



# laetus in praesens

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## Resource Insights from Plus or Minus 12 People on a Liferaft

### Thought experiment to highlight global dilemmas in a comprehensible context

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#### Introduction

[Peeling away convention -- as a prelude to survival cannibalism?](#)

[Cannibalism as metaphor: reinterpreting incorporation](#)

[Voices in the liferaft dialogue](#)

[Emergence of radical questions challenging conventional assumptions](#)

[Guidelines to group survival discourse from fact and fiction](#)

[Spaceship Earth, lifeboat, liferaft and lifeplan as complex associations](#)

[References](#)

## Introduction

There have been numerous accounts of global resource constraints over past decades -- and the nature of the crises predicted through failure to engage with them appropriately. The argument here arises from the classic observation that crises involving millions evoke a form of [psychic numbing](#) which severely inhibits such engagement. Suffering on the larger scale does not connect with ordinary comprehension, despite media reporting on a daily basis. Disasters involving millions are essentially meaningless to most. When the dilemmas are presented on a more human scale, involving very few, they then become far more comprehensible and meaningful. Hence the media tendency to focus extensively on single-person "human interest" stories.

The experiment described here is necessarily inspired by current debates regarding [food security](#) -- whether or not these are explicitly related to those of [immigration](#). The former is framed as the challenge for developing countries and the latter as that for developed countries. In systemic terms "food security" and "immigration" are effectively mirror images (or inversions) of one another -- in contrasting parts of the world. Most striking is the optimistic strategic naivety with regard to food security as the global population increases significantly. On the other hand, immigration is now being framed as the major issue for Europe, if not for the USA and Australia. Most significant in the debate is the absolute lack of any demonstrably viable solution.

The phrase emphasized with respect to European societies is that current levels of influx constitute a form of time-bomb. The continuing build-up in population driving these processes is carefully avoided (*Institutionalized Shunning of Overpopulation Challenge: incommunicability of fundamentally inconvenient truth*, 2008). Most significant is the manner in which the challenge of immigration is now framed as what amounts to a "firefighting problem" (*From Reactive to Proactive Management: getting out of "firefighting" mode, Mind Tools*). Longer-term considerations are set aside. Food security is readily framed in those terms -- how to deal with the hungry today.

The argument here is for a thought experiment inspired by many accounts -- whether true or developed in fiction. The focus here is on 12 people who find themselves isolated on a liferaft with limited resources -- or perhaps as classic castaways on an arid remote island. The experiment explores the dialogue between them as the finite nature of the resources becomes ever more evident -- and there is increasing recognition of the improbability of being saved. Insights emerge as the dialogue progressively calls into question assumptions conventionally made. Such an argument was first developed by Garrett Hardin ([Living on a Lifeboat](#), *Bioscience*, 1974)

Some form of lifeboat gives appropriate focus to the argument -- given the thousands of "boat people" who use such means to escape the chaos of their own countries and to seek asylum in developed countries. Many die in the process (*Mediterranean migrant deaths: a litany of largely avoidable loss*, *The Guardian*, 3 October 2013). This curiously offers a symbolic mirror of the foreseeable future global situation -- and the decision-making paralysis it engenders. However, for comprehensibility, the focus here is on the psychosocial dynamics within a single boat in that more classic survival situation.

The experiment acquires greater significance through a particular device. An extended timescale is assumed, namely that there are sufficient resources on the liferaft to sustain life over a period in which children may well be produced by those on the boat. This process represents a significant increase in the number of mouths to feed as the resources diminish -- a "12 plus" situation. On the other hand some may become expendable and be abandoned (or eaten) -- a "12 minus" situation. Of some relevance is the classic behavioural

research on exploding rodent populations and on survival cannibalism.

As a thought experiment focusing on discourse and argumentation, it can be explored with different configurations of people. For example, these could be of various cultures, various religions, various lifestyles, various disciplines, various ideologies, and various ages - or any combination of such variety. One variant might explore the classic case of "12 wise men" and contrast it with that of "12 wise women" -- or, necessarily more fruitfully, six of each.

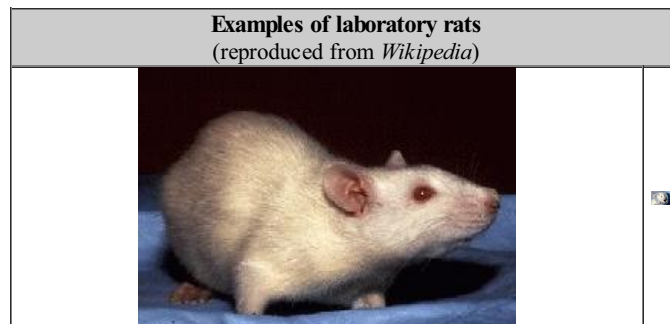
A further variation might explore the case where there is another similar group on a not-too-distant liferaft -- or island -- facing similar resource constraints and dilemmas. Of course, the isolation suggested by a "liferaft" can be understood otherwise, namely as a form of socio-economic "isolation". This is characteristic of the living conditions of any small group of people -- possibly confronted with neighbouring groups with their own resources (whether constrained or otherwise).

## Peeling away convention -- as a prelude to survival cannibalism?

**Learning from rats:** The behaviourist [John B. Calhoun](#) is renowned for his widely-cited pioneering experiments with rats (*Letting the rat out of the bag: the cultural influence of John B. Calhoun's rodent experiments*, *London School of Economics and Political Science*, June 2009). He claimed that the bleak effects of [overpopulation on rodents](#) were a grim model for the future of the human race. During his studies, Calhoun coined the term "[behavioral sink](#)" to describe aberrant behaviours in overcrowded population density situations. Whilst indicative, the focus in the experiment proposed here is on the kinds of arguments elaborated as the plus-or-minus 12 people progress into a behavioural sink.

In contrast to the thought experiment proposed here, the equipment and procedures used by Calhoun can be easily replicated at low cost in any school laboratory -- or by children at home. It is merely a matter of placing plus or minus 12 rats (preferably of both sexes) in an environment with very limited food. The change in their behaviour over time can then be easily observed as the number of rats increases and the resources diminish. The experiment can be varied by adjusting the daily food supply.

