over imaginative insight and innovation -- especially if it offers the prospect of a Nobel Prize and a place in history among the best and the brightest.

More embarrassing, under these circumstances, are the implications of a recent survey of quantum physicists showing that they themselves do not share a consensus on the nature of quantum electrodynamics and are perplexed by the meaning framed by the models they variously prefer (Sean Carroll, *The Most Embarrassing Graph in Modern Physics*, 17 January 2013; *Sean Carroll on the embarrassment of quantum mechanics*, 28 February 2013). The dynamics have implications for any coherent approach to global strategy, especially in the light of the denial of dying of any form with which identity is associated. For example, Ernest Becker argues that human civilization is ultimately an elaborate, symbolic defense mechanism against the knowledge of mortality, which in turn acts as the emotional and intellectual response to the basic human survival mechanism (*The Denial of Death*, 1973).

Gravity, arrogance and disparate realities: The question is how astrophysics holds incommensurability of perspectives -- whereby others are variously held to be "wrong" (from the perspective of another planet, constellation, or galaxy). Arguably "gravity" then lends itself to comparison with the "arrogance" in psycho-social systems with respect to perspectives upheld as valid. In contrast with any other orientation, this suggests a strange complex of associations between being "right", arrogance, and gravitational force.

The arrogance figures in criticism of the most brilliant, however eminent (most notably Isaac Newton). Also of significance is the (as yet unintegrated) role of creative imagination -- as deployed by cosmologists in articulating new understandings of the universe. This can be usefully compared with the "world-making" within any psycho-social context (*Identity, Possessive World-making and their Transformation Dynamics*, 2012).

The subtle patterns recognized by cosmologists on the largest scale thus merit a degree of consideration as elaborate metaphors for the birth and death of identity -- whether as a personal or a collective "world" or "universe" (*Being the Universe: a metaphoric frontier*, 1999). The desperate search for life "elsewhere" on other habitable worlds precludes its recognition "here" in the alternative realities which many variously inhabit through unconventional modalities -- if only for periods of their daily life (*Sensing Epiterrestrial Intelligence (SETI): Embedding of "extraterrestrials" in epistemic dynamics?* 2013). The subtleties of cosmology can then be understood as humanity's best effort to order insight into the requisite complexity of the relationship between the disparate realities between which people variously live and of which they have some intuitive understanding (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011).

Yet to be clarified is how such metaphors might best serve as cognitive vehicles in the process of dying -- and in any potential rebirth. Much is made of the suggestion by Gandhi: *Be the change that you wish to see in the world*. This may require insight into how to "Be the Collapse", namely how to "die well" -- whether individually or collectively (particularly as a civilization).

From digital death to cursive renaissance?: There is a curious sense (as suggested above) in which dying is defined in relation to living as being essentially binary, effectively a "digital script" in contrast with a "cursive script" through which contrasts and incommensurables are intertwined, often with the greatest elegance. This emphasis is consistent with the great value associated with calligraphy as a discipline in certain traditions, as discussed separately with animations (*Psychosocial Implication in Gamma Animation: epimemetics for a Brave New World*, 2013).

Whilst there is an effort to impose digital order on life (as exemplified by the digital watch), many experience and live life "cursively", as suggested by the sense of liminality and an "imaginal bridge" between digital incommensurables. This suggests that the possibility of rebirth, especially for a culture or civilization, is fruitfully to be explored through the Uncertainty Principle contrasting "particles" and "waves" -- and therefore consistent with social cycle theory, such as explored by Pitirim Sorokin.

For the "individual", framing personal identity in terms of a waveform might then offer the greatest possibility of both dying with integrity and being "reborn" thereafter (*Being a Waveform of Potential as an Experiential Choice: emergent dynamic qualities of identity and integrity*, 2013; *Being Neither a-Waving Nor a-Parting: cognitive implications of wave-particle duality in the light of science and spirituality*, 2013). The conventional framing of dying is then appropriately framed as the progressive disintegration into parts -- reinforced by any problematic emergent conditions of those disparate parts. The sense of "You cannot take it with you" might be more meaningfully understood if the "it" is a "bit" -- consistent with religious aphorisms regarding the inability of the rich to pass through the eye of a needle in order to enter heaven. Metaphorical use of "cursive" also offers the delightful possibility that "rebirth" might be best understood in mathematical terms as a recursive process -- potentially consistent with the arguments of Douglas Hofstadter (*I Am a Strange Loop*, 2007; *Surfaces and Essences: analogy as the fuel and fire of thinking*, 2013) and Steven M. Rosen (*What is Radical Recursion? SEED Journal*, 4, 2004, 1, pp. 38-57)

Death might then be understood as a cognitive breakthrough -- an initiation -- into the multidimensionality hypothesized by string theory. This implies a mode of being not adequately embodied in conventional four-dimensionality (Ron Atkin, *Multidimensional Man: can man*

live in three dimensions? 1981).

Virtualization, emulation and remembrance: The degree of virtualization of the economy has been widely recognized -- and especially with respect to the financial system and cloud computing on which it is now based (Michael Vizard, *Demystifying the Economics of Virtualization and Cloud Computing*, *ITBusinessEdge*, 15 March 2011). It is curious to note how the connectivity, formally symbolized in cursive script, has been rendered virtual through digitalization into "strings" of binary code and the more fundamental implications of the "string theory" of physics. Metaphorical "strings", supposedly meaningless to the senses, now substitute for cursive links. As a cognitive process, this virtualization enables reality to be variously emulated, whether in computer simulations or through media representations (*Dematerialization and Virtualization: comparison of nuclear fusion and cognitive fusion*, 2006). This is currently exemplified by the use of software emulation of alternative [operating systems](#) -- with one such system functioning within another, as with [VirtualBox](#) (see [Comparison of platform virtualization software](#)).

