



# laetus in praesens

Alternative view of segmented documents via Kairos

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## COVID-19 as a Memetic Disease -- an epidemic of panic

### Learning from terrorism, communism, fascism, and evil, as pandemics of the past

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#### Introduction

Definitions and conceptual gerrymandering

Benign memplexes, thought contagion and memetic pandemics

Neglected traditional recognitions of memetic disease

Susceptibility and vulnerability to memetic disease -- gullibility?

Beneficiaries of memetic disease and authoritarianism

Comparable examples of memetic pandemics?

COVID-19 as a memetic epidemic -- a pandemic

Parallels in the response to a memetic pandemic -- including COVID-19?

Configuration of drivers of humanity's potential memetic pandemics?

References

## Introduction

There is clearly no denying that COVID-19 is a disease which is causing world wide fatalities. Less evident, and seldom explored as such, is the extent to which it is a memetic disease -- and the nature of the fatalities with which that is associated. So framed, it is also useful to derive insights from pandemics of the past from a memetic perspective.

The focus on COVID-19 as a memetic disease is justified by the considerable confusion with which it has been associated and continues to engender. Without referring to its memetic consequences as such, this can be inferred from the assertion of the Secretary-General of the United Nations (*Hatred going viral in 'dangerous epidemic of misinformation' during COVID-19 pandemics*, *UN News*, 14 April 2020; *Global report: virus has unleashed a 'tsunami of hate' across world, says UN chief*, *The Guardian*, 8 May 2020).

The question here is whether any such "epidemic of misinformation" could be understood to have been associated with the focus on terrorism, radicalism, communism, fascism, evil, and the like. The exploration could of course be extended to other preoccupations which have aroused widespread concern. More delicate is the question regarding the extent to which concern at the excesses of religion, of science, of technology, of ideology, or of any discipline, merit recognition as symptomatic of a memetic disease. Common to the reaction to their perception as a threat is the cultivation of a **culture of fear** -- only too evident in the case of COVID-19.

The memetic focus merits consideration in the light of the recognized transition from wartime propaganda to information warfare -- and more recently to **memetic warfare** (Tom Ascott, *How memes are becoming the new frontier of information warfare*, *The Strategist: Australian Strategic Policy Institute*, 19 February 2020; *It's Time to Embrace Memetic Warfare*, *Defence Strategic Communications of the NATO Strategic Communications Centre of Excellence*, 2015; *Missiles, Missives, Missions and Memetic Warfare: navigation of strategic interfaces in multidimensional knowledge space*. 2001).

Reference to memetic follows from the argument of **Richard Dawkins** (1976) extending the understanding of gene (and genetics) to meme (and memetics, by implication). The role of genetic engineering in **biological warfare** is well-recognized, and it has been alleged that COVID-19 is one consequence (Jan van Aken, et al, *Genetic engineering and biological weapons*, *European Molecular Biology Organization Reports*, 4, 2003, June). The possibility of **memetic engineering** has also been recognized, notably as exemplified in debate on the techniques employed in connection with the **Facebook-Cambridge Analytica data scandal**.

The argument is especially justified given the manner in which the response to COVID-19 has been widely framed by the world's leaders as a war -- and the need therefore to place countries on a wartime footing, evoking the emergency provisions with which that is associated. As with the **global war on terrorism**, other social crises have been similarly framed (*Review of the Range of Virtual Wars: strategic comparison with the global war against terrorism*, 2005).

Rather than continuing to cultivate the possibility that COVID-19 was engineered as a **biological weapon**, there is therefore a case for exploring whether it has been engineered and employed as a **memetic weapon** -- of which the narrative regarding its biological

weaponisation is ironically an example.

As is occasionally repeated, truth is the first fatality of warfare (Gary G. Kohls, *The First Casualty of War is the Truth*, *Global Research*, 9 May 2014; Jackson Diehl, *Truth is the first casualty in war, including this one*, *Anchorage Daily News*, 12 April 2020). How truth is itself to be understood in memetic terms is a matter for the future (Jay Owens, *The Age of Post-Authenticity and the Ironic Truths of Meme Culture*, *Medium*, 12 April 2018).

## Definitions and conceptual gerrymandering

What is a "disease"? The medical professions would claim to be very clear on the matter and the various frameworks through which it may be defined, most obviously through the *International Classification of Diseases (ICD)* produced by the World Health Organization. With respect to those with a psychological dimension, these are carefully embodied in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* published by the *American Psychiatric Association* (APA).

The difficulty with that framing is not what it includes but rather what perceived problems are excluded (Richard Smith, *In search of "non-disease"*, *British Medical Journal*, 324, 2002; J. M. S. Pearce, *Naming Diseases*, *Hektoen International: journal of medical humanities*, 30 January 2017). For the psychiatrist *Thomas Szasz*, it does not make sense to classify psychological problems as diseases or illnesses, and that speaking of "mental illness" involves a logical or conceptual error (*The Myth of Mental Illness: Foundations of a Theory of Personal Conduct*, 1961).

One response to this difficulty is evident in the periodic adjustment in successive editions of the *DSM*. This process raises questions as to why a disease that is suddenly included had previously been excluded. This frames any concern with forms of disease which are not currently included but which will in future be deemed to be a disease on the basis of future insight.

**Disease versus Vectors of disease?** In epidemiology, a *disease vector* is any agent which carries and transmits an infectious pathogen into another living organism; most agents regarded as vectors are organisms, such as intermediate parasites or microbes, but it could be an inanimate medium of infection such as dust particles. COVID-19 could thus be recognized as a vector of disease rather than a disease in its own right. Arguably it is no more a cause of fatality than a bullet -- which may enable a variety of forms of failure of the human body, as with any poisonous chemical.

Discussion of COVID-19 readily frames it as a disease and a cause of major fatality. Whilst this may be a convenience for communication purposes, it obscures the extent to which other "vectors" may be equally fatal -- as with toxins, radiation or bullets.

**Incidence of "disease"?** There has been extensive discussion of the fatalities associated with COVID-19. A notable feature has been the charges of under-reporting, over-reporting, and denials of either. It has been variously noted that reporting is governed by different regulations in different countries, variously interpreted according to whether there is a perceived need to boost the numbers or reduce them. Models are assiduously built on such data, with little ability to confirm the validity of the numbers deemed to relate to COVID-19. Fatalities unrelated to COVID-19 may well be included by inference. Fatalities related to COVID-19 may go undetected or be neglected.

With respect to COVID-19 itself, there are emerging indications of transmission to domestic animals. These would clearly not be included in any data collection process. The latter helps to frame the nature of the boundary between diseases affecting humans and those affecting animals or plants -- by whatever vectors they may be enabled. Ironically this occurs in a period in which there has been extensive recognition (but not by the medical profession or by epidemiologists) of the rate of extinction of non-human life. .

**Humans as vectors of disease?** The *Holocene extinction*, otherwise referred to as the sixth mass extinction or Anthropocene extinction, is an ongoing extinction event of species during the present Holocene epoch (with the more recent time sometimes called Anthropocene) as a result of human activity. The current rate of extinction of species is estimated at 100 to 1,000 times higher than natural background rates. The 2019 *Global Assessment Report on Biodiversity and Ecosystem Services*, published by the *United Nations' Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, posits that roughly one million species of plants and animals face extinction within decades as the result of human actions. The vast majority of these extinctions are thought to be undocumented, as the species are undiscovered at the time of their extinction,

A 2018 report indicated that the *phylogenetic diversity* of 300 mammalian species erased during the human era since the Late Pleistocene would require 5 to 7 million years to recover. In 2016, scientists reported that 1 trillion species are estimated to be on Earth currently with only one thousandth of one percent described -- and with little recognition of the dependence of humans on their existence.

This perspective is meaningless or irrelevant to the health expertise consulted in relation to COVID-19. The World Health Organization is in no way concerned with the such fatalities -- which fall under the mandate of other agencies, if at all. There is no "International Classification of Animal Diseases" -- although there may indeed be classifications of relevance to those species which are of direct concern to animal husbandry and the veterinary sciences, as these relate to animals on which humans are dependent. A similar point could be made with respect to an "International Classification of Plant Diseases".