There are however insights to be derived from the experiment regarding its implications for humanity, beyond those documented by Calhoun. These relate to the role of the experimenter and the societal rules governing any such experiment. Clearly some school authorities would curtail or forbid such experiments in the light of social pressures regarding cruelty to animals -- although dissection of rats has long featured in school biology. Such prohibition would be curious in a world where millions of rats are sacrificed annually in [medical experimentation](#) in order to save human life. Known as [laboratory rats](#), some are especially bred for such experiments, notably *Rattus norvegicus*.



What conclusions might then be elicited for humans from imposition of constraints on a Calhoun-style experiment? Why is acquisition of knowledge from such an experiment in school considered to be inappropriate to modern education in a resource-challenged society? Why is the focus of society placed on the use of rats in service of advancing knowledge with respect to such a particular understanding of individual health?

Potentially even more interesting is the power of the experimenter, readily to be compared with that of global governance -- from the perspective of the rats whose food supply is controlled by the policies of that "government". Given the experimenter's power of life and death over the rat population, that role could even be compared to that of God -- from the perspective of the rats in hope of relief from their increasingly desperate resource situation. Consideration of the ethical and related issues of the experiment are then potentially of far greater relevance to remedial action in response to the human condition -- framed otherwise by that on a liferaft. In taking on the role of God, the experimenter is of course free to terminate the experiment in any way at any time.

In the light of the issues with respect to the governance of humans, an additional possibility of any such rat experiment is exploration of "intervention policies" corresponding to those actively debated with regard to human social security and child allowances. What are the learnings to be derived from reinforcing reproductive tendencies -- selectively rewarding with food those rats which engender progeny? What are the consequences of protective measures for rats that are disabled or disadvantaged in any way?

Why should children not be exposed to the implications of such ethically-inspired policies and to consideration of the dilemmas in the human case? Should those favouring intervention be obliged to take on greater responsibility for both intervention and for its outcome -- in order to learn from the implications of non-consensual governance?

**Insights from survivalism:** Also of relevance are the many studies and accounts of survival under extreme conditions or in remote areas -- the literature of [survivalism](#) and emergency relief ([Remote Areas Emergency Medicine and Survival](#)). Of some relevance is the limited nature of the coverage of the cognitive effects of starvation by Frank Golden and Michael Tipton (*Essentials of Sea Survival*, 2002, pp. 170-171). Reporting on one classic study in 1950, designed to induce a slow, steady, and eventually severe loss of weight, the

authors note "little indication of changes in the cognitive performance of the group":

Individual subjects did report memory lapses, inability to concentrate, obsessive behaviors, apathy, lethargy, confusion, and indifference, Psychiatric deterioration occurred in 25 percent of the subjects. Analyses of behavior during famines, of men lost at sea, and of prisoners of war show similar findings and confirm that lethargy, helplessness, and hypochondria disrupt cognitive performance. But these problems do not prevent intelligent and purposeful behavior when the opportunity arises to procure food or escape the situation... Studies that combine starvation with other stresses... suggest that cognitive performance degradation of 5 to 35 percent can occur within days.

No indications are offered regarding the collective performance of the group -- prior to brief reference to "Cannibalism on the Open Water" (p. 172). Greater concern is given there to the rations appropriate to a lifeboat. On a world in crisis, with global governance readily described as being "at sea", it is curious that there is so little question of **rationing** -- although the many malnourished and starving can be readily perceived to be subject to a rationing regime of a kind. This could be explored as a strange form of "auto-rationing".

Much of the survival literature tends to focus on preparedness and the acquisition of survival skills, notably as a feature of military training. The focus is primarily on individual preparedness, and to a far lesser degree on the psychology of the group as its situation degrades. One exception is:

- *Survival Scenario Exercise: Description of a Group Dynamics Team Building Exercise* -- suggesting debriefing questions in response to the following scenarios:
  - *Your plane crashed...your group needs to choose the 12 most useful items to survive...*
  - *A nuclear bomb has been dropped...a radiation-free shelter is available, but can only take 6 people; choose who will survive...Choose / rank **people** in terms of who will get to live or die in situations with limited survival resources*

Emphasis may well be placed on the leadership required in a group in hardship situations. This obscures the emergence of insights into the nature of the dialogue as the hardship increases and any leadership may well be subject to challenge and loss of credibility. Discontent may evolve into mutiny of some kind. How does leadership reframe an unknown future -- as the situation becomes ever bleaker and more fearful (*The Future of Leadership: reframing the unknown*, 1994).

**Survival cannibalism:** A proportion of the survivalist literature notes the conditions under which resorting to cannibalism is **recognized** as a credible option -- if any are to survive. Current examples are cited with some frequency (*Cannibalism feared in wilderness survival story*, ABC News, 5 December 2012; *Cannibalism in North Korea: to eat or not to eat*, *The Voice of Russia*, 1 February 2013; *Cannibalism and the experience of survival*, *IBss Blog*, 25 July 2008).

Of relevance to such situations is the methodology offered by **Lewis F. Petrinovich** (*The Cannibal Within*, 2000) in his specific focus on the survival cannibalism option. This cites many accounts, notably as a consequence of shipwrecks and aircraft crashes. He argues:

The patterns of behavior that occur in cases of survival cannibalism are orderly, and make biological sense -- they appear to reveal behavioral tendencies that have evolved to forward the ultimate goal of perpetuating one's genes into future generations -- and outcome known as reproductive success. (p. 7).

He explores some of the ecological and sociological factors that predispose some individuals to engage in similar circumstances. In a discussion of suspending social norms, he argues that:

One way to glimpse the basic mechanisms that regular behavior would be to study events that take place when people must survive in times of disaster. When the disaster is severe and continues over a longer-term, with the survival of many individuals involved, the normal rules of civilization are no longer operable. Behavior during disasters can reveal basic patterns of coping that come into play as victims are forced to devise ways to survive. Such disasters are often those in which people starve because they are isolated and stranded, are under severe conditions of siege in wartime, have suffered shipwreck and are adrift in lifeboats, and have endured times of prolonged famine. Those disasters in which cannibalism did not occur also can be examined to try to understand the constraints that prevented the appearance of a behavior that occurs frequently, although most members of society deplore it. (p. 7)

Of considerable relevance to the proposed experiment is Petrinovich's report on various studies made with his colleagues:

Another way to peel away the layers of social convention in order to glimpse the structure of people's moral beliefs is to ask them to resolve hypothetical dilemmas... My colleagues and I investigated human moral intuitions by posing dilemmas in which people were asked to make choices between unpalatable alternatives... These alternatives were remote from anything that the respondents would have experienced, or would likely ever experience, in the course of their normal existence; but the choices had to be made, even though all available alternatives were often abhorrent to them.