In such terms, physics effectively offers elaborate frameworks through which the cosmos (at the largest and smallest scale) is emulated virtually for a degree of human appreciation. Other disciplines offer emulations of psycho-social reality -- with strings of memories enabling virtual cognitive engagement with the historical past, with hypothetical futures, and with the physically distant present. Understood in this way, reality as a construct can be "operated" much as [Nikola Tesla](#) is renowned for mentally testing his highly creative inventions.

The potentially poignant intimacy of this process may be experienced through remembrance of the dead, any sense of their continuing presence, and anticipation of their future implication. For physicists this has been exemplified in the widely cited case of [Richard Feynman](#) (*A Love Letter: From Nuclear Physicist, Richard Feynman to His Deceased Wife*, 1946) -- a consideration to be placed in the context of his assistance in the development of the atomic bomb and the deaths it ensured. *Dr. Strangelove?* The collective significance of the process is evident from the extreme controversy that continues to be associated with the religious edifices of the three Abrahamic religions in Jerusalem, the burial grounds of many traditions, and official visits to the Shinto [Yasukuni Shrine](#) of Japan -- all of which offer metaphors to die by.

Poetry and music "to die by": The question is whether the intersection of mathematics and poetry can inform the experience of dying, as tentatively envisaged (*Being a Poem in the Making: engendering a multiverse through musing*, 2013). The latter makes reference to the considerable insights offered by music as an intersection between mathematics and experience, whether individual or collective. These have been very extensively explored in the work of [Ernest G McClain](#) (*Myth of Invariance: the origins of the gods, mathematics and music from the Rg Veda to Plato*, 1976; *Meditations Through the Quran: tonal images in an Oral Culture*, 1981).

Other recent studies are especially insightful with respect to the brain's organization of music in experience ([Dmitri Tymoczko](#), *A Geometry of Music*, 2011; [Steven Rings](#), *Tonality and Transformation*, 2011). Such intersections are potentially of special significance in relation to musical accompaniment of the dying process -- "music to die by" (*Use of Music in Care for the Dying*; [Robert E. Krout](#), *Music Therapy with Imminently Dying Hospice Patients and their Families: facilitating release near the time of death*, 2003).

Music of the spheres: More generally there may well be some insight of relevance to dying in the traditional consideration of the "music of the spheres".

Doing maths, and the mathematical experience, can be compared metaphorically with making music. What form might the "last song", or the death song", or the "swan song" of a mathematician take -- in the spirit of the compilation by Harold Bloom (*Till I End My Song: a gathering of last poems*, 2010), or the final *haiku* of a Zen monk (Yoel Hoffmann, *Japanese Death Poems: written by Zen Monks and Haiku poets on the verge of death*, 1986)? A compilation of insights comparable with [Fermat's Last Theorem](#)?

With respect to celebration of the death of a global civilization, how might mathematics (collectively) then inform an [elegiac epic](#) to hold its inspiration for a future Renaissance -- as with the extensive listing provided by *Wikipedia* -- or perhaps in the spirit of the compilation *Songs of the Dying Earth*? The challenge, as with the design of the spacecraft [Pioneer plaque](#), can be conceived as a thought experiment in terms of *Minding the Future* (1980). The combination of mathematics and metaphor in the design and commentaries of key Chinese classics (*Yi Jing*, *Taixuanjing*) is suggestive of one mnemonically significant possibility (as represented in animations above).

These threads are fruitfully interwoven through insights into the 4,000 year-old chanted hymns of the *Rg Veda* of the Indian tradition (as discussed [elsewhere](#)). A very powerful exploration of this work by the philosopher, [Antonio de Nicolas](#), uses the non-Boolean logic of quantum mechanics to suggest valuable insights into experiential integration. The unique feature of the approach is that it is grounded in tone and the shifting relationships between tone -- perhaps fruitfully to be understood as "modelling" analogical relationships:

Therefore, from a linguistic and cultural perspective, we have to be aware that we are dealing with a language where tonal and arithmetical relations establish the epistemological invariances... Language grounded in music is grounded thereby on context dependency; any tone can have any possible relation to other tones, and the shift from one tone to another, which alone makes melody possible, is a shift in perspective which the singer himself embodies. Any perspective (tone) must be "sacrificed" for a new one to come into being; the song is a radical activity which requires innovation while maintaining continuity, and the "world" is the creation of the singer, who shares its dimensions with the song. (*Meditations through the Rg Veda: four-dimensional man*, 1976 p. 57)

However this framing raises the question as to how the singer might then consciously embody the process of dying.

Flowering of civilization -- Deflowering of culture: a complex dynamic

This section has since been expanded considerably in a separate document (*Flowering of Civilization -- Deflowering of Culture: flow as*

a necessarily complex experiential dynamic, 2014) with the following section headings:

- Introduction
- Flowering and deflowering
- Cutting flowers as a questionable strategic metaphor
- Seeds of change and regeneration
- Virtualization of nature and disconnection from roots
- Healthy engagement with decay and corruption
- Recognizing viable pathways of diminishing competence
- Dynamic of inspiration and expiration
- Flow: plant regeneration through flowers
- Navigating the seasons of the adaptive cycle: natural alchemy?
- Dynamics of confidence: a "combustion engine"?
- Arranging the flowers to engender an ecosystem?
- Conclusion
- References

Renaissance of a brain-dead global civilization?

Brain-dead? It could be concluded that any inference that the current global knowledge-based civilization is "brain-dead" is an exaggeration -- although the possibility of it becoming "brane-dead" merits consideration in the light of future insights into the nature of the [noosphere](#) and its "song lines" (*From Information Highways to Songlines of the Noosphere*, 1996) This is especially the case in the light of the remarkable development of the internet -- with more developments expected, notably those framed as the [semantic web](#). The problem with such enthusiasm is that it obscures other developments -- of which the electronic surveillance disclosures are but an aspect.