Understanding of the diseases fatal to a million species and *loss of biodiversity* is therefore framed through generalities of habitat loss and degradation, climate change, pollution, over-exploitation, armed conflict, an invasive alien species -- variously enabled by humans. However there is little effort to recognize the extent to which *ecological stress* constitutes an "ecosystemic disease". The point is only partially addressed by the arguments of Peter Rabinovitz, et al (*Links Among Human Health, Animal Health, and Ecosystem Health*, *Annual Review of Public Health*, 34, 2013):

Because animals and humans have shared risk to health from changing environments, it seems logical to expand the perspective of public health beyond a single species to detect and manage emerging public health threats. Mitigating the effects of climate

change, emerging pathogens, toxicant releases, and changes in the built environment requires a retooling of global public health resources and capabilities across multiple species. Furthermore, human and animal health professionals must overcome specific barriers to interprofessional collaboration to implement needed health strategies.

There is considerable irony to the extent to which the desperate search for a COVID-19 vaccine necessarily involves [testing on animals](#) with little concern for the number destroyed in the process. It is estimated that the annual use of vertebrate animals -- from zebrafish to non-human primates -- ranges from tens to more than 100 million. There is of course little concern with any analogue to "mental disorders" in animals or plants -- most obviously the forms of stress highlighted in the transportation of live animals.

**COVID-19 as a mental disease?** As argued above, COVID-19 might be said to be "not strictly a disease" since, as an "infectious disease", it enables fatalities which can more properly be seen as due to more common diseases -- and hence, in part, the confusion in statistical reporting ([Coronavirus disease 2019, Wikipedia](#)). Nor is the virus as such a "mental disease", although it evokes responses which are readily recognized as being of that nature -- hence the value of exploring its memetic role.

Currently there is concern that COVID-19, and the response to it by authorities (lockdown, etc) is provoking "mental health" issues. However these are to be understood (Felice Iasevoli, [COVID-19 Pandemic Burden in Severe Mental Disease Patients \(PsyCOVID\), Clinical Trials](#), 22 April 2020; [Mental health and psychosocial considerations during the COVID-19 outbreak, World Health Organization](#), 18 March 2020; Alison Rourke, [Global report: WHO says Covid-19 'may never go away' and warns of mental health crisis, The Guardian](#), 14 May 2020). There is however a degree of confusion in the WHO recommendation:

Do not refer to people with the disease as "COVID-19 cases", "victims" "COVID-19 families" or "the diseased". They are "people who have COVID-19", "people who are being treated for COVID-19", or "people who are recovering from COVID-19", and after recovering from COVID-19 their life will go on with their jobs, families and loved ones. It is important to separate a person from having an identity defined by COVID-19, in order to reduce stigma.

How many would be prepared to argue that their "life has been destroyed" by COVID-19, even though they have survived physically?

"APA"? The American Psychological Association (APA) has been the focus of critical attention in relation to its complicity in the "enhanced interrogation" to which those detained without charge at the Guantanamo Detention facility have been subject ([New APA policy bans psychologist participation in national security interrogations, American Psychological Association](#), 46, 2015, 8; Spencer Ackerman, [Guantánamo Bay psychologists to remain despite APA torture fallout, The Guardian](#), 16 July 2015; Benedict Carey, [Psychologists' Group Maintains Ban on Work at Military Detention Facilities, The New York Times](#), 9 August 2018).

But the objectivity of the associated American Psychiatric Association (APA) at this time, **as producers of the DSM**, has unfortunately been called into question (Paul Summergrad, et al, [Ethics, Interrogation, and the American Psychiatric Association, American Journal of Psychiatry](#), 172, 2015, 8). For Abraham L Halpern, et al:

After revelations of participation by psychiatrists and psychologists in interrogation of prisoners at Guantánamo Bay and Central Intelligence Agency secret detention centers, the American Psychiatric Association and the American Psychological Association adopted Position Statements absolutely prohibiting their members from participating in torture under any and all circumstances, and, to a limited degree, forbidding involvement in interrogations. (["Enhanced" interrogation of detainees: do psychologists and psychiatrists participate? Philosophy, Ethics, and Humanities in Medicine](#), 3, 2008, 21)

**Reframing remedial response:** The definition of disease is "supervised" by vested interests who claim the highest authority -- currently evident in their role with respect to COVID-19 and their commitment to ensuring the widespread use of a vaccine.

Missing from any consideration in this regard is the role of homeopathic remedies and the manner in which they are understood to be in response to conditions of "dis-ease" framed otherwise. The conditions and the remedies are typically subject to the strongest condemnation from a conventional allopathic perspective committed to use of a range of commercial pharmaceutical products of questionable cost and efficacy.

As a global crisis, the COVID-19 pandemic is embedded in the dynamic between costly commercial remedies and those otherwise proposed. There is indeed the possibility to focus on the former as is the current commitment. Rather than any focus on the possibilities of the latter (as variously proposed). However, the point to be stressed is the sense in which, as a memetic disease, COVID-19 merits responses which may derive as much from the thinking of a homeopathic approach as from that of an allopathic approach, as argued separately ([Remedies to Global Crisis: "Allopathic" or "Homeopathic"? Metaphorical complementarity of "conventional" and "alternative" models](#), 2009).

**Conceptual gerrymandering:** These points highlight the extent to which definition tends to become a process of conceptual gerrymandering to the advantage of those who engage in the process -- to the point of suggesting that such gerrymandering could itself be considered a disease.

The collection of data on COVID-19 has highlighted a number of definitional concerns. It has been noted that physicians have variously interpreted fatalities as a consequence of COVID-19 -- including or excluding cases in support of particular agendas requiring that statistics be inflated or reduced. There are multiple reports of over-reporting and under-reporting -- matched by denials or justifications in each case. The truth of the matter may never be known -- with any claims to that effect being subject to criticism.

The consequence of such gerrymandering, whether deliberate or unintentional, is a degree of confusion with which the debate on

emergence of a "post-truth" epoch has been associated. This merits recognition as a memetic disease to which many fall victim -- as "fatalities" with consequences as yet to be recognized. Are the catastrophic effects on identity and self-esteem of any form of brainwashing to be understood as "fatal"?

**Reframing disease:** How might "disease" come to be reframed -- as history has remarkably demonstrated with respect to developments from centuries past? How many diseases were recognized at what period of history? How many will the future recognize?

These questions are addressed separately (*Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures*, 2008; *Emerging Memetic Singularity in the Global Knowledge Society*, 2009).

Will complicity and recourse to deniable culpability come to be understood as a memetic disease? What of the deliberate cultivation of fear or panic, whether in individuals or as a feature of memetic warfare?

Potential candidates for recognition include what might be loosely framed as **lifestyle diseases**, or the various forms of excess which are engendering problematic conditions in humans -- and by extension in animals and plants (*Cognitive Implications of Lifestyle Diseases of Rich and Poor: transforming personal entanglement with the natural environment*, 2010). If substance abuse is to be considered a disease -- at what point does alcohol consumption pass from being a recreation to what some would condemn as a disease?

From a planetary perspective -- in terms of the health of the planet -- when is a problem not a disease, if only a "dis-ease"? Which forms of illusion or delusion merit recognition in such terms? More provocative is the sense in which any human occupation may eventually come to be associated with a form of memetic disease (Mukesh Sharma, et al, *Occupational lifestyle diseases: an emerging issue*, *Indian Journal of Occupational and Environmental Medicine*, 13, 2009, 3). Could the human condition be usefully recognized as essentially diseased?

Such arguments frame the concerns evoked in debate regarding the problematic status of religion or science, in the light of their respective critics. Clearly some would frame particular ideologies as a form of disease, meriting every effort at its eradication (*Eradication as the Strategic Final Solution of the 21st Century?* 2014). This then frames the question as to whether disagreement with what is deemed to be right by some effectively constitutes a disease from their perspective -- justifying criminalisation of disagreement as part of the eradication process.

**Quantum reality and future reframing of disease?** The nature of physical reality, so assiduously explored by physics through quantum mechanics, frames the domain within which physical disease is evident. The complex conceptual subtlety of those insights has engendered considerations with respect to **quantum mind**, quantum consciousness, **quantum cognition**, and **quantum psychology**, which could variously be held to frame the context within which memetic and mental disease becomes evident -- in any species.

This evolving perspective is a challenge to any simplistic framing of disease and the categories by which its manifestations are distinguished or considered irrelevant (J. I. Jacobson, *A quantum theory of disease, including cancer and aging*, *Integrative Molecular Medicine Journal*, 3, 2016). Especially intriguing is that physics has helped to clarify the extent to which information is fundamental. It has been suggested that **quantum information** and systems could provide a powerful new approach to questions in fundamental physics (Robert Lawrence Kuhn, *Forget Space-Time: information may create the cosmos*, *Space.com*, 23 May 2015; *Is Information Fundamental? Closer to Truth; Information or Matter or Energy*, *Physics Stack Exchnge*). How else to engage with "fake news"?