Two fantasy dilemmas are used most often in our studies: the trolley and the lifeboat dilemma... In the lifeboat dilemma it is proposed that a ship has sunk and there is a lifeboat with survivors, but, given the limited capacity of the lifeboat, some individuals have to be thrown overboard. The composition of the occupants of the lifeboat can be varied and the participant is asked to choose who is to drown. Results supported the conclusion that using such fantasy materials reveals basic aspects of human nature, unfettered by the laws, norms, and traditions of culture. The decision pattern was the same for all categories of participants, regardless of country of origin, language, sex, race, and religion (p. 7-8)

Again, in contrast to such experiments, **the proposal here is to highlight the stages of discourse amongst participants on the liferaft** as the situation and options are progressively reframed in response to resource constraints -- namely how assumptions are progressively called into question. Hence the potentially greater relevance of the fictional accounts of the dialogue and dynamics in survival situations. Highlighting cannibalism as a possible extreme may distract from any focus on earlier stages. Any descent into savagery could be described in terms of loss of connectivity -- whereby the "**pattern that connects**" in civilized society becomes frayed and torn, as warned by [Gregory Bateson](#).

**Clues to "peeling away" from cover-up processes:** The preoccupation of this experiment is with the dilemmas of global society. It is therefore appropriate to explore how cover-up processes inhibit engagement with such dilemmas in practice. The most extreme form of cover-up necessarily takes the form of suppression of information or prohibition of its dissemination, as is so evident in wider society (*Global Strategic Implications of the "Unsaid"*, 2003). Cover-up processes might then offer an indication of how corresponding processes could operate on a liferaft -- if only as a metaphor. The processes have been organized into a remarkable [typology of cover-ups](#) in the relevant *Wikipedia* entry -- based on analysis of a number of typical cases. A selection from that typology is presented in the following table, and discussed separately in detail (*Vital Collective Learning from Biased Media Coverage: acquiring vigilance to deceptive strategies used in mugging the world*, 2014). What are the "media" on a liferaft and how might consideration of life-threatening issues be "biased" -- given the immediacy of challenges?

<b>Typology of cover-up processes suggestive of discourse deterioration on a liferaft</b> (adapted from <i>Wikipedia</i> )	
<p><b>Initial response to allegation</b></p> <ul style="list-style-type: none"> <li>-- Flat denial</li> <li>-- Convince the media to bury the story</li> <li>-- Preemptively distribute false information</li> <li>-- Claim that the "problem" is minimal</li> <li>-- Claim faulty memory</li> <li>-- Claim the accusations are half-truths or lack proof</li> <li>-- Attack the critic's motive and character</li> </ul> <p><b>Withhold or tamper with evidence</b></p> <ul style="list-style-type: none"> <li>-- Prevent the discovery of evidence</li> <li>-- Destroy or alter the evidence</li> <li>-- Block or delay investigations</li> <li>-- Issue restraining orders</li> <li>-- Claim executive privilege</li> </ul> <p><b>Delayed response to allegation</b></p> <ul style="list-style-type: none"> <li>-- Deny a restricted definition of wrongdoing (e.g. torture)</li> <li>-- Limited hang out (i.e., confess to minor charges)</li> <li>-- Use biased evidence as a defense</li> <li>-- Claim that the critic's evidence is biased</li> <li>-- Select a biased blue ribbon commission or "independent" inquiry</li> </ul> <p><b>Intimidate participants, witnesses or whistleblowers</b></p> <ul style="list-style-type: none"> <li>-- Bribe or buy out the critic</li> <li>-- Generally intimidate the critic by following him or her, killing pets, etc.</li> <li>-- Death threats of the critic or his or her family</li> <li>-- Threaten and intimidate the critic</li> <li>-- Murder; assassination</li> </ul>	<p><b>Publicity management</b></p> <ul style="list-style-type: none"> <li>-- Bribe the press</li> <li>-- Secretly plant stories in the press</li> <li>-- Retaliate against hostile media</li> <li>-- Threaten the press with loss of access</li> <li>-- Attack the motives of the press</li> <li>-- Place defensive advertisements</li> <li>-- Buy out the news source</li> </ul> <p><b>Damage control</b></p> <ul style="list-style-type: none"> <li>-- Claim no knowledge of wrongdoing</li> <li>-- Scapegoats: blame an underling for unauthorized action</li> <li>-- Fire the person(s) in charge</li> </ul> <p><b>Win court cases</b></p> <ul style="list-style-type: none"> <li>-- Hire the best lawyers</li> <li>-- Hire supportive scientists and expert witnesses</li> <li>-- Delay with legal maneuvers</li> <li>-- Influence or control the judges</li> </ul> <p><b>Reward cover-up participants</b></p> <ul style="list-style-type: none"> <li>-- Hush money</li> <li>-- Little or no punishment</li> <li>-- Pardon or commute sentences</li> <li>-- Promote employees as a reward for cover-up</li> <li>-- Reemploy the employee after dust clears</li> </ul>

## **Incorporation for survival: cannibalism as metaphor?**

There is a strong case for recognizing the relevance of the process of cannibalism in metaphorical form -- as a potential precursor to any physical manifestation. It is currently common in threatening discourse between competitors and opponents, with one claiming to "eat up" the other, to "swallow them" in some way -- relishing the prospect. This can be seen as a way of framing dominance and exploitation. It has been used in discussion of violence and usury (*Is cannibalism a metaphor for usury?* *Corrente*, 6 February 2012).