Myth of exponential increase in connectivity: The implication that everyone can connect with everyone, and with all human knowledge, is a myth in practice. This was demonstrated to some degree in an earlier form -- by the telephone. Connection is indeed possible, but it does not necessarily occur. With the web, information can indeed be found, but not as readily as is assumed. Typically there are commercial and copyright constraints to access -- even with respect to metaphors (*Future Coping Strategies: beyond the constraints of proprietary metaphors*, 1992). Most evident is the constraint on attention time and the incapacity to understand the more obscure topics -- thereby readily framed as irrelevant. The human brain cannot engage meaningfully with more than a limited quantity of information.

Requisite memory retention for system viability: How short-term can memory retention become before rendering a brain non-viable -- if not "dead". The question is relevant to the ever increasing degree of hyperactive multi-tasking in an information rich context characterized by overload -- the "[blip culture](#)" named by [Alvin Toffler](#), as discussed separately (*Hyperaction through Hypercomprehension and Hyperdrive*, 2006). As with [attention deficit hyperactivity disorder](#) (ADHD), it bears consideration with respect to the daily ratings focus of politicians in leadership roles.

The dysfunctional dynamic could be compared to [cardiac fibrillation](#). At what level of attention deficiency does a global system become non-viable?

Inhibition of meaningful connectivity: There is a case for recognizing an inverse variant of [Moore's Law](#) with regard to reduction to global comprehension. There is a sense in which people are isolated by their connectivity preferences. This could be compared to a massive return "from the cities to rural areas" -- a localization process within the dynamics of cyberspace (*Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society*, 2004). Even within such "rural" localities, many effectively live in isolated settlements or "farms" (if not "fortresses") -- with very little effective communication with others "over the mountain range" or "in the next valley". This is a massive breakdown of meaningful connectivity. Information overload necessarily precludes meaningful connectivity -- between the "hemispheres" of both the individual brain and the global brain. The "dialogue" vital to the life and integrity of any organization is severely curtailed (Kenneth J. Gergen, et. al, *Dialogue: Life and Death of the Organization*).

The breakdown is affected by other processes, as variously argued. For [Nicholas Carr](#) (*The Shallows: What the Internet Is Doing to Our Brains*, 2011), as further developed by Alex Soojung Kim Pang (*Distraction Addiction*, 2013), the internet encourages the rapid, distracted sampling of small bits of information from many sources. The necessary skills in scanning and skimming are acquired at the cost of losing capacity for concentration, contemplation, and reflection. The emergence of unsuspected constraining factors is also evident, as with respect to search engine [filter bubbles](#) ([Ethan Zuckerman](#), *Rewire: Digital Cosmopolitans in the Age of Connection*, 2013; [Eli Pariser](#), *The Filter Bubble: what the internet is hiding from you*, 2011), or with the impact on human nature (*Cyborgs, Legaborgs, Finaborgs, Mediborgs Meet the extraterrestrials - them is us*, 2013).

Dysfunctional silence: Silence within a system on matters of operational viability -- suppression of negative feedback -- may come to characterize a global system, as with patterns of denial by an individual or any group. Is the emergence of some "transcendent" form of silence then to be elicited (*Civilization as a Global Configuration of Silences: recognizing silence of a higher order*, 2013)?

At what stage is the functional integrity of any global knowledge society catastrophically undermined by paywalls and secrecy?

Unforeseen singularity? Will the potential for dialogue itself be transformed into a form of dependency, as separately argued (*Forthcoming Major Revolution in Global Dialogue: challenging new world order of interactive communication*, 2013)? Does this have implications for an unforeseen form of singularity, heralding renaissance as a cyborg society -- on permanent cognitive life support? The NSA disclosures are indicative of a precursor of the civilization anticipated through imaginative dramatization in *The Matrix* series.

Systemic brain death: The argument here favours recognition of a form of complementarity between an external globality, as it is associated with the form of the planet, and an internal globality as it relates to the cognitive integration of a viable brain. There is therefore a sense in which both are in some sense "dying" with individual dying to be recognized as a precursor of the global process, and effectively a simulation of it. There is therefore a case for "re-cognizing" the manner in which "brain death" might occur. What degree of connectivity constitutes "brain death" in systemic or cybernetic terms -- even though a flicker of activity may continue to be detectable?

"Demented" scientists and policy-makers: It might be asked whether [tunnel vision](#) and [information silos](#) are indicative of imminent global brain death. Curiously the proposals which emanated from the G8 Dementia Summit (London, 2013), promising an [early cure for dementia](#), are reminiscent of self-serving predictions made with regard to both cancer and artificial intelligence. For some aging policy-makers, there is the tragic-comic possibility of confusion between a preoccupation with dying and with dyeing.

Provocatively it might be asked whether the scientists making such promises are themselves "demented" in ways reminiscent of the dramatization *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* (1964). This applies especially to current proposals for [geoengineering remedies to climate change](#), as separately discussed (*Geo-engineering Oversight Agency for Thermal Stabilization*, 2008). Brain death would appear to be heralded by "occultation" of fundamental systemic processes (*Lipoproblems: Developing a Strategy Omitting a Key Problem*, 2009; *Systematic Gerrymandering of Declared Threats and Legality of Response*, 2013).

Globally "giving up the ghost": If the "global brain" is in process of "dying", heralding the "death" of global civilization, how could this be explored? A form of "life" might be assumed through the continued activity of interconnected computers as a form of neural autonomic system -- as with triggering nerve reactions from a dead frog. The question is the stage at which global civilization effectively "gives up the ghost" and "passes away".