There is a case for exploring information analogues to the physical diseases so readily distinguished (*Classification of information diseases (and memetic diseases)*, 2008). That perspective connects any biological focus (with any genetic implications) to any psychological focus (with any memetic implications). In that sense the boundaries (or categories) distinguishing the diseases of humans from the diseases of animals or plants can be usefully reframed in information terms -- as with any form of social pathology. "Problems" of any kind merit reframing in information terms.

Clearly there has yet been little motivation to focus on such generalization in information terms, or on what it might imply for the generalization of disease. One pioneering effort is that of **Alexander Wendt** (*Quantum Mind and Social Science: unifying physical and social ontology*, 2015) -- necessarily disparaged from conventional perspectives, and which are themselves constrained by the issues in question.

## Benign memplexes, thought contagion and memetic pandemics

**Germ theory of thought:** A succinct account of the challenging processes of "thought contagion" is provided from a Himalayan perspective by **George van Driem** (*Languages of the Himalayas: an ethnolinguistic handbook of the greater Himalayan region*, 2001):

A germ theory of thought contagion must account for the means by which beliefs spread and ensconce themselves in human minds and render these minds immune or, at least, resistant to infection by competing ideas. As a survival strategy, meme packages like Christianity have changed their emphasis and even their tenets to adapt to changing times in the course of their history. Certain memes propagate by latching onto other memes, such as absurd religious doctrines which hitch a ride on attractive altruism or natural morality memes. Meme packages adapt to prevailing fashion and elicit facile rationalisation by the zealous host. Once religionists buy into a certain mental software package, their egos take a vested stake in its propagation because one's identity is tied to the beliefs one holds. (p. 106)

Van Driem notes that with respect to the truth value of the meme:

The success of a **memplex** is to an alarmingly large extent independent of the truth value of the constituent idea, and a school of thought can spread even if some of its constituent ideas are contradictory. In fact, the incorporation of paradoxes into religion,

such as Milarāpa's denunciation of the Buddha as a liar, zen koans and other apparent or real contradictions can even enhance the immunity of a memplex to falsification and its resilience in the face of analytical deconstruction. (p. 106)

**Memetic epidemics and memetic pandemics:** A review by Robert Aunger of a seminal book on memes ([Susan Blackmore, \*The Meme Machine\*, 1999](#)) remarks with respect to memes as self-replicating units of cultural information:

The term is bandied about in popular magazines, and hundreds of Web sites discuss the concept: memes are particularly popular among cyberfolk of all flavors. Memetics, or the study of memes, has even become the subject of the obligatory academic journal. Indeed, all of the claptrap surrounding a growing academic industry is in place. It's a bona fide **memetic epidemic!** The self-referential cultural history of the meme meme is the very model of memetic development. ([The Meme Machine, The Sciences, 39, 1999, 5, emphasis added](#))

A useful distinction might be made in this context between "epidemic", with its typical emphasis on biological disease, and "**pandemic**" - **- provocatively to be recognized as an "epidemic of panic"**. From this perspective, what is the degree of panic that causes an epidemic to be reframed as a pandemic?

As described by Richard Dawkins:

The advertising industry is professionally dedicated to the science -- or maybe an art -- of launching **memetic epidemics** and nurturing their spread. Christianity itself was spread by the equivalents of such techniques, initially by St Paul and later by priests and missionaries who systematically set out to increase the numbers of converts in what sometimes turned out to be exponential growth. Could we achieve exponential amplification of the numbers of super nice people? ([Science in the Soul: Selected Writings of a Passionate Rationalist, 2017, emphasis added](#))

Cultural epidemics have been equated with memetic epidemics. It has been noted that apparent vote-exchange ("logrolling") in the Eurovision Song Contest has been variously interpreted as a manifestation of political attitudes within Europe, a reflection of regional tastes in pop music, or a social (memetic) epidemic (Derek Gatherer, [Voting in Eurovision: shared tastes or cultural epidemic? Empirical Text and Culture Research, 3, 2007](#); [Comparison of Eurovision Song Contest Simulation with Actual Results Reveals Shifting Patterns of Collusive Voting Alliances, Journal of Artificial Societies and Social Simulation, 9, 2006, 2](#)). This could now be understood in terms of patterns of trending in social media more generally.

Also noted by van Driem:

Religions and belief systems like astrology, Freudian psychoanalysis and generative linguistics are not the only type of memetic construct. Some memetic fashions cannot even be qualified as schools of thought. Whereas Christianity and Marxist political ideology, which have both spread epidemically throughout Nepal since the revolution of 1990, are belief systems, karate is a martial art which spread to Nepal from Italy a few decades earlier.... Phenomena such as the karate and cricket subcultures are also coadapted meme complexes. Such benign memplexes contrast sharply with **memetic pandemics** such as those which swept through German and Austria in the late 1930s and '40 and through Iran in the late 1970s and '80s. (p. 106) [*emphasis added*]

For Tim Tyler ([Memetics: Memes and the Science of Cultural Evolution, 2011](#)):

Examples of memetic pandemics include: smoking, obesity, pornography, soap operas, computer games, and pornography (p. 85)

There are a surprising number of web references to "zombies" ([Preponderance of references to the eradication of zombies, 2014](#)). It is therefore not surprising that references to "memetic pandemic" are a feature of blogger culture, as in the following case:

Memetic pandemics have overtaken all of mainstream society. The internet has allowed for pathogenic memes to spread uncontrollably, the ones that rustle our jimmies and get our attention winning out. Welcome to the real zombie apocalypse, where the viral infection is in our minds and making us act positively deranged. ([The Zombie Apocalypse Now, 16 May 2017](#))

For another anonymous blogger

The memetic singularity is imminent, the point at which cultural change becomes self-reinforcing and explosive. Recursive self-improvement in human informational networks, i.e. societies will cause an explosion of collective superintelligence. Unlike a technological singularity which requires artificial superintelligence, the means for a memetic singularity already exists: the memetic hyper-accelerator of the internet. The explosion of spectacle of the present, the near-instant propagation of memetic pandemics, and omnipresent politics is the result of the mechanics of capital shitting itself in the face of accelerating change. (18 October 2018)

**Social epidemics:** The argument here is that the current focus on COVID-19 obscures the degree to which it can also be explored as a

social epidemic -- a term more readily associated with a memetic epidemic. A social epidemic is the spread of ideas, messages, behaviours, and products through a population in the same way that viruses spread, as popularized by [Malcolm Gladwell](#) (*The Tipping Point: how little things can make a big difference*, Little, Brown, 2000).

Rather than any sense of disease, there the focus is with respect to engendering such epidemics in order to promote change of some kind, as in the number of references to it (Kellie Wardman O'Reilly, *Encouraging the "Epidemic" Spread of Change*, *The Systems Thinker*, 2018; Joshua Levine Grate, *Spreading Positive Social Epidemics*, *HuffPost*, 30 November 2009). The process is readily recognized on social media, especially when governments grapple with their role in spreading information and shaping public opinion during a health crisis (Mike Ives, *When Epidemics Go Viral*, *The Atlantic*, 18 October 2016 A perspective potentially applicable to COVID-19, is also offered (Evan Stark, *The Epidemic as a Social Event*, *International Journal of Health Services*, 1 October 1977).

**Social contagion:** An approach more closely related to understandings of memetic disease is that of [bevioural contagion](#) and social contagion theory (Daisy Benson et al, *Social Contagion Theory and Information Literacy Dissemination: A Theoretical Model*, *ACRL Thirteenth National Conference*, 2007; Nicholas A. Christakis, et al, *Social Contagion Theory: examining dynamic social networks and human behavior*, *Statistics in Medical Journals*, 32, 2013, 4). Citing the latter, a critical perspective is offered by David Merritt Johns (*Doubts About the Social Plague Stir in the Human Superorganism*, *Slate*, 7 April 2010). A focal point, combining perspectives of relevance to this argument is the [Network Contagion Research Institute](#) (Savvas Zannettou, et al, *Weaponized Information Outbreak: a case study on COVID-19, bioweapon myths, and the Asian Conspiracy meme*).