In discussing "a problem in the history of violence" in a review of cannibalism, Dan Beaver argues (*Flesh or Fantasy: cannibalism and the meanings of violence*. *Ethnohistory*, 2002)::

Cannibalism evokes, as few other phenomena, a range of reflection from the most sublime metaphors of religious sacrifice to images of the most extreme murderous cruelty. Across cultures the notion of humans eating other humans pervades belief and behavior, assuming many forms of expression in language, myth, symbol, and ritual. Yet the passions aroused by cannibalism, the moral terms too often clouding debate, tend to compound difficult problems of evidence, making this common aspect of human culture among the most difficult to study. As native accounts may express myth and metaphor—the past practice of cannibalism often being difficult to verify—the accounts of mariners and missionaries may reflect merely their assumptions, prejudices, fantasies....

In many cultures a complex discourse of cannibalism makes analysis of this violent social practice exceedingly difficult. Among

its other capacities, this discourse conceives stereotypes of the most vicious insiders and outsiders, such as European representations of witches and cannibals practicing ritual infanticide, and the use of such images in everyday settings may transform an act of violence into an expression of pure evil. An example from the annals of survival cannibalism illustrates the problem. During the German [Siege of Leningrad](#) from 1941 to 1943, the Russian sappers who dynamited the frozen earth of cemeteries to make graves observed shoulders, arms, and thighs missing from many of the bodies brought on sleds for burial and reasonably inferred some of the starving population had taken the flesh for food...

The important evidence of postmortem violence from survival cannibalism is more difficult to evaluate because it is contextually related to less credible rumors of cannibal gangs roaming the streets of Leningrad during the siege, inducing frightened parents to keep young children off the streets. Moreover, this type of evidence is easily incorporated in narratives of human reduction to savage and primitive behavior, morality tales...

Use is however also made of phrases with such connotations as an expression of the greatest affection -- "I could eat you up". Potentially of more relevance is the problematic case of its application in even subtler relations ([Swami Rudrananda, \*Rudi: Spiritual Cannibalism\*](#), 2001).

Such usage is consistent with arguments in the more recent literature on cannibalism as reviewed by Kristen Guest ([Eating Their Words: Cannibalism and the Boundaries of Identity](#), 2001) with respect to publication of [Maggie Kilgour's](#) seminal study of cannibalism in literature ([From Communion to Cannibalism: an anatomy of metaphors of incorporation](#), 2014). She notes that scholars have begun to reconsider the complex history of representations of the cannibal. Rather than relating cannibalism to contemporary events, or to a particular period's interest in sensationalizing it, critics have begun to rethink how representations of cannibalism help to produce, contest, and negotiate our identity as subjects:

The wide variety of critical work now being done on cannibals and literature indeed owes much to Kilgour's argument... which takes as its starting point the binary definition of self and other that underpins most representations of cannibalism. As Kilgour points out, the notion of incorporation central to the idea of cannibalism "depends upon and enforces an absolute division between inside and outside", yet at the same time, the act "dissolv[es] the structure it appears to produce".<sup>1</sup> Insofar as it examines the relationship between cannibalism and our dominant western mode of producing meaning through strategies of exclusion, Kilgour's work has paved the way for such important reevaluative readings of cannibalism as the cross-disciplinary collection [Cannibalism and the Colonial World](#), edited by Francis Barker, Peter Hulme, and Margaret Iverson (1998), as well as for the translation of [Frank Lestringant's](#) [Cannibals: The Discovery and Representation of the Cannibal from Columbus to Jules Verne](#) (1997)...

Such preoccupation suggests that the potential of "cannibalism" in the proposed thought experiment is of relevance to thinking about how global society "consumes" some peoples whole -- and may end up consuming itself, as has been alleged to have been the fate of the Easter Islanders ([Jared M. Diamond, \*Collapse: how societies choose to fail or survive\*](#), 2005). In a world increasingly dominated by multinational corporations, there is a magnificent irony to the additional connotation then offered by the process of "incorporation". This accords with widespread popular fascination with [vampirism](#) -- by which corporations can be metaphorically framed ([Global Civilization of Vampires: governance through demons and vampires on spin](#), 2003). More curious is what this might then imply with respect to [corporate personhood](#), whereby a corporation may be recognized as an individual in the eyes of US law..

Further to the argument of Kristen Guest, there is greater irony to the possibility that the psychological implications of "incorporation" merit reflection as indicative of a more fundamental approach to global dilemmas (*Defining the objective ∞ Refining the subjective ?!*: [Explaining reality ∞ Embodying realization](#), 2011; [Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines](#), 2009). Survival of civilization may depend on some form of "cognitive embodiment" (George Lakoff and Mark Johnson, [Philosophy In The Flesh: the Embodied Mind and its Challenge to Western Thought](#), 1999).

The curious metaphorical associations between usage of "eating", "consuming", "embodying", "incorporation" and "communion" -- whether in relationship to nourishment from nature, sex, social organization, or spirituality -- culminate strangely in "consummation". This cognitive complex may offer a way of reframing the evolution of discourse under life-threatening conditions.

There is a strange sense in which life-threatening pressures force a reframing of significant relationships with any "other" in ways reminiscent of the phenomenological arguments of [Steven M. Rosen](#), articulated cognitively through the paradox of the [Klein bottle](#) ([Topologies of the Flesh: a multidimensional exploration of the lifeworld](#), 2006). This is most evident in the [Eucharist](#) as the central ritual of Christianity, as variously expressed through the phrase introduced at the archetypal [Last Supper](#) with the 12 Apostles:

- And when he had given thanks, he broke it and said, *This is my body, which is for you; do this in remembrance of me.* ([1 Corinthians 11:24](#))
- *This cup is the new covenant in my blood. Do this, as often as you drink it, in remembrance of me* ([1 Corinthians 11:25](#)).

It is clearly characteristic that such ritual should appeal to many when all seems lost -- as a last resource. The phrases can of course be understood as enjoining to a form of "spiritual cannibalism" -- however special the manner in which this is held to be comprehended. Such significance continues to evoke controversy. This is even more the case if it is understood to have global implications enjoining a mysterious form of consumption of any "other" -- as a means of "re-memberance", however strange. As evident in Rosen's arguments, it is the self-reflexivity associated with incorporating the other which is of relevance. It could even be said that the "cup", central to the ritual and the Grail quest, could be understood in terms of the four-dimensionality of the Klein bottle ([Interrelating Cognitive Catastrophes in a Grail-chalice Proto-model](#), 2006; [In-forming the Chalice as an Integrative Cognitive Dynamic: sustaining the Holy Grail of global governance](#), 2011).