There is therefore some irony to frequent reference to the current need for "life support" in relation to major economies and corporations (*Global Banks: on life support*, *The Economist*, 2 October 2008; Chris Giles, *World economy still on life support*, *Financial Times*, 15 April 2012; Martin Wolf, *Europe is stuck on life support*, *Financial Times*, 31 January 2012).

Uploading the global mind: The enthusiasm for the possibility of [mind uploading "into the cloud"](#) (with its heavenly associations) -- in a quest for a form of immortality of the human individual -- suggests that such thinking might constitute a way of understanding the possibility of a "renaissance" of global civilization. The "global brain" could be stored in its entirety in this way. The difficulty with such a possibility is the manner in which "birth" might subsequently be enabled, given the evident lack of engagement of the current civilization with the world view of any previous civilization -- presumably to be understood as earlier "incarnations". Any such world view can be observed as an externality, but it is questionable how meaningfully it can be embodied. This is an issue explored in arguments for human "reincarnation" -- notably those associated with [rebirthing](#).

Reconstituting living systems: The challenge can be framed otherwise in the light of current enthusiasm for ["nation-building"](#). The lack of evidence that a sustainable nation can be built (or rebuilt from a [failed state](#)), despite whatever active traces of earlier cultures remain, suggests that the "renaissance" of a global civilization would be problematic. The challenge is well modelled by that of reconstituting a complex forest ecosystem, with all its biodiversity, subsequent to its devastation. This is curiously mirrored by that of reconstituting the ecosystem of millions of bacteria forming the "civilization" which characterizes any human individual (*Humans Carry More Bacterial Cells than Human Ones*, *Scientific American*, 30 November 2007).

However, as potential further indication of "global dementia", an initiative by a hitherto incompatible mix of environmental conservationists and synthetic biologists (genetic engineers) meeting at the University of Cambridge in 2013, discussed the possibilities of: designing high-yield crops, tackling invasive species, creating targeted pesticides, making endangered species less vulnerable to extinction, as well as creating new species as a response to widespread extinctions (Jessica Griggs, *The Odd Couple: can bioengineering protect nature?* *New Scientist*, 10 December 2013). The gathering was framed by the possibility that they might together "save life on earth". However, perhaps sensitive to perceptions of "dementia", concerns were expressed that the approach to "low hanging fruit" could constitute a "quick fix" -- rather than appropriately exploring the harder, and equally controversial task of "changing people's behaviour" (psycho-social engineering?).

Are such initiatives to be considered a metaphor of progressive collective cognitive failure to recognize global systemic issues by skillful gerrymandering and tunnel vision -- ironically contributing to the breakdown of the global civilization they seek to protect? The asystemic inadequacies have been most recently studied by [Ben Ramalingam](#) (*Aid on the Edge of Chaos: rethinking international cooperation in a complex world*, 2014). The nature of "strategy" may itself be questionable (Chris Paparone, *Resurrection is Emancipation: exploring "strategy" as a dead metaphor*. *Small Wars Journal*, 24 June 2013).

References

Nicholas Albery, Gil Elliot and Joseph Elliot (Eds). *The Natural Death Handbook*. Natural Death Centre, 1993 [[text](#)]

Christopher Alexander:

- Harmony-Seeking Computations: a science of non-classical dynamics based on the progressive evolution of the larger whole. *International Journal for Unconventional Computing (IJUC)*, 5, 2009 [[text](#)]
- New Concepts in Complexity Theory: an overview of the four books of the Nature of Order with emphasis on the scientific problems which are raised. 2003 [[text](#)]

Sam Alexander. 10 Metaphors for Death. *Xamuel.com*, 2009 [[text](#)]

Philippe Ariès. *The Hour of Our Death*. Knopf, 1981.

Juana I. Marín Arrese. To Die, to Sleep: a contrastive study of metaphors for death and dying in English and Spanish. *Language Sciences*, 18, 1996. 1-2, pp. 37-52.

Ron Atkin:

- *Combinatorial Connectivities in Social Systems*; an application of simplicial complex structures to the study of large organizations. Birkhauser, 1977
- *Multidimensional Man: can man live in three dimensions?* Penguin, 1981

David William Atkinson. *The English Ars Moriendi*. Peter Lang, 1992.

Carolyn Baker and Guy McPherson. *Extinction Dialogs: how to live with death in mind*. Next Revelation Press, 2014

Nick Barter. *Metaphors that facilitate Organisational Understanding: reaching for the new and how machine and organism metaphors do not enable sustainable development*. 2011 [[text](#)]

Mary Catherine Bateson. Six Days of Dying [describing the death of Gregory Bateson]. *CoEvolution Quarterly*, 1980, 28, pp. 4-11 [[text](#)]

Henry Baum. *The American Book of the Dead*. Backword Books, 2011 [[summary](#)]

Nancy Lee Beaty. *The Craft of Dying: a study in the literary tradition of the Ars Moriendi in England*. Yale University Press, 1970.

Robert Bellarmine. *The Art of Dying Well*. In: *Spiritual Writings*, translated and edited by John Patrick Donnelly and Roland J. Teske. Paulist Press, 1989.

Sushila Blackman (Ed.). *Graceful Exits -- How Great Beings Die: death stories of Tibetan, Hindu and Zen Masters*. Weatherhill, 1997

Susan Blackmore. *Dying to Live: Near-Death Experiences*. Grafton, 1993

Harold Bloom (Ed.). *Till I End My Song: a gathering of last poems*. Harper, 2010

Kenneth Boulding. *Ecodynamics; a new theory of societal evolution*. Sage, 1978.