**"Infodemics":** Framing the memetic challenge more specifically is debate on this new "meme" (John Zarocostas, *How to fight an infodemic*, *The Lancet*, 29 February 2020; António Guterres, *UN tackles 'infodemic' of misinformation and cybercrime in COVID-19 crisis*, *United Nations*, 28 March 2020; *How contagious? Conspiracies, lies and the coronavirus 'infodemic'*, *DW News*). For the latter:

Whether it's false cures or conspiracy theories, disinformation is going viral – so much so, that the United Nations says we're fighting two enemies: the scourge of COVID-19 and an "infodemic." Who's behind the spread of fake news about coronavirus and who can stop it? Can social media be compelled to take responsibility? And how is the crisis being instrumentalized for political purposes?

For WHO infodemics are an excessive amount of information about a problem, which makes it difficult to identify a solution. They can spread misinformation, disinformation and rumours during a health emergency. Infodemics can hamper an effective public health response and create confusion and distrust among people. Little is said about the responsibility of international institutions in this dynamic.

## Neglected traditional recognitions of memetic disease

There is great irony to the manner in which understanding of memes and memetic epidemics has been framed by Richard Dawkins -- given his notoriety as an atheist and author of *The God Delusion* (2006). Dawkins would necessarily choose to frame the widespread belief in God as a memetic pandemic. He specifically suggests that the theory of memes, and human susceptibility to religious memes in particular, can explain how religions might spread like "mind viruses" across societies (chapter 5, p, 191). What else might spread in that way?

**Sin as a memetic disease?** The irony lies in the fact that it can be argued that it is theology that has done most to recognize the nature of memetic disease -- through its own frameworks (as memeplexes in their own right). In the case of the Abrahamic religions this can be seen in development of understanding of "sin" -- or the mindset engendering the consequential actions engendered.

As framed by religion, sin is an act of transgression against divine law -- whatever the interpretations in different cultures. Understood as a corruption of being through acts which are wicked or destructive, this could be related to understanding of memetic disease -- namely as causing a decline from a healthy condition, however perfect that condition could potentially be.

Any classification of sins therefore invites comparison with the major categories of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* of the American Psychiatric Association (APA) as mentioned above -- to the extent that these can themselves be understood in memetic terms. In the case of Christianity, the cardinal sins have long been recognized as:

Seven deadly sins		
Traditional	Latin term	Potential behavioural implications commonly recognized
Lust	Luxuria	Promiscuity -- and unconstraint population growth?
Gluttony	Gula	Unconstrained consumerism?
Greed	Avaritia	"Greed is Good", as the capitalist creed?
Sloth	Acedia	Sloth -- as the failure "to get a collective act together"?
Wrath	Ira	Anger -- at the encroachment of others?
Envy	Invidia	Envy -- in "seeking to be great again"?
Pride	Superbia	Pride -- as the egotism undermining collaboration?

Of related relevance is the recognized set of [Seven Social Sins](#), most notably promoted by Gandhi (although he did not define them). However it is unclear how this articulation relates to that of theology -- given any memetic emphasis:

Seven social sins	
Wealth without work. Pleasure without conscience. Knowledge without character. Commerce without morality.	Science without humanity. Religion without sacrifice. Politics without principle.

**Hindrances articulated by Buddhism:** Potentially of greater value are the extensive articulations of the insight in various schools of [Buddhist psychology](#) (*Abhidharma*) as they might be held to correspond to sin in cognitive terms -- and the forms of memetic disease. There are traditionally 51 mental factors divided into six groups: 5 omnipresent factors, 5 object-determining factors, 11 virtuous factors, 6 root delusions, 20 secondary delusions and 4 changeable factors. These frame a set of 14 unwholesome mental factors (*Akusala Cetasikas*), perhaps especially indicative of memetic disease (see animation below).

Especially recognized are 5-fold and 10-fold sets of hindrances (*Kleshas*), namely mental factors that hinder progress in meditation and in daily life. One articulation is:

- 5-fold: [ignorance](#), [attachment](#), [aversion](#), [pride](#), [jealousy](#)
- 10-fold: [greed](#), [hate](#), [delusion](#), [conceit](#), [wrong views](#), [doubt](#), [torpor](#), [restlessness](#), [shamelessness](#), [recklessness](#)

It could be asked how the remarkable world wide preference for 10-fold sets of principles relates to an intuitive effort to "contain" such a 10-fold set of hindrances (*Habitual use of a 10-fold strategic framework?* 2020). A further set of 20 secondary hindrances (*Upakleshas*), as indicated below, is recognized as binding people to illusion -- arguably to be understood as a form of memetic disease.

20 Secondary hindrances according to Buddhism (see animation below)			
<ul style="list-style-type: none"> <li>• <a href="#">belligerence</a></li> <li>• <a href="#">resentment</a></li> <li>• <a href="#">concealment</a></li> <li>• <a href="#">spite</a></li> <li>• <a href="#">jealousy</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">miserliness</a></li> <li>• <a href="#">deceit</a></li> <li>• <a href="#">dissimulation</a></li> <li>• <a href="#">haughtiness</a></li> <li>• <a href="#">harmfulness</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">non-shame</a></li> <li>• <a href="#">non-embarrassment</a></li> <li>• <a href="#">lethargy</a></li> <li>• <a href="#">excitement</a></li> <li>• <a href="#">non-faith</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">laziness</a></li> <li>• <a href="#">non-conscientiousness</a></li> <li>• <a href="#">forgetfulness</a></li> <li>• <a href="#">non-introspection</a></li> <li>• <a href="#">distraction</a></li> </ul>
Reproduced from <i>Upaklesa</i> entry in <a href="#">Chinese Buddhist Encyclopedia</a>			

The table above is reproduced from an exploration of web resources on sets of 20-fold strategies, rules, methods and insights (*Requisite 20-fold Articulation of Operative Insights?* 2018).

Of particular interest in that respect is the acknowledgement in the *Chinese Buddhist Encyclopedia* that there are many different systems of *Abhidharma* -- memplexes? -- each with its own articulations of mental factors, many potentially to be interpreted as memetic diseases. As a phenomenon in its own right, **such disparate articulations frame the question as to the nature of the memetic disease which reinforces such incompatibilities.** That disease would be at the root of the conflictual relation between ideologies, religions and disciplines, as can be variously discussed ([Nicholas Rescher](#), *The Strife of Systems: an essay on the grounds and implications of philosophical diversity*, 1985).

Symptomatic of that memetic disease has of course been the conventional lack of consideration accorded to traditional articulations of such diseases by the editors of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* or by the *International Classification of Diseases (ICD)* produced by the WHO. This has been partially addressed by the inclusion of a new diagnostic category in 1994 in *DSM-IV* -- Religious or Spiritual Problem -- of which David Lukoff is a co-author (*DSM-IV Religious and Spiritual Problems*).

Does such inclusion exhaust the understanding of memetic disease implied by traditional articulations, such as that of the *Abhidharma*? Issues in relation to DSM and the ICD are discussed by Edo Shonin, et al (*Mindfulness and Buddhist-Derived Approaches in Mental Health and Addiction*, 2015). The question can be framed more generally in the light of the challenge of [cognitive biases](#) and "fake news" -- both symptomatic of memetic disease (*Memetic and Information Diseases in a Knowledge Society*, 2008; *Varieties of Fake News and Misrepresentation: when are deception, pretence and cover-up acceptable?* 2019).

**Endemic memetic disease?** There is a case for interpreting each of the above hindrances (for individuals) in terms of their collective implications, as indicated by the following articulations"

- **"seven deadly sins of organizations"**: sloppy leadership and management, abusive leadership and management, vague strategic direction, unclear roles and responsibilities, unclear expectations, square pages in round holes, and forgiveness confused with accountability (Les Stahlke, et al, *Governance Matters: Balancing Client and Staff Fulfillment in Faith-based Not-for-Profit Organizations*, *GovernanceMatters.com*, 2003).
- **"seven deadly sins of governance"**: ignorance, indifference predilection, triviality, incompetence, prevarication, tolerance (*Seven Deadly Sins of Governance (Boards)*, *Change Factory*)

Whether as sins or hindrances (or their correspondences in other religions), such articulations frame the question as to how they enrich or challenge any more conventional understanding of memetic disease -- as it might be framed by Richard Dawkins, for example.

Clearly religions would have little difficulty in perceiving the worldwide prevalence of such sins-hindrances as constituting memetic pandemics -- even a form of pestilence or plague, more generally understood. More provocative is how the sins of conventional discourse are to be related to memetic disease (*Sins of Hot Air Emission, Omission, Commission and Promission: the political challenge of responding to global crises*, 2009).