The ritual is consistent with the role of sacrifice in more tangible form, long predating Christianity. The question for global society is whether it is fundamentally dependent on such sacrifice in response to resource-related crises (*Systemic Reliance of World Religions on Human Sacrifice*, 2014). As a deeply unconscious process, this would be consistent with the arguments of John Ralston Saul (*The Unconscious Civilization*, 1995).

## Voices in the liferaft dialogue

**Requisite variety of voices:** The arbitrary choice of 12 people for the experiment derives from the meaning associated with 12 in a variety of contexts -- most notably that of the size of a jury and the strategic appropriateness often associated with this number (*Checklist of 12-fold Principles, Plans, Symbols and Concepts: web resources*, 2011; *Eliciting a 12-fold Pattern of Generic Operational Insights: Recognition of memory constraints on collective strategic comprehension*, 2011).

Such a choice raises the question of the number of voices for the requisite variety of a useful experiment. Presumably that point has been extensively argued in the case of a jury of 12 whereby justice is determined -- including that calling for the death penalty. Those arguments could be extended to the number required for decisions regarding group survival.

The point to be made is that, when the number increases to that of the size of any parliamentary assembly, the "existential focus" of a lifeboat situation is necessarily lost. More intriguing are the insights to be gained from the number of voices considered appropriate in the more complex forms of music and multi-part singing, or their expression through the *dramatis personae* of any play highlighting existential issues, as separately explored (*Enabling a 12-fold Pattern of Systemic Dialogue for Governance*, 2011). How is the "governance" of a lifeboat situation to be rendered optimal as conditions deteriorate?

Potentially at least, a great deal can be learned from the different voices amongst 12 such people -- as is often explored in fiction and drama, and as argued separately (*Implication of the 12 Knights in any Strategic Round Table: each circulating globally in quest of sustainability and immortality*, 2014). The focus in a lifeboat is of course on who should get what and when, namely on how the resources should be distributed -- and who exploits whom in the process. An emphasis is also given to how to acquire additional resources, through fishing, catching rainwater, etc. Ingenuity may also be deployed in the quest for safety -- navigation, construction and use of sails and paddles, etc.

**Distribution of roles and preoccupations:** With respect to distribution of tasks and resources, thought could be given to the arguments presented in contrasting cases:

- one or more cultures, highlighting contrasting recognition and distribution of roles (leadership, male/female, young/old, etc)
- one or more religions, reframing the distribution of roles in terms of matters of faith and belief in the possibility of divine intervention (possibly involving individual or collective prayer, ritual and sacrifice)
- one or more ideologies, again reframing issues of distribution in the light of the well-known extremes of right-wing and left-wing perspectives
- one or more lifestyles, with the challenges to the principles of those whose identities are associated with well-resourced environments, in contrast with those able to adapt flexibly to changing circumstances -- effectively to "downsize"
- one or more behavioural patterns and needs, typically highlighted by age and attractiveness, played out in terms of protectiveness and sexuality
- one or more disciplines, with the contrasting perspectives of the technocratic, those focused on group dynamics (sociology, politics, conflict resolution, etc), those preoccupied with health (medical, etc), those focused on psychological dimensions (psychotherapy, etc), and those conscious of the drama as an aesthetic phenomenon
- one or more styles of leadership and group dynamics

**Emergence of recognizable patterns:** Of particular interest is the manner in which the evolving drama causes the emergence of classic patterns amongst the 12, as might otherwise be recognized through the categories and processes of such as:

- **integral thinking:** whether as **integral spirituality** (namely the inclusive philosophy, spirituality, or practice, inspired by the writings of Sri Aurobindo, Jean Gebser, Ken Wilber, and/or others) or as **integral theory** (emanating from Ken Wilber's thought on spiritual evolution, methodology and ontology)
- **team roles** according to the theory of **Meredith Belbin** (*Management Teams*, 1981).
- **personality type theory:** whether according to the **Myers-Briggs Type Indicator**, the **enneagram of personality**, the star signs of the zodiac, or otherwise
- metaphorical round tables especially given the archetypal inspiration of the **12 knights of the roundtable**, or the **12 apostles**.

**Patterns of discourse enabling a behavioural sink:** Of relevance is how such models and disciplines help to recognize and reframe the perception of threat. The need is exemplified by the current psychosis in response to the threat of ebola. How could the insights of such models contribute to recognition of a "discourse sink" enabling a "behavioural sink"?

There is a tendency of politicians and others to "talk up" a condition in an effort to frame it "positively". This may have its place in a disaster situation, but may also serve to prevent people from engaging effectively with any inconvenient truths (**Barbara Ehrenreich**, *Smile Or Die: how positive thinking fooled America and the world*, 2010). On the other hand there has been extensive criticism of doom-mongering and "negative thinking". In desperate situations skills are required to reconcile the cultivation of hope and healthy loss of it (*Being Positive Avoiding Negativity: management challenge of positive vs negative*, 2003). How does the "dis-integral movement" work -- the negative **spiral dynamics**?

The deterioration could be explored in terms of voices "breaking" through loss of credibility -- namely their inability to "sing in tune" in the face of crisis.

**Interaction between roles:** As noted above, one variant might explore the classic case of "12 wise men" and contrast it with that of "12 wise women". Of particular interest is the seldom explored nature of their systemic relationships (*Implication of the 12 Knights in any Strategic Round Table*, 2014). How does such wisdom manifest in conditions of increasing chaos and existential threat? Expressed otherwise, given the focus of such frameworks on stages of more progressive collective insight, how might insight into the reverse process be enhanced? Can each "voice" then be understood as both aggravating the condition of the collectivity -- destabilizing it -- as well as acting to inhibit the downward spiral?

In quest of "lifeboat wisdom", the questions can be explored otherwise through imagining the configuration of an ideal team to engage with the potential existential threat to humanity of arriving extraterrestrials (*Designing a Team for Alien Encounter*, 2000). The latter exploration argued (very tentatively) for a team of 12 reflecting archetypal behavioural styles to benefit from their particular insights. However this did not address the challenges of the necessary self-organizing process, as articulated elsewhere (*Enabling creative response to extraordinary crises*).