Joel P. Bowman. *Metaphors We Die By (and For)*. SCS Matters, 21 May 2011 [[text](#)]

Costica Bradatan. *Dying for Ideas: the dangerous lives of the philosophers*. Bloomsbury Academic, 2015

British Medical Association. *Withholding and Withdrawing Life-Prolonging Medical Treatment: Guidance for Decision making*. 2001 [[extract](#)]

Kelly Bulkeley. *Dreaming Beyond Death: a guide to pre-death dreams and visions*. Beacon Press, 2005

Bert Bultnick. *Metaphors We Die By: conceptualizations of death in English and their implications for the theory of metaphor*. Universiteit Antwerpen, 1998

Ira Byock. *Dying Well: the prospect for growth at the end of life*. Riverhead Books, 1997

Nicholas Carr. *The Shallows: what the Internet is doing to our brains*. W. W. Norton, 2011

Chris Carter. *Science and the Near-Death Experience: how consciousness survives death.*, Inner Traditions, 2010

Stephen J. Ceci and Wendy M. Williams. *The Mathematics of Sex*. Oxford University Press, 2009

Karen A. Cerulo. *Never Saw It Coming: cultural challenges to envisioning the worst*. University of Chicago Press, 2006

Sabra Chartrand. *Patents: new software is intended to help put one's affairs in order and keep them that way until death*. *New York Times*, 9 July 2001 [[text](#)]

Wing-Shan Cheung and S. M. Ho. The use of death metaphors to understand personal meaning of death among Hong Kong Chinese undergraduates. *Death Stud.*, 28, 2004, 1, pp. 47-62 [[abstract](#)]

Swami Chinmayananda. *Kathopanishad: a dialogue with death*. Chinmaya Mission Trust, 2006

Victor G. Cicirelli. Personal Meanings of Death in Relation to Fear of Death. *Death Studies* 22, 1998, 8

D. L. Clark and A. Goatly. Green Grammar and Grammatical Metaphor, or Language and the Myth of Power: metaphors we die by. *Journal of Pragmatics*, 25, 1996, 4, pp. 537-560 [[text](#)]

Marilyn Cochran-Smith. The Research Base for Teacher Education Metaphors We Live (and Die?). *Journal of Teacher Education*, 53, 2002, 4 [[text](#)]

M. Cohen. Dying as Supreme Opportunity: a comparison of Plato's *Phaedo* and *The Tibetan Book of the Dead*. *Philosophy East and West*, 26, 1976, 3, pp. 317-327.

Frances M. M. Comper. *The Book of the Craft of Dying and Other Early English Tracts concerning Death*. Arno Press, 1977.

Bryant Creel. *The Voice of the Phoenix: metaphors of death and rebirth in classics of the Iberian Renaissance*. ACMRS Publications, 2004

Clio Cresswell. *Mathematics and Sex*. Allen and Unwin, 2004

Simon Critchley. *Book of Dead Philosophers*. Vintage, 2009 [[review](#)]

Keith Critchlow:

- *The Hidden Geometry of Flowers: living rhythms, form and number*. Floris Books, 2011
- *The Mystery of Flowers: the sacred geometry of plants*. *Resurgence*, 272, May/June 2012
- *Order in Space: a design source book*. Thames and Hudson, 2000
- *Islamic Patterns: an analytical and cosmological approach*. Inner Traditions, 1999

Martin Crowley. *Dying Words: the last moments of writers and philosophers*. Rodopi, 2000

Fabiano Dalto, Huáscar Fialho Pessali and Ramón García Fernández. *Metaforas que Matam (Metaphors We Die By)*: [[text](#)]

Philip J. Davis and Reuben Hersh. *The Mathematical Experience*. Mariner Books, 1981

Marie de Hennezel:

- *Dialogue With Death*
- *Intimate Death: how the dying teach us how to live*. Vintage, 1998

Antonio de Nicolas. *Meditations through the Rg Veda: four-dimensional man*. Nicolas Hays, 1976

Jared Diamond:

- *Guns, Germs, and Steel: the fates of human societies*. W.W. Norton, 1997 [[summary](#)]
- *Collapse: how societies choose to fail or succeed*. Penguin, 2005, [[summary](#)]

Matthew J. Dillon. *Dialogues with Death: the last days of Socrates and the Buddha*. *Philosophy East and West*, 50, 4, 2000, pp. 525-558 [[text](#)]

Donald F. Duclow. *Dying Well: The Ars Moriendi and the Dormition of the Virgin*. In: Edelgard E. DuBruck and Barbara Gusick (Eds.), *Death and Dying in the Middle Ages*. Peter Lang, 1999. [[text](#)]

Eamon Duffy. *The Stripping of the Altars: Traditional Religion in England, 1400-1580*. Yale University Press, 1992.

Eknath Easwaran:

- *Dialogue with Death: a journey through consciousness*. Nilgiri Press, 1992
- *Dialogue With Death: the spiritual psychology of the Katha Upanishad*. Nilgiri Press, 1981

Carlos M. N. Eire. *From Madrid to Purgatory: the art and craft of dying in Sixteenth-Century Spain*. Cambridge University Press, 1995.

Lyn D. English (Ed.). *Mathematical Reasoning: analogies, metaphors, and images*. Routledge, 2013

Peter Fenwick and Elizabeth Fenwick. *The Art of Dying*. Continuum, 2008

Eliecer Crespo Fernández:

- *Conceptualizations of Death in Epitaphs from Highgate Cemetery (London)*. 2009 [[abstract](#)]
- *The Language of Death: euphemism and conceptual metaphorization in Victorian obituaries*. *SKY Journal of Linguistics*, 19, 2006, pp. 101-130

John Martin Fische. *The Metaphysics of Death*. Stanford University Press, 1993

Richard Freadman. *Threads of Life: autobiography and the will*. University of Chicago Press, 2001

Johan Galtung and Sohail Inayatullah. *Macrohistory and Macrohistorians: perspectives on individual, social, and civilizational change*. Praeger, 1997

Robert Garland. *The Greek Way of Death*. Cornell University Press, 1985.