This helps to frame the question of **how many memetic diseases can be meaningfully distinguished?** How many are endemic in humanity in general -- or in particular cultures? For example, is there an analogue within any cult to the set of genetic diseases in Jewish

populations ([Ashkenazi diseases](#), [Non-Ashkenazi disorders](#))? Is the memetic "dis-ease" endemic in one culture intimately related to its sense of special identity or genius -- however that may be deprecated by that of another? Approaches by different authors to such distinctions are indicated separately ([Systems of Categories Distinguishing Cultural Biases](#), 1993).

Of potential relevance to further exploration of "dis-eased" ordering of ways of knowing is that formulated in the [Brahmajala Sutta](#). This is considered to be one of the Buddha's most important and profound discourses, weaving a net of sixty-two cases capturing all the philosophical, speculative views on the self and the world ([Bhikku Bodhi](#) (Tr). [The Discourse on the All-Embracing Net of Views; the Brahmajala Sutta and its commentarial exegesis](#), 1978).

The table of 62 cases has been presented in [Comprehensive set of ways of knowing: the All-Embracing Net of Buddhist culture](#) (2009). It featured in an earlier commentary on [Patterning: interrelating incompatible viewpoints](#) in the [Encyclopedia of World Problems and Human Potential](#).

Despite the text's almost mechanical precision in classifying and distinguishing some views, all of them need to be considered connotatively rather than denotatively, especially as possible metaphors for more comprehensive levels of meaning than is apparent. This is especially the case given the antiquity of the text and the difficulties of translation from a non-western language.

## Susceptibility and vulnerability to memetic disease -- gullibility?

In the case of COVID-19, emphasis has been placed on the extent to which some are especially vulnerable, most notably the over-60s. Very little is said about what exacerbates that vulnerability, most notably various forms of substance abuse.

**Viral marketing:** If violence is not a disease, as might be otherwise argued, there is a strange irony to the widespread preference for violence in media entertainment. Long-term, moderate to heavy exposure to violence-related content on mass media is now recognized as engendering a cognitive bias -- known as the [mean world syndrome](#) -- whereby people perceive the world to be more dangerous than it actually is.

The matter can be framed otherwise. Who is vulnerable to the emergence of a new meme which can be variously deemed to be dangerous?

The question can be related to the well-recognized process of "[viral marketing](#)". Could this be explored as a deliberate effort to spread a memetic disease? Who is vulnerable to memes spread in this way? Viral marketing is a strategy that uses existing social networks to promote a product or an idea. It refers to the correspondence between the manner of spreading a virus and how consumers spread information about a product.

Valued memplexes: It is of course the case that those disseminating new memes view them to be beneficial -- if only to those who disseminate them, and irrespective of the harm they may cause to others. Marketed memes may well be welcomed by those exposed to them -- and are designed with that in mind. Memes may well be designed to be "seductive" to the susceptible as argued by Caroline Savery ([Wanting to believe \(Seduction\)](#), [Metapsychosis](#), 16 October 2017) -- potentially then to be perceived as dangerously tempting from a religious perspective.

Memes, or memplexes, which could be controversially cited include:

- science
- religion
- ideology
- ethnicity
- culture
- security

**Vulnerability:** Those especially vulnerable to particular forms of memetic disease might include:

- the elderly
- the young
- the relatively ignorant
- the overly educated
- traditional cultures

With respect to vulnerability, of particular relevance is the argument regarding the gendering of vulnerability to epidemics by Ravayi Marindo

The main argument is that to understand gendered epidemics in Africa, we need to examine the systems of power that create and perpetuate African women's vulnerabilities at local, national and global levels....The results suggest that while a disease or an epidemic affect a group of individuals, systemic factors regarding responsible governance and the role of national politics and policies; the role of global systems that control knowledge production and sharing; as well as patriarchy and culture all contribute to creating an environment that increases women's vulnerability to epidemics. ([Gendered Epidemics and Systems of Power in Africa: A Feminist Perspective on Public Health Governance](#) [Africa Development](#), 42, 2017, 1),

**Aliens. COVID-19 and conspiracy theories:** There is a very extensive literature on extraterrestrial intelligent life and UFO sightings. Conspiracy theories abound as to the possibility that the coronavirus is in some way associated with aliens, as indicated in the examples below.

- Michael Lind: [The Pandemic is an Alien Invasion](#) ([The American Mind](#), 25 March 2020)
- Joseph R. Bankoff: [What if we treated COVID-19 like an alien invasion?](#) ([AJC](#), 4 April 2020)



- Tory Shepherd, *One Little Corona Virus was enough to unite us* (*The Advertiser*, 29 April 2020)
- Jeffrey Kluger: *Coronavirus Could Preview What Will Happen When Alien Life Reaches Earth* (*Time*, 2 March 2020)
- Henry Mance: *Aliens are coming and they are not bringing PPE* (*Financial Times*, 1 May 2020)
- Ciaran McGrath: *Alien Attack Threat: world is totally unprepared for invasion, says ufologist Pope* (*Express*, 15 March 2020)
- Keith Bevacqua: *This is Our Alien Invasion Moment; we're blowing it, but we don't have to* (*Medium*, 11 May 2020)
- Peter Fimrite: *Scientists theorize that space aliens may already be here, but we don't recognize them* (*San Francisco Chronicle*, 16 February 2020)
- Daniel Kucher: *Alien virus and biological weapon: Covid-19 conspiracy theories* (*Somag News*, 21 March 2020)
- Michelle Haines Thomas: *COVID-19 is the enemy that both unites and divides* (*Eyre Peninsula Tribune*, 11 April 2020)
- Ker Than: *Stanford's Scott Hubbard contributed to new 'planetary quarantine' report reviewing risks of alien contamination* (*Stanford News*, 7 May 2020)
- *Planet Earth Report: "Unobservable Aliens to the Coronavirus Vaccine Conspiracy"* (*Daily Galaxy*, 25 April 2020)

The widespread dissemination of such memes, and the credibility variously attached to them, can indeed be explored in terms of memetic disease. It is however also intriguing to speculate what might be the "weapon of choice" of extraterrestrials -- if invasion was their intention, as long explored in fictional dramatisations. Would potential invasion by extraterrestrials merit exploration as a form of memetic warfare -- of which COVID-19, as argued here, might indeed be an instance?

Provocatively it might then be asked whether COVID-19 is itself an alien form, or possibly a form of biological drone -- piloted from elsewhere. More provocative is the sense in which it might have been designed as a catalytic instrument to enable global integration -- as envisaged from an alien perspective, in the light of the obvious failure of global governance by humanity.

Just as the latter tends to frame the justification for "humanitarian intervention", aliens might see the world as an "Iraq" dominated by a "Saddam Hussein" with behaviours totally repugnant to their values. They might well cultivate the belief that this is the case -- a memetic disease of ETs? The question would then be what form an alien invasion would take and how it would be recognized -- especially when it might be done "for humanity's own good" (by analogy to Iraq).

There is also the sobering possibility that their values might frame the justice of such remedial intervention in terms of the principle of "[be done by as you did](#)", attentively sensitive to human justification for corrective intervention (*Writing Guidelines for Future Occupation of Earth by Extraterrestrials*, 2010).

One component of the memes circulating in relation to aliens is the possibility that they are already present on Earth in some form. There is however the further possibility that their presence may be of a more subtle nature than is readily assumed -- and usefully explored in memetic terms (*Sensing Epiterrestrial Intelligence (SETI): embedding of "extraterrestrials" in episystemic dynamics?* 2013).

Especially intriguing from a memetic perspective is the manner in which reference to extraterrestrial aliens is confused, deliberately or not, with the challenge experienced in many countries by the immigration of aliens.

## Beneficiaries of memetic disease, officiousness and authoritarianism

If COVID-19 can be usefully recognized as a memetic disease, who can be deemed to be the beneficiaries. There are various indications that "profits are to be made" under conditions of lockdown and social distancing. \*\*\*

More intriguing is the more general question of who benefits in times of social chaos, as has been engendered by the disease and the manner in which it has been reported. A study of value in this respect is that of [Nassim Nicholas Taleb](#) (*Antifragile: Things That Gain from Disorder*, 2012)

The phenomenon which is readily recognized is the implementation of emergency measures through legislation which is unlikely to be rescinded. This offers a permanent means of social control.

Intriguing in this respect is the implementation of these measures, with little challenge from any opposition in those countries which would claim to have a democratic opposition. Whereas the lack of consensus at the national level has inhibited development of any significantly effective form of regional, international or global governance, the implementation of these new measures in many countries could be seen as disguised approach to a new form of governance. Global governance by another name and of a quite distinctive nature?