How might the more conventional voices of the disciplines respond in a crisis situation? Soldier, doctor, engineer, psychologist, biologist, sociologist, lawyer, economist, meditator, diplomat, priest, educator, environmentalist? How might characteristic personality types respond? Extrovert, introvert, optimist, pessimist, opportunist, manipulator, etc? What might be the games that people played as conditions deteriorated in the light of the insights of the **transactional analysis** of **Eric Berne** (*Games People Play*, 1964)? Are these evident with respect to dialogue regarding global dilemmas?

## Emergence of radical questions challenging conventional assumptions

**Challenging assumptions:** Classic experiments in group dynamics with a small group of people -- on a retreat or in some deliberately challenging therapeutic or learning process -- can be understood as evolving through stages in which ever more radical questions emerge. Emphasis is placed on providing a "safe place" -- an environment to enable this. It would be useful to understand how radical people can then become in interacting with each other -- but especially in the questions that they come to raise for themselves.

In the lifeboat situation, the safety of the space is entirely problematic. It is a place with every possibility of fear and threat. What stages then become evident -- with the tendency for some to "turn against each other"? How do calls for "solidarity", and the need to recognize that "we are all in this together", play out at any stage? How do more challenging questions relate to assumptions about what cannot be called into question at a given stage -- namely what is considered to be "non-negotiable" (as framed by the US with respect to global policy)?

When does the cloak of courtesy and political correctness start to develop "holes" -- eventually to become completely "shredded"? The protective attributes of the "social fabric" then become questionable.

**Holding complementary perspectives:** How many relevant cognitive foci can be held collectively in the process -- whether understood as assumptions, values or categories? The title of this document deliberately recalls that of **George Miller** (*The Magical Number Seven, Plus or Minus Two: some limits on our capacity for processing information* *Psychological Review*, 63, 1956, 2, pp. 81-97). The challenge lies in shifting to plus or minus 12 -- as this may impact on decision-making in the "global" condition of the lifeboat (*Comprehension of Numbers Challenging Global Civilization: number games people play for survival*, 2014). What can no longer be collectively held -- and runs the risk of being "lost" -- with the shift from 7 factors to 12?

At what stage do people stop being squeamish -- with recourse to drinking urine then to be framed as an illustrative example? Somewhat ironically, the reality of such an example on a global scale is demonstrated by the number of times any river is now "drunk" before it reaches the sea -- irrespective of issues regarding sewage disposal. When do some start to be seen by others as "expendable" -- as "extra mouths to feed", reducing what is available to others claiming greater right? At what stage is consideration given to people eating each other as a matter of survival -- as noted with respect to various accounts of cannibalism in the final stages of resource constraint? How does the value of human life shift through increasing recognition of the reality of resource constraints? When does the process of **drawing the "short straw"** become an option in the interests of the collective?

**Challenge avoidance:** Clearly with any larger number people -- much more than 12 (say) -- it could be argued that each is then able to avoid challenging assumptions. The onus is then systematically placed on others, as with **"passing the buck"**. There is then effective indulgence in a game of "assumption tennis", batting any debating point around amongst the larger pool of people -- and across the "net" separating political parties in a parliamentary assembly. Political debate regarding resource issues might well be caricatured as "political tennis" -- through which, ironically, politicians strive to "keep afloat" and ensure their own survival.

Could parliamentarians be said to suffer systematically from psychic numbing? This is consistent with the dramatic framing of **Paul Slovic** -- *"If I look at the mass I will never act"* (*Psychic numbing and genocide, Judgment and Decision Making*, 2007). How is such numbing to be understood in relation to **compassion fatigue** and the increasing indifference to suffering, as discussed separately (*Indifference to the Suffering of Others*, 2013)?

This goes some way to explain why political debates fail to address effectively matters of existential survival -- especially when the boat can be understood as "leaking". The focus of the many think tanks charged with enhancing such debate can be understood as similarly disassociated from existential reality -- through the metaphors by which their role may be framed (*"Tank-thoughts" from "Think-tanks": metaphors constraining development of global governance*, 2003). In the light of the classic outburst of Jack Nicholson in *As Good as It Gets* (1997): *I am drowning here, and you're describing the water* -- they could well be caricatured as "water-describing arenas". Perhaps as hydrodynamicists describing the eddies, the waves and the tides -- rather than lifesavers.

A lifeboat situation is one in which the process of "getting real", and focusing discourse on the existential reality, requires the recognition of **"bullshit"** (as it is often described). This calls for skills in "bullfighting" to engage with discourse that is "not fit for purpose" (*Viable*

*Global Governance through Bullfighting*, 2009). How can the necessities of survival in a lifeboat situation be usefully envisaged in terms of such bullfighting?

**Engaging with increasing levels of threat:** Much is made of categories of threat level as a means of framing preparedness response. The issue here is whether names can be put on the stages of such survival discourse. To what stage does the famous assertion of George W. Bush with respect to 9/11 -- namely that the "gloves are now off" (Toby Harnden, *Gloves are off as Bush scraps ban on assassination*, *The Telegraph*, 22 October 2001)?

How many "layers" of "gloves" separate superficial discussion of existential issues from the ultimate realities of a lifeboat situation? Clearly assassination and torture are but steps on the way -- as with cannibalism. What other steps might be envisaged globally -- selective genocide, whether deliberate or through (deliberate) negligence?

As an illustration of the language with respect to threat levels, the [US Homeland Security Advisory System](#) distinguishes **Severe (Red)**, **High (Orange)**, **Elevated (Yellow)**, and **Guarded (Blue)** and **Low (Green)**. Those of the UK are distinguished as follows.

UK Threat Levels		
Threat level		Response
Critical	An attack is expected imminently.	Maximum protective security measures to meet specific threats and to minimise vulnerability and risk. Critical may also be used if a nuclear attack is expected.
Severe	An attack is highly likely.	Additional and sustainable protective security measures reflecting the broad nature of the threat combined with specific business and geographical vulnerabilities and judgements on acceptable risk.
Substantial	An attack is a strong possibility.	
Moderate	An attack is possible, but not likely.	Routine protective security measures appropriate to the business concerned.