Kenneth J. Gergen, Mary M. Gergen and Frank J. Barrett. *Dialogue: Life and Death of the Organization*. In: *Handbook of Organizational Discourse*, D. Grant, Sage [[text](#)]

Sarah Glaz and JoAnne Growney. *Strange Attractors: Poems of Love and Mathematics*. A K Peters, 2008

E. J. Gold:

- *American Book of the Dead*. Gateways Books and Tapes, 2005
- *Parallel Worlds Explored*. Gateways Books and Tapes, 2010

Ronald Green. *Nothing Matters: a book about nothing*. John Hunt, 2011

Stanislav Grof. *Books of the Dead: manuals for living and dying*. Thames and Hudson, 1994

Stanislav Grof and Christina Grof. *Beyond Death: the gates of consciousness*. Thames and Hudson, 1980 [[review](#)]

John Gross. *Intimations of Mortality: Fair of Speech -- the uses of euphemism*. In: D. J. Enright (Ed.), Oxford University Press, 1985, pp. 203-219

V.F. Gunaratna. *Buddhist Reflections on Death*. Kandy, Buddhist Publication Society, 2007 [[text](#)]

Steve Joshua Heims. John Von Neumann and Norbert Wiener: from mathematics to the technologies of life and death. MIT Press, 1982

T. Patrick Hill and David Shirley. A Good Death: taking more control at the end of your life. Addison-Wesley, 1992 [[contents](#)]

James Hillman and Sonu Shamdasani. Lament of the Dead: psychology after Jung's Red Book. W. W. Norton, 2013

Christopher Hitchens. Mortality. Twelve, 2012 [[review](#)]

Yoel Hoffmann. Japanese Death Poems: written by Zen Monks and Haiku poets on the verge of death. Charles E. Tuttle, 1986.

Douglas Hofstadter:

- Gödel, Escher, Bach: an Eternal Golden Braid: a metaphorical fugue on minds and machines in the spirit of Lewis Carroll. Basic Books, 1979 [[summary](#)]
- I Am a Strange Loop, 2007 [[summary](#)]

Douglas Hofstadter and Emmanuel Sander. Surfaces and Essences: analogy as the fuel and fire of thinking. Basic Books, 2013

Thomas Homer-Dixon. The Upside of Down: catastrophe, creativity, and the renewal of civilization. Island Press, 2006

Franklin E. Horowitz. Metaphors We Die By: George Lakoff's "Metaphors Of Terror". [[text](#)]

Craig R. Hovey. Metaphors We Die By: how Christian pacifists make better caregivers. *Toronto Journal of Theology*, 19, 2003, 2, pp. 183-198 [[abstract](#)]

Glennys Howarth. Death and Dying: a sociological introduction, Wiley, 2006 [[summary](#)]

Glennys Howarth and Oliver Leaman. Encyclopedia of Death and Dying. Routledge, 2001 [[text](#)]

Stephen Hurley. The Metaphors We Live (and Die) By. *Perspectives*, 14 February 2012 [[text](#)]

Rusi Jaspala and Brigitte Nerlich. Geoengineering and (un)making the world we want to live in. *Geolog*, 31 July 2013 [[text](#)]

Rusi Jaspala, and Brigitte Nerlich. Media representations of geoengineering: Constructing hopes and fears. Paper presented at the Science in Public Conference, University of Nottingham, UK, 23 July 2013.

Malcolm Johnson (Ed.). The Cambridge Handbook of Age and Ageing. Cambridge University Press, [[summary](#)]

W. T. Jones. The Romantic Syndrome: toward a new method in cultural anthropology and the history of ideas. Martinus Nijhoff, 1961

Susan C. Karant-Nunn. The Reformation of Ritual: an interpretation of Early Modern Germany. Routledge, 1997.

Allan Kellehear. A Social History of Dying. Cambridge University Press, 2007 [[summary](#)]

William Kimmel:

- Images of Death in Western Music: syllabus, lecture notes, and course materials. Graduate Center of the City University of 1977.
- The Phrygian Inflection and the Appearances of Death in Music. *College Music Symposium*, 20, 1980, 2, pp. 42-76.

Frank Kermode. The Sense of an Ending: studies in the theory of fiction. Oxford University Press, 1967 [[summary](#)]

Ian Kinnes. Dialogues with Death. In: Robert Chapman, Ian Kinnes, Klavs Randsborg. The Archaeology of Death, CUP Archive, 1981

Arthur Koestler. Dialogue with Death. Pan Macmillan, 1937 [[review](#)]

Kenneth Kramer:

- The Sacred Art of Dying: how world religions understand death. Paulist Press, 1988 [[extracts](#)]
- Beginning: Dialogue with Death In: The Sacred Art of Dying: How World Religions Understand Death. Paulist Press, 1988, pp. 5-10 [[extracts](#)]

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

Cynthia Kros. Metaphors We Live (and Die) By. *English Studies in Africa*, 55, 2012, 2, pp. 54-68 [[abstract](#)]

Alison Kroulek. 60+ Metaphors for Death From Around the World. *K International*, 13 February 2017 [[text](#)]

Elisabeth Kubler-Ross:

- On Death and Dying. Scribner, 1997
- Death: the final stage of growth. Scribner, 1997

Elisabeth Kubler-Ross and Todd Gold. The Wheel of Life: a memoir of living and dying. Touchstone, 1998

Devaleena Kundu. The Paradox of Mortality: death and perpetual denial. Cambridge Scholars Publishing, 2015

Don Kuiken and Gregory Madison. The Effects of Death Contemplation on Meaning and Purpose in Life. *Omega: Journal of Death and Dying*, 18, 1987-88, 2, pp. 103-112