The feeble approaches to effective global governance of the past -- and to [United Nations reform](#) -- are now to be seen as by-passed by a new relation with "we the peoples". The emergency nature of the measures effectively sets aside forms of disruptive protest associated with other issues -- exemplified by populism and the Occupy Movement. With little difficulty these can now be criminalised as disruptive of vital emergency measures. A striking example is offered by the response in the UK to [Extinction Rebellion](#) as a purportedly extremist organization.

Given the manner of implementation of the emergency measures and their foreseeable prolongation, new powers are effectively given to authorities at all levels of society to repress activities of the population deemed disruptive. There are clear signs of emergence of authoritarianism -- naturally to be relished by those in authority who have hitherto experienced respect for their authority as increasingly challenged. Obvious examples include the forces of law and order, but clearly including bureaucrats everywhere. A fruitful future is clearly offered to security services and those who invest in them and the material they require.

The difficulty for any authority that has the power to lie is that it necessarily has no power whatsoever to prove incontrovertibly that it is telling the truth -- as in the case of circumstances relating to an epidemic.

## Comparable examples of memetic pandemics?

In considering the following examples a distinction can be usefully made between the meme as collectively appreciated by those who cultivate it and the meme as framed by those who perceive it as an epidemic, deprecate it as a disease, and are threatened by it.

- **Communism:** However this is perceived, as a social movement or a political ideology, the response to its worldwide manifestation in the Cold War period makes clear the extent to which it was perceived as a threat (and may continue to be so). Especially relevant to this argument is the period of American history preoccupied with disloyalty and subversion as framed by the [House Un-American Activities Committee](#) and the practice of [McCarthyism](#) -- making accusations of subversion or treason without proper regard for evidence. It is the nature of the fear aroused by the threat, and the activities of those articulating a response, which merits its consideration as a memetic pandemic. Ironically one form was defined as what amounts to a disease (Vladimir Lenin, *"Left-Wing" Communism: An Infantile Disorder*, 1920).
- **Socialism:** The continuing response to socialism and "the left" -- often characterized by panic (as in the 2019 UK elections) -- suggests its recognition as a memetic epidemic, if not a pandemic (Ernest Benn, *Socialism Is a Disease*, *Foundation for Economic Education*, 1 November 1959; Bertram D. Wolfe, *Socialism as a Mental Disease*, *The Evening Call*, 10, 1917, 338). A petition was launched to recognize it as a disease (*Include socialism as a mental disorder in DSM-6*, *Change.org*, 2018). Views to the contrary have however been articulated (Farhad Manjoo, *Everyone's a socialist in a pandemic*, *The New York Times*, 11 March 2020)
- **Capitalism:** There are continuing references to capitalism as a disease -- although rarely in memetic terms. nor as a pandemic, as might be readily argued (Richard Levins, *Is Capitalism a Disease?* *Monthly Review*, 1 September 2000; Mike Pappas, *Capitalism is an Incubator for Pandemics. Socialism is the Solution*, *Left Voice*, 9 March 2020; Khaled Malachi, *If COVID-19 is the virus, then capitalism is the disease*, *Varsity*, 9 May 2020; Brendan Montague, *A virus is haunting Europe: the vector is capitalism*, *Ecologist*, 18 March 2020; Jeff Sparrow, *Capitalism is a virus*, *Red Flag*, 10 April 2020)
- **Religion:** There are many web references to religion as a disease -- and no lack of references to "religious epidemic", a framing readily developed by natural scientists. As author of *Darwin's Angel: an angelic riposte to The God Delusion* (2007) -- a riposte to Richard Dawkins -- [John Cornwell](#) challenges the latter's remarks about religion as a virus and religion as an "epidemic" of replicators (*Can you call religion a virus?* *Theos*, 21 September 2007). Dawkins discussed the insight further in *Viruses of the Mind* (1993), later included in *A Devil's Chaplain: reflections on hope, lies, science, and love* (2003). Ironically opposition to religion has been described in pandemic terms (Phyllis Zagano, *New York's anti-religious pandemic*, *National Catholic Reporter*, 18 August 2010).
- **Terrorism:** This has of course been explored as a disease -- even of epidemic proportions (Paul B. Stares, *Terrorism as a Disease: an epidemiological model for countering Islamist extremism*, *ETHZurich Center for Security Studies*, 2007; Krishna S Dhir, *Terrorism as a Cancer: does this metaphor work for India?* *Indian Defence Review*, 33. 2018, 4; Ann Mongoven, *The War on Disease and the War on Terror: a dangerous metaphorical nexus?* *Cambridge Quarterly of Healthcare Ethics*, 15, 2006, 4; Morris W. Foster, et al, *Cancer, HIV, and terrorism: translating public health models for prevention and control to counter-terrorism*, *Critical Studies on Terrorism*, 1, 2008, 1; David J. Smith, *Combating the Epidemic of Terrorism*, United States Army War College, 2017). Less evident is any framing of terrorism as a memetic disease (Richard Jan Pech, *Inhibiting Imitative Terrorism through Memetic Engineering*, *Journal of Contingencies and Crisis Management*, 11, 2003, 2):
- **"Yellow Peril":** This is a metaphor framing a psycho-cultural perception of menace from the Eastern world. Fear of the [Yellow Peril](#) is more racial than national, a fear derived from a vaguely ominous, existential fear of the faceless, nameless horde of yellow people opposite the Western world. It has been framed in epidemic terms (Christos Lynteris, *Yellow Peril Epidemics: the political ontology of degeneration and emergence*, 2018; *As new coronavirus spreads, another epidemic looms: 'yellow peril' racism*. *The Seattle Times*, 10 February 2020; *Racism and Epidemics: coronavirus triggers an ugly rash of racism as the old ideas of 'Yellow Peril' and 'sick man of Asia' return*, *Europe Solidaire Sans Frontières*, 16 February 2020; Vince Cable, *America is rekindling the dangerous myth of the 'Yellow Peril' to wage a new war with China*, *The Independent*, 6 May 2020)
- **Fascism:** Former U.S. Secretary of State Madeleine Albright has asserted that: *Fascism is a disease* (*Time*, 2018). This has been argued by others (Joseph Loconte, *The Fascist Disease*, *Washington Examiner*, 13 September 2006). As with the Yellow Peril, the COVID-19 pandemic is seen as evoking fascism (Frederico Finchelstein, *The Fascist Politics of the Pandemic*, Project Syndicate, 4 May 2020). The reference to a memetic framing is however by implication (Anthony A. Gabb, *What is Fascism? Can the "Fascist Germ" Rise to Epidemic Levels in the USA Today?* *Global Research*, 15 April 2019). Ecofascism \*\*\*\*
- **Radicalism/Extremism:** The understandings of radicalism have been variously framed in epidemic terms, notably as social epidemics (Syed Wasimul Haque, *Epidemic Radicalism*, *Frederick News Post*, 25 March 2016; Newt Gingrich, *ISIS, Ebola, and the Epidemiology of Islamic Radicalism*, *Gingrich360*, 5 September 2014). Unfortunately there is a curious ambiguity to how radical is valued or deprecated, as exemplified by some reports with regard to radical innovation (*Radical Innovators Beware -- in the arts, sciences and philosophy*, 2016; Paola Tamma, *UN report lays out radical path to combat global warming*, *Politico*, 10 August 2018). Studies of memetic significance may be relevant to both facets of the ambiguity (Aristotle Kallis, *'Reverse waves': how radical ideas spread and take hold*, *CREST*, 9 February 2017). Similar arguments apply to appreciation of extremism (*Extreme Financial Risk-taking as Extremism*, 2009; *Norms in the Global Struggle against Extremism: "rooting for" normalization vs. "rooting out" extremism?* 2005)

- **Populism:** This is readily recognized as an epidemic (Daniele Archibugi, et al, *What Causes the Populist Epidemic? ResetDialogues on Civilizations*, 27 March 2017). **Populism**, whether right-wing or left-wing, has been framed as an articulation of resentment against growing inequality (Roberto Stefan Foa, et al, *The West Has a Resentment Epidemic*, *Foreign Policy*, 18 September 2019). A new question is how it will be affected by COVID-19 (Dana Blander, *Will the coronavirus defeat the populism epidemic?* *The Times of Israel*, 23 April 2020). Especially intriguing is recognition of how pandemics reinforce or undermine each other. It is argued that anger and fear over governments' handling of the coronavirus may end up stoking the populist fire (John Lichfield, *The Next Epidemic: resurgent populism*, *Politico*, 6 April 2020; Jeremy Cliffe, *How populist leaders exploit pandemics*, *New Statesman*, 18 March 2020). The latter frames the question of how memetic pandemics may have leaders -- as is evident from the perspective of crowd psychology.
- **Evil:** Preoccupation with evil is an evident characteristic of traditional societies. Its prevalence -- in what could be understood as epidemic proportions -- has been a historical focus of Catholicism and its institutions. An international organization of Catholic exorcists has recently reaffirmed the existence of Satan as a real and personal being in terms of Christian doctrine (*Exorcists to Jesuit head: Satan is real*, *Catholic News Agency*, 23 August 2019; *Exorcism: Latest News*). It is however surprising to note the extent to which it is recognized in societies inspired by sciences unable to recognize it, as noted separately (*Existence of evil as authoritatively claimed to be an overriding strategic concern*, 2016). Barack Obama specifically referred to evil in the course of his acceptance of the Nobel Peace prize: *For make no mistake: evil does exist in the world.* (*Remarks by the President at the Acceptance of the Nobel Peace Prize*, 10 December 2009). In this light that policy sciences have recognized a category of so-called "wicked problems".