The merit of the advocated experiment is to enable recognition of the assumptions constraining debate on resource limitations in a global society. **At what stage are what "gloves" to be taken "off"?** Assumptions are too readily and optimistically made that:

- resource constraint is an illusion -- readily challenged in a lifeboat situation
- human ingenuity will triumph -- of only questionable success in a lifeboat situation
- divine intervention has been prophesied and may be depended upon -- questionably relevant in a lifeboat situation

**Management of failure?** Engagement with threat could however also be reframed in terms of engagement with failure. Management is too readily focused on improving a situation which may be primarily characterized by increasing deterioration and desperation. Curiously, but appropriately, the "failure to thrive" has been primarily addressed as a health problem (C. Wright, *Identification and management of failure to thrive: a community perspective*, *Archives of Diseases of Childhood*, 2000). The language of avoidance with respect to engineering failure is also of relevance, as in that of John D. Goodlette (*The Management of Failure*, *Engineering Management International*, 1984):

One of the most important actions of the development engineering manager is to establish an environment that test failure cannot be accepted as a way of life. He must insist that there is always a physical cause for any failure. He must encourage the development organization to penetrate beyond a plausible cause which so often obscures the real basis for the failure.

Of greater relevance is that of Margaret L. McLaughlin et al. (*The Management of Failure Events: some contextual determinants of accounting behavior*, *Human Communication Research*, 1983):

This study sought to examine the impact upon actors' selection of strategies to manage failure events of several contextual factors: characteristics of the reproacher/actor relationship, communicative goal-orientation of the actors, severity of the failure event, character of the reproach for the failure event, and the actors' degree of expressed guilt. Results indicated that actors elected to make no response when they felt less guilt, when there was no overt reproach, when their instrumental goal (securing honoring) was unimportant, and when the failure event was a severe offense. Concessions were used when the reproachers said nothing or projected a concession, when the offense was severe, when the actors' instrumental goal was important, and when they felt guilty. Actors chose to justify their behavior in high intimate situations where their instrumental goal was less important. Refusal to account was most likely to occur when reproachers used an aggravating reproach form, when actors felt unjustly accused, and when reproachers were dominant. Excuses were fairly uniformly distributed across all contexts.

Of further relevance is a degree of recognition of the challenge of "managing failure", including the "fear of failure", whether or not the insights are considered in relation to the desperate conditions envisaged in the proposed experiment:

- Dan Picket: *Don't Just Embrace Failure -- Learn How to Manage It* (*Entrepreneur*, 19 May 2014)
- *Managing failure is the key to success* (*Drug Baron*, 24 September 2012)
- *Business is About Managing Failure*
- James Larsen: *Managing Failure* (*Business Psychology*, Article 346)
- Jaydeep Balakrishnan, et al.: *A Strategic Framework for Managing Failure in JIT Supply Chains* (*International Journal of Information Systems and Supply Chain Management*, 1, 2008, 4)

- Claudia Tobler: *Managing Failure in the New Global Economy* (*Boston College International and Comparative Law Review*, 22, 1999, 383)
- Dean Shepherd, et al.: *Moving Forward from Project Failure: negative emotions, affective commitment, and learning from experience* (*Academy of Management Journal*, 54, 2011, 6, pp. 1229-1259)
- Yehuda Kleiner, et al.: *Modeling deterioration and managing failure risk of buried critical infrastructure* (National Research Council Canada, #NRCC-49705, 2006; *NATO Science for Peace and Security Series, Computational Models of Risks to Infrastructure*)

**Learning from life-threatening contexts:** Aside from what has been widely explored in castaway dramas, the challenge to assumptions is evident in:

- survival training for military purposes, namely what needs to be considered as the severity of constraints becomes apparent. In the extreme case, is a "us or them" distinction to be made between using one's enemy as a source of food and using "one of us"?
- prison and concentration camp conditions, especially when characterized by high levels of violence from which people have to develop protective strategies.
- refugee camps, especially when resources become extremely scarce and/or are very unequally distributed

In camp conditions a notable characteristic is the process whereby "kindness" and "protection" (and access to food resources) become negotiable -- potentially in exchange for some form of "prostitution". In the lifeboat thought experiment involving both sexes, this offers a strategy to any nubile female -- with the probability of producing children. The consequences are evident in terms of calls on extra resources during maternity, and subsequently due to the challenge of the "extra mouth". How would the original 12 handle such unchecked increase in their number? The question relates to that of expendability -- and how it has been reportedly handled by tribal groups in dealing with the elderly and infirm.

Of some relevance are the learnings to be derived from conceptual confusion, as figures in the summary by Graham Leicester and Maureen O'Hara (*Ten Things to Do in a Conceptual Emergency*, 2009). This describes the condition in which the models and concepts conventionally used to grasp and make sense of the world are losing their power. Responsible and intelligent action becomes more difficult as a result. Although not framed in terms of the lifeboat context considered here, it is reminder of earlier literature regarding such confusion which might be adapted to that context (E. F. Schumacher, *A Guide for the Perplexed*, 1977), notably the work of Charles Handy (*The Age of Unreason*, 1989; *Beyond Certainty*, 1995). The challenge on the liferaft is how to survive underconditions of incomprehension, as separately explored (*Living with Incomprehension and Uncertainty: re-cognizing the varieties of non-comprehension and misunderstanding*, 2012).

The question with respect to the larger context, as addressed by Karen A. Cerulo (*Never Saw It Coming: cultural challenges to envisioning the worst*, 2006), merits adaptation to the lifeboat context in which people may well function like the oft-cited rabbits on the road at night -- faced with blazing headlights. What kind of questions would people consider asking? What questions would they be obliged to ask as the problem worsened? What questions are they not asking now which they will be obliged to ask in the future? Why are they not asking them now? Such questions are of course relevant to global dilemmas, as with those addressed in a recent compilation regarding ignorance (Robert N. Proctor and Londa Schiebinger (*Agnotology: the making and unmaking of ignorance*, 2008). What don't we know, and why don't we know it? What keeps ignorance alive, or allows it to be used as a political instrument?