Ray Kurzweil. The Singularity Is Near: when humans transcend biology. Viking, 2005

George Lakoff:

- Metaphor and War: the metaphor system used to justify war in the Gulf. 1991 [[text](#)]

- Metaphors of Terror. 2001 [\[text\]](#)
- The Contemporary Theory of Metaphor. In: Andrew Ortony (Edi.), *Metaphor and Thought*, Cambridge University Press, 1993 [\[text\]](#)

George Lakoff and Mark Johnson. *Metaphors We Live By*. University of Chicago Press, 1980

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

Timothy Leary, Ralph Metzner, and Richard Alpert. *The Psychedelic Experience: a manual based on the Tibetan Book of the Dead*. Penguin Books, 2008 [\[summary\]](#)

Jean-Yves Leloup and Marie de Hennezel. *L'Art de Mourir: traditions religieuses et spiritualité humaniste face à la mort*. Le Grand Livre Du Mois. 1997

Stephen Levine. *Meetings at the Edge: conversations with the grieving and the dying*. Anchor, 1989

Stephen Levine and Ondrea Levine. *Who Dies? : an investigation of conscious living and conscious dying*. Anchor

James Lewis. *Encyclopedia of Afterlife Beliefs and Phenomena*. Detroit Invisible Ink, 1995

Lien Foundation. *The Quality of Death: Ranking end-of-life care across the world*. Economist Intelligence Unit, 2012 [\[text\]](#)

Herbert S. Long. *A Study of the Doctrine of Metempsychosis in Greece from Pythagoras to Plato*. Princeton: Princeton University Press, 1948

Mary Lutyens. *A Dialogue with Death*. In: *Life and Death of Krishnamurti*

Yuri I. Manin. *Mathematics as Metaphor*. American Mathematical Society, 2007 [\[text\]](#)

Louis Marin. *On Representation*. Stanford University Press, 2001 [\[extracts\]](#)

Robert Marrone. *Dying, Mourning, and Spirituality: a psychological perspective*. *Death Studies*, 23, 1999, 6

April D. Marshall. *Metaphors We Die By*. *Semiotica*, 161, 2006 [\[abstract\]](#)

Ernest G. McClain:

- *Myth of Invariance: the origins of the gods, mathematics and music from the Rg Veda to Plato*. Nicolas-Hays 1976
- *Meditations through the Quran: tonal images in an Oral Culture*, Nicolas-Hays 1981

Jim McLennan:

- *The Death Fantasy Scale: a measure based on metaphors of one's personal death*. *The Journal of Psychology*, 127, 1993, 6,
- *Using Metaphors to Assess Anticipatory Perceptions of Personal Death*. *The Journal of Psychology*, 131, 1997, 3

Thomas Moore. *Dwelling on Death Isn't Neurotic; It's Profoundly Healthy*. Liguorian, February 2000 [\[text\]](#)

Nilesh Nathwani. *Dialogue With Death: a short story inspired by Sri Aurobindo's translation of the Katha Upanishad*. 2001 [\[text\]](#)

Mary Catharine O'Connor. *The Arts of Dying Well: The Development of the Ars Moriendi*. AMS Press, 1966

Brigitte Nerlich. *Coming to terms with climate change through metaphors*. [\[text\]](#)

Brigitte Nerlich and Rusi Jaspala. *Metaphors We Die By? Geoengineering, Metaphors, and the Argument From Catastrophe*. *Metaphor and Symbol*, 27, 2012, 2, pp. 131-147 [\[abstract\]](#)

Damaris G. Nyakoe, Peter M. Matu and David O. Ongarora. *Conceptualization of 'Death is a Journey' and 'Death as Rest' in EkeGusii Euphemism Theory and Practice in Language Studies*, 2, 2012, 7, pp. 1452-1457 [\[abstract\]](#)

Alex Soojung Kim Pang. *Distraction Addiction*. Little Brown, 2013

Chris Papparone. *Resurrection is Emancipation: exploring "strategy" as a dead metaphor*. *Small Wars Journal*, 24 June 2013 [\[text\]](#)

Peter J. Phillips. *Mathematics, Metaphors and Economic Visualisability*. *Quarterly Journal Austrian Economics*, 2007, 10, pp. 281-299 [\[text\]](#)

Rob Potts. *Metaphors we live (and die) by*. *HighWire Innovation Blog*, 10 April 2013 [\[text\]](#)

R. C. Prasad (Tr.). *The Sraddha: the Hindu Book of the Dead*. Motilal Banarsidass, 1995 [\[excerpts\]](#)

Abd al-Rahim ibn Ahmad Qadi. *Islamic Book of the Dead: a collection of Hadiths on the Fire and the Garden*. Diwan Press, 1977 [\[introduction\]](#)

Ben Ramalingam. *Aid on the Edge of Chaos: rethinking international cooperation in a complex world*. Oxford University Press, 2014

Simcha Paull Raphael. *Jewish Views of the Afterlife*. 1996

Steven Rings. *Tonality and Transformation*. Oxford University Press, 2011

Mehta Rohit. *Dialogue with Death: Sri Aurobindo's Savitri, a Mystical Approach*. Motilal Banarsidass, 1996