Other forms of "pandemic" of memetic significance include:

- **Black epidemic:** As variously described (Gregory Clay, *A black epidemic we don't talk about*, *Newsday*, 30 January 2020). Whilst prominence is given to the situation of African Americans, the phenomenon is characteristic of indigenous populations in many countries, notably Australia. In the case of the USA, as articulated in an editorial
  - What slavery was to Our ancestors yesterday, is what mass incarceration and the slaughter of innocent Blacks is to Our race today – The Black Epidemic. But, first let's be clear on just what an "epidemic" actually is. According to Webster, "epidemic" defined is, something which affects or tends to affect a "disproportionately large number of individuals within a population, community or region at the same time, excessively prevalent." (*The Black Epidemic*, *African-American News and Issues*, 10 November 2019)
- **Unemployment:** This can readily be perceived as reaching epidemic proportions (David Fields, *Unemployment: the silent epidemic*, *Radical Political Economy*, 27 August 2017)
- **Loneliness epidemic:** As variously described (*COVID-19 Is Making America's Loneliness Epidemic Even Worse*, *Time*, 8 May 2020; *Loneliness: a new public health challenge emerges*, *VicHealth*; Neil Howe, *Millennials And The Loneliness Epidemic*, *Forbes*, 3 May 2019; Stephen J. Dubner, *Is There Really a "Loneliness Epidemic"?* *Freakonomics*, 26 February 2020)
- **Opioid epidemic:** Understood as an epidemic, this has widespread media coverage (*What Is the Opioid Epidemic?* *Addiction Center*; *What is the U.S. Opioid Epidemic?* *US Department of Health and Human Services*; John McMillian, *American Epidemic: reporting from the front lines of the opioid crisis*, 2019). This could be understood as an instance of what might be recognized as an epidemic of substance abuse, notably of alcohol or psychoactive drugs. Their attraction merits particular attention in terms of memetic disease.

**Humanity as a memetic pandemic?** Far more controversial, but meriting particular consideration, is any perception that humanity is itself a disease -- of pandemic proportions. Humanity can be seen as having defiled and destroyed the earth following its enhanced abilities arising from the scientific and technological nature of the so-called Enlightenment. This is despite the injunction of *Genesis 1:28* regarding humanity's custodianship role. In consequence, there are many of the more fundamentalist environmentalists who now regard humanity as a disease. a virus. which is destroying the biosphere. This might follow from the argument of Gregory Bateson that *We are our own metaphor* -- with respect to the effects of conscious purpose on human adaptation.

Widely cited is the argument of David Attenborough with respect to human overpopulation of the planet (*Humans are a Plague on Earth*, *The Telegraph*, 22 January 2013; Tauriq Moosa, *Are we a plague? Well, that depends.*, *Big Think*, 27 January, 2013). This takes another form, more specifically in relation to COVID-19 through the trending memes that *humans are the virus* or that *humans are the disease* -- variously challenged (*Are humans a disease to earth?* *Debate.org*; Fiore Longo, *Humans Aren't the Virus*, *CounterPunch*, 24 April 2020). There are references to a *pandemic of humans* on the planet, perhaps framed as an *epidemic of humans*.

Again the emphasis to be made is that it is the mindset driving the pathogenic nature of humanity, namely the memetic framing of humanity by itself which merits attention. This can be recognized in references to a collective death wish of humanity, consistent with the arguments of Jared Diamond (*Collapse: How Societies Choose to Fail or Succeed*, 2005).

This understanding has been explored otherwise by Louise Squire:

The events of the Anthropocene, as engendered by humanity's actions, in some ways function to destabilise the security of humanity's survival. This essay examines differing responses to humanity's death made imminent in Cormac McCarthy's 2006 novel *The Road*. Taking an approach informed by Jacques Derrida's interrogations of "death" as aporia and "death" as "loss of the archive," a "thinking" of the beyond of contemporary "death thinking" is proposed. (*Death and the Anthropocene: Cormac McCarthy's World of Unliving*, *Oxford Literary Review*, 34, 2012, 2)

**Pandemic nature of "anti-otherness"?** A curious phenomenon is the manner in which a memplex cultivated as desirable by one culture (as with a number of the cases above) may be framed as a memetic epidemic by another. This suggests a need to explore the extent in which "anti-otherness" takes the form of a memetic disease -- potentially of pandemic proportions. Anti-semitism is readily recognized in such terms. The extent of the possibility can be explored in terms of a remedial response (*Elaborating a Declaration on Combating Anti-otherness -- including anti-science, anti-spiritual, anti-women, anti-gay, anti-socialism, anti-animal, and anti-negativity*, 2018).

Is it "negativity" which is a memetic disease or "positivity", given the argument of [Barbara Ehrenreich](#) (*Bright-sided: How the Relentless Promotion of Positive Thinking Has Undermined America*, 2009; *Smile Or Die: How Positive Thinking Fooled America and the World*, 2009)?

## COVID-19 as a memetic epidemic -- a pandemic

As stressed in the introduction, this argument does not call into question the obvious fatalities which are the focus of attention. COVID-19 is indeed a disease in the conventional sense of the term. However the response to it merits recognition as a disease of another kind -- a memetic disease. Like the pandemics indicated above, it is experienced by many through processes analogous to those associated with the rhetoric of disease and its symptoms, and evokes responses in kind which have little to do with the biology of the disease..

**Complementarity?** In this sense there are two complementary discourses meriting recognition:

- COVID-19 as evoking a remedial, fix-it mentality with which the health professions and the biochemical researchers are most obviously associated -- supported by government authorities, most obviously with the provisions of funding and emergency measures. Framed by leadership as a war, this evokes and justifies responses by the security services in an effort to ensure law and order. The tools of eradication become the obvious modality, as noted above (*Eradication as the Strategic Final Solution of the 21st Century?* 2014). As with the well-known adage, if all society has is a hammer, every problem is framed as a nail -- with its corollary that if all society can see is a nail, every viable strategy looks like a hammer.
- COVID-19 as evoking a complex of discourses, characterized by panic, confusion, misleading information, and anticipation of worse to come. This may also give rise to fatalities in various senses of the term: livelihoods, depression, or suicide. The social fabric is variously threatened and collapse of institutions and networks of relationships is readily experienced and imagined. The daily volume of information on the media feeds the uncontrolled dynamic of crowd psychology.

More intriguing, and in the spirit of the cognitive challenges recognized by fundamental physics, there would seem to be some kind of poorly articulated analogue in the psychosocial domain to Heisenberg's famed **Uncertainty Principle** ([Garrison Sposito](#), *Does a generalized Heisenberg Principle operate in the social sciences?* *Inquiry*, 12, 1969, 3). Any purported focus on the biology of COVID-19 detracts from any ability to recognize its psychosocial implications. Conversely the incoherence of the psychosocial response engenders arbitrary policy responses -- typically associated with panic and authoritarianism.

**Mimetic disease versus Memetic disease?** With respect to the confusion arising from the complementarity indicated above, of particular relevance is any understanding of "mimetic disease", notably as clarified by Richard Sobel and Peggy Aylsworth (*Mimetic Disease*, *Hektoen International: journal of medical humanities*, 6, 2014, 3):

Richard Dawkins coined the term meme in 1976. I propose using meme to describe an illness story, which like a gene, can replicate, mutate, and spread within a population. It is transmitted by words; a tale told and retold with minor variations. The idea can be applied to the *epidemic of adverse effects* that appeared in New Zealand and in Israel when worrisome but baseless stories were published about a newly introduced formulation of thyroxine...