## Guidelines to group survival discourse from fact and fiction

There is therefore a strong argument for exploring case studies -- especially including fiction -- of small groups faced with diminishing resources and multiplying numbers. What are the stages of discourse that they go through in addressing their most basic needs? What questions come up at what stage as the psychosocial fabric decays? One illustrative example is provided by the much-cited description of a group of boys marooned on an island (*William Golding, Lord of the Flies*, 1954).

As noted above, the study of Lewis F. Petrinovich (*The Cannibal Within*, 2000) points to a variety of accounts of shipwrecks and plane crashes which have left small groups marooned as castaways with limited resources -- stranded under conditions leading eventually to cannibalism. Typically the records offer little insight into the deteriorating quality of dialogue and the reframing of personal relationships. How do people come to the point of eyeing each other as a potential resource -- for nourishment?

Whether as fact or fiction, there are indeed many indications in the literature to the "evolution" of dialogue under threat. One indicative example of reframing conditions took the form of satire in the much-cited early work of Jonathan Swift (*A Modest Proposal for Preventing the Children of Poor People From Being a Burthen to Their Parents or Country, and for Making Them Beneficial to the Publick*, 1729). There are reports of a process involving the elderly in remote communities leaving that community to die -- a form of self-sacrifice to reduce the number of mouths to feed. The extent to which peer group pressure may encourage this could of course vary. Related processes occur with respect to the infirm. Science fiction readily envisages similar scenarios of survival following global disaster.

Clearly records of life in concentration camps, gulags and prisons offer patterns to be explored. As indicated above, any siege offers another source. This is of some relevance, given current efforts to impose sanctions on countries considered to be acting unacceptably. The question is how dialogue shifts as sanctions "bite" and resources become scarcer. There is some irony to the sense in which the current global civilization may end up effectively sanctioning itself and be faced with the consequence of such sanctions "biting".

Another approach to the progressive "deterioration" in dialogue, if that is how it is to be understood, would be through the metaphors that may be successively evoked in the course of the process as a means of reframing it (*Metaphors To Die By: correspondences between a collapsing civilization, culture or group, and a dying person*, 2013). Again indication of such metaphors could be derived from fiction.

## Spaceship Earth, lifeboat, liferaft and lifeplan as complex associations

Coincidentally, at the time of writing, there have been two major US space rocket crashes in the same week -- matched however by two successful orbital flights by Russian and Chinese initiatives in the same period. Given anticipation of travel to Mars, and whether as fact or fiction, there is clearly a case for examining the procedures envisaged if astronauts become marooned in space, without the possibility of replenishing their vital resources. Had it not been for the Russian success, how would those on the [International Space Station](#) have survived?

Is there some prospect of the world being witness, through the media, to the drama of deteriorating resource conditions on a spacecraft unable to be resupplied or to make an emergency landing? Has NASA envisaged "short straw", or other procedures, through which the reality of the food situation might need to be handled? Subsequent to its recent crash, what would the world learn from such a resource tragedy, if it were to occur on an orbital flight of [Virgin Galactic](#) with a small group of celebrities? Would this serve as a powerful metaphor for the future resource challenges of global civilization? Is there some probability of an "unspecified anomaly", as with the initial explanation of the Virgin Galactic crash?

Comparisons have long been made between spacecraft and the Earth. As [Spaceship Earth](#) the term has been used to express concern over the use of limited resources available and the need for the "crew" to make appropriate use of them. Notable use of the term has been made by [Barbara Ward](#) (*Spaceship Earth*, 1966; *Survival of Spaceship Earth*, 1972) and by [Buckminster Fuller](#) (*Operating Manual for Spaceship Earth*, 1968). Given the resource constraints, such a worldview can then be usefully explored in terms of experience on a lifeboat or a liferaft -- especially with respect to the problematic evolution of dialogue as these become ever more evident and more dramatic sacrifices need to be made.

The approach of Fuller is of particular relevance in further clarifying implications of global understanding of survival capacity in a vessel in space, from a lifeboat on the sea, or from a liferaft. It was Fuller who articulated the relationship between the planar and the spherical, most evidently in the design of geodesic domes -- themed imaginatively at the Walt Disney World [Epcot Center](#) as Spaceship Earth. He expressed this in terms of *Synergetics: Explorations in the Geometry of Thinking* (1976). Despite the title, this unfortunately did not bring into focus the contrast between "Flat Earth" thinking based on the planar and that on the global -- as exemplified by the widespread current focus on "global plans" (*Irresponsible Dependence on a Flat Earth Mentality -- in response to global governance challenges*, 2008).

References to "plan" and "manual" are too readily associated with the inadequacy of a worldview on a life "raft" -- as with any associated "raft of proposals" (*EU unveils raft of proposals to combat poverty*, *EurActiv*, 17 December 2010). What is the spherical geometry appropriate to the thinking capacity and discourse enabling survival on a spaceship, as discussed separately (*Geometry of Thinking for Sustainable Global Governance: cognitive implication of synergetics*, 2009). Should thinking with respect to formulating a personal "life plan" itself be reframed in more spherical "global" terms?

There is some irony to the credibility cultivated by a [NASA technocratic vision of space colonization](#) as offering an alternative form of lifeboat -- a means of escaping a doomed Earth. As argued by [George Monbiot](#) in a commentary on the movie *Interstellar* (2014):

If space colonisation is impossible today, when Richard Branson, for all his billions, cannot even propel people safely past the atmosphere, how will it look in a world that has fallen so far into disaster that leaving it for a lifeless, airless lump of rock would be perceived as a good option? We'd be lucky in these circumstances to possess the wherewithal to make bricks. Only by understanding this as a religious impulse can we avoid the conclusion that those who gleefully await this future are insane. Just as it is easier to pray for life after death than it is to confront oppression, this fantasy permits us to escape the complexities of life of Earth for a starlit wonderland beyond politics. In *Interstellar*, as in many other versions of the story, space is heaven, overseen by a benign Technology, peopled by delivering angels with oxygen tanks. Space colonisation is an extreme version of a common belief: that it is easier to adapt to our problems than to solve them. (*Interstellar: magnificent film, insane fantasy*, *The Guardian*, 12 November 2014).

Relevance to lifeboat design of *The Fail-Safe Theorem*:

***When a Fail-Safe system fails, it fails by failing to fail safe.***

as articulated by [John Gall](#) in *Systemantics* (retitled in successive editions; see [commentary](#))

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