- S. Romaine. War and Peace in the Global Greenhouse: metaphors we die by. *Metaphor and Symbolic Activity*, 11, 1996, 3, pp. 175-194
- Rachel Rosen. A Generative Metaphor: dying and death in young children's imaginative play. Presentation to a Group Symposium of the British Sociological Association on Death, Dying and Bereavement Study, 26 November 2013 [[text](#)]
- Steven M. Rosen. Dreams, Death, Rebirth: a multimedia topological odyssey into alchemy's hidden dimensions. 2013 [[text](#)]
- Lawrence M. Ross and Howard R. Pollio. Metaphors of Death: a thematic analysis of personal meanings. *Omega: Journal of Death and Dying*, 23, 1991, 4, , pp. 291-307 [[abstract](#)]
- Lawrence M. Ross and Howard R. Pollio. Metaphors of Death: a thematic analysis of personal meanings. *Omega: Journal of Death and Dying*, 23, 4, 1991, pp. 291-307, EJ438980 [[abstract](#)]
- Fleming Rutledge. *The Undoing of Death: Sermons for Holy Week and Easter*. Wm. B. Eerdmans Publishing Company, 2002
- Harry W. Rylands. *The Ars Moriendi (Editio Princeps, circa 1450): A Reproduction of the Copy in the British Museum*. Holbein Society, 1881.
- Elaine Scarry. *The Body in Pain: the making and unmaking of the world*. Oxford University Press, 1987
- Abraham Schmitt. *Dialogue with Death*. Waco TX, Word Books, 1976
- Elena Semino, Zsófia Demjen, Andrew Hardie, Veronika Koller, Sheila Payne and Paul Rayson. Metaphors for 'good' and 'bad' deaths in interviews with hospice managers. [[abstract](#)]
- James Sexton. The Semantics of Death and Dying: metaphor and mortality. *A Review of General Semantics*, 54, 1997, 3, pp. 333-345 [[abstract](#)]
- Michael Shapiro. Metaphors We Die By (Metaphorically). *Language Lore*, 16 January 2012 [[text](#)]
- R. R. Singh:
- Death Contemplation and Contemplative Living: Socrates and the Katha Upanishad. *Asian Philosophy* 4, 1994, 1, pp. 9-16
 - Death, Contemplation and Schopenhauer. Aldershot, Ashgate Publishing, 2007 [[excerpts](#)]
- Jane Idelman Smith and Yvonne Yazbeck Haddad. *The Islamic Understanding of Death and Resurrection*. Oxford University Press, 2002
- Richard Howard Stamelman. *Lost Beyond Telling: representations of death and absence*. Cornell University Press, 1990
- Rachel Stanworth. Metaphors of Letting Go. In: *Recognizing Spiritual Needs in People who are Dying*. Oxford Scholarship Online, 2011 [[text](#)]
- Johann Friedrich Starck. *Daily Hand-Book for Days of Rejoicing and of Sorrow*. Philadelphia, I. Kohler, 1855.
- Howard F. Stein. Death Imagery and the Experience of Organizational Downsizing: Or, Is Your Name on Schindler's List? In the Psychoanalytic Study of Organizations [web site]. [[text](#)]
- Arran Stibbe. The Corporation as Person and Psychopath: multimodal metaphor, rhetoric and resistance. *Critical Approaches to Discourse Analysis across Disciplines*, 6, 2013, 2, pp. 114-136 [[text](#)]
- C. Tandy (Ed.). *Death and Anti-Death Volume 5: Thirty Years after Loren Eiseley*. Palo Alto, CA: Ria University Press, pp. 165-196
- Gordon Tappan. *Dialogues with Death*. Humanistic Psychology Institute, 1974
- Jeremy Taylor. *The Rule and Exercises of Holy Dying*. Arno Press, 1977.
- Mark C. Taylor. *Field notes from elsewhere. Reflections on dying and living*. (2009)
- Elizabeth Trahan. The Divine and the Human -- Or Three More Deaths: a late chapter in Tolstoy's Dialogue with Death. *Tolstoy Studies Journal*, III, 1990
- Mark Turner. *Death is the Mother of Beauty: mind, metaphor, criticism*. University of Chicago Press, 1987
- Dmitri Tymoczko. *A Geometry of Music: harmony and counterpoint in the extended common practice*. Oxford University Press, 2011
- T. Ulyatt. The four-year eternity: sacrifice, death, and resurrection as metaphors for aspects of tertiary institutional transformation. *South African Journal of Higher Education*, 17, 2003, 1, pp. 83-90 [[abstract](#)]
- Helen Vendler. *Last Looks, Last Books: Stevens, Plath, Lowell, Bishop, Merrill*. Princeton University Press, 2010
- Ayya Mie Vimala. *Crossing the Realm of Death: contemplation of death in Buddhist meditation, literature and living experience*. AuthorHouse, 2008
- Anna Vogel. Going towards the Unknown: expressions for dying in European languages. [[text](#)]
- Sarah Voss:
- What Number Is God?: metaphors, metaphysics, metamathematics, and the nature of things. SUNY Press, 1995
 - Zero: Reflections about Nothing . Cross-Cultural Publications, 1999
- Donald Weasenforth. *Metaphors We Live and Die By: using conceptual metaphor to leverage public support for initiation and prosecution of the Iraq War*

Jeremy Webb. *Nothing: from absolute zero to cosmic oblivion -- amazing insights into nothingness*. Profile Books, 2013

Marilyn Webb. *The Good Death: the new American search to reshape the end of life*. Bantam Books, 1997

Patricia Weenolsen and Bernie S. Siegel. *The Art of Dying: how to leave this world with dignity and grace, at peace with yourself and your loved ones*. St. Martin's Press, 1997

Simone Weil. *Gravity and Grace*. Routledge, 2002

Robert Wicks. The Therapeutic Psychology of 'The Tibetan Book of the Dead.' *Philosophy East and West*, 47, 1997, 4, pp. 479-494
[\[text\]](#)

John Woods. *Engineered Death: abortion, suicide, senecide*. Ottawa, University of Ottawa Press, 1978

Arthur M. Young:

- *Geometry of Meaning*. Delacorte Press, 1976
- *Mathematics, Physics and Reality*. Robert Briggs, 1990

Slavoj Zizek. *Living the End Times*. Verso, 2010



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