The medical meme in this instance was a narrative comprised of a plot based on a false premise and a description of the many adverse effects an unsuspecting or a forewarned patient given this pill might develop. The false premise, that the pill was hazardous, was strengthened by charges that officials responsible for the public's health had not done their job properly and that information was being kept from the public: there was a whiff of scandal and conspiracy. The meme was repeated in daily newspaper articles and TV programs, and with each repetition it strengthened and spread to more patients. Attempts by public health authorities to reassure the public were largely ineffective. The newspapers rejected articles a colleague and I wrote explaining why the premise was false.... The epidemic ended when the media lost interest in the story and stopped writing about it. [*emphasis added*]

There are now various references to "epidemic of adverse effects". The second paragraph could be recognized as a descriptive of the manner in which COVID-19 has been reported and discussed. This helps to frame the question as to whether a "memetic disease" is a "mimetic disease" in the sense that it involves an erroneous replication of information. There is some irony to this in that this would be characteristic of a "genetic disease" and any problematic mutations.

Curiously there are many references to "mimetic disease" in literary criticism. More curious is the early reference to it by [Mortimer Granville](#), inventor of the first battery-powered vibrator in the early 1880's, as discussed by [Bethy Squires](#) (*Doctors Created Vibrators After Growing Tired of Masturbating 'Hysterical' Women*, *Vice*, 7 January 2017). Granville wrote "I do not want to be hoodwinked, and help to mislead others, by the vagaries of the hysterical state or the characteristic phenomena of mimetic disease" (*Nerve-vibration and Excitation as Agents in the Treatment of Functional Disorder and Organic Disease*, 1883). Rather than faking orgasms, Granville

thought women were faking a disease in order to have orgasms.

Is there a dimension to epidemics and pandemics, as phenomena of crowd psychology and the associated panic, which merits recognition as a form of hysteria -- one in which people "egg each other on" in their reactions to any underlying cause? Is there an unexplored need for mimetic disease, however it relates to memetic disease? In its description of imitation, mimesis then implies that it may take diseased form -- as with any "copycat" processes.

Understood otherwise in mimetic terms, this is notably related to the problematic aspects of so-called [groupthink](#), as discussed with respect to other sources of panic (*Groupthink: the Search for Archaeoraptor as a Metaphoric Tale: missing the link between "freedom fighters" and "terrorists"*, 2002; *Cui Bono: Groupthink vs Thinking the Unthinkable?* 2007; *Radical Disaffection Engendered by Elitist Groupthink?* 2016).

To what degree has the response to COVID-19 been characterized by groupthink?

**Vital signs of disease?** In this context, it would be instructive to explore the typical symptoms of conventional disease (*List of medical symptoms*, *Wikipedia*; *List of ICD-9 codes 780-799: Symptoms, signs, and ill-defined conditions*) with their potential memetic analogues (if only as recognized metaphorically). The exercise can be given focus through the standard set of [vital signs](#) -- the most important [medical signs](#) that indicate the status of the body's [vital](#) (life-sustaining) functions. What however are the "vital signs" in the case of a collective -- perhaps framed by use of metaphors relating to the human body?

Vital signs of disease as variously understood	
Physical disease	Memetic disease
Abnormal <a href="#">body temperature</a>	Heated or cold-blooded discourse?
Abnormal <a href="#">blood pressure</a>	Tense social interaction: hypertension?
Abnormal <a href="#">pulse (heart rate)</a>	Excitement associated with fear and panic?
Abnormal breathing rate ( <a href="#">respiratory rate</a> )	Stress?
<a href="#">Pain</a> as a standard fifth vital sign in some frameworks	As experienced in psychic terms
Various understandings of a <a href="#">sixth vital sign</a>	?

The approach could be enriched through clarification of the "diseases of dialogue" -- in contrast with attention to "dialogue about disease". Suggestions in this respect are variously offered (Sebastian Möller, et al, *Analysis of communication failures for spoken dialogue systems*, 2007; Takahisa Uchida, et al, *Who Is Responsible for a Dialogue Breakdown? Frontiers in Robotics and AI*, 24 April 2019; Andrew Low, *The Return of Dialectic to Its Place in Intellectual Life, Rhetoric Review*, 15, 1997, 2; K. S. Jacob, *Psychosocial Adversity and Mental Illness: differentiating distress, contextualizing diagnosis, Indian Journal of Psychiatry*, 55, 2013, 2).

**Medicalising problems and the rhetoric of disease:** Especially relevant to this argument is the sense in which the focus on COVID-19 as a physical disease is readily confused with the recognition of the extent to which it then effectively functions as a Trojan Horse disguising psychosocial issues which contribute to its achievement of pandemic status -- as noted above with respect to capitalism.

In clarifying the methods of social science discourse, Catherine Kohler Riessman indicates that that seeing human problems as diseases is a historically and culturally situated practice, first noted in the medical sociology literature by Zola 1972 and Illich, 1976, and subsequently further developed (*Narrative Methods for the Human Sciences*, Sage, 2007). With regard to the "the general Western trend toward medicalising deviance", Riessman refers to the example of Carole Cain (*Personal Stories: identity acquisition and self-understanding in Alcoholics Anonymous, AnthroSource*, June 1991, p. 211).

Given the manner in which the organs of the body are used as metaphors for comprehending the functions and health of society, any problem might well be usefully framed in that light, as for example those of academic publishing (John Antonakis, *Got "significosis?": here are the five diseases of academic publishing, Retraction Watch*, 21 February 2017). The difficulty is well-framed by Sharron Cole:

Yet increasingly, these life processes are being targeted by modern medicine and the pharmaceutical industry for treatment as if they were illnesses or diseases which require medication -- a process termed medicalisation. (*Medicalising Normal Human Experience, The Nathaniel Centre*, 8, November 2002)

Of considerable relevance is the historical insight offered by [Amara Solari](#):

In the colonial theater of New Spain, multiple actors utilized the rhetoric of disease to discuss and describe the ongoing discoveries of indigenous traditional religion, which they termed idolatry... arguing that the two primary modes of understanding the spread of illness in the early modern world, that of miasmatic factors and that of contagion, provided rationalizations for the perseverance of idolatrous practices, informed the institutionalized prevention of these heretical acts, and ultimately provided models for their possible cure. As the definition of idolatry was expanded to include all religious crimes committed by New Spain's indigenous population, it was severed from the material aspect (idol worship) that had originally defined it. The result was the conceptual conflation of two of the defining characteristics of early colonial experience: epidemic disease and ongoing idolatries. (*The "Contagious Stench" of Idolatry: the rhetoric of disease and sacrilegious acts in colonial New Spain, Hispanic American Historical Review*, 96, 2016, 3)

## Parallels in the response to a memetic pandemic -- including COVID-19?

Given the memetic focus of this argument, it is somewhat ironic to note the early recognition of "mental epidemics" in relation to

subsequent studies of [crowd psychology](#) (Eugene E. Leach, *"Mental Epidemics": Crowd Psychology and American Culture, 1890-1940, American Studies*, 33, 1992, 1). An important early clarification was offered by the psychopathologist [Boris Sidis](#) (*American Mental Epidemics, New England Review*, 35, 2014, 3) as the concluding chapter of his study of *The Psychology of Suggestion: a research into the subconscious nature of man and society* (1898).

If the response to COVID-19 can then be usefully explored as a form of mental epidemic, there is a case for recognizing parallels in the response to other pandemics understood in memetic terms as being driven by collective panic -- and perceived threats to institutions of governance. As suggested above, there is the further question of the manner in which "memetic disease" may be entangled with "mimetic disease" and an unconscious psychosocial need for evocations of "epidemics of adverse effects".

**"Witch doctors"?** The archetypal form merits recognition in the dynamics engendered by witch doctors and cultivated by them in framing an issue, positioning themselves with respect to it, and threatening those who fail to accept their recommendations. Traces of this functionality are evident in the pronouncements of "health experts" with respect to COVID-19. Care would be needed in distinguishing the modern and historical variants.

The "witch doctor" role has variously played out to some degree in the other pandemics cited. The political commissar's of Soviet Russia are suggestive in that respect. In the American remedial response to Communism, [McCarthyism](#) and its agents could be recognized as performing that role. The Nazi fascist regime clearly had agents operating in this mode -- perhaps most obviously the SS. What functions in relation to capitalism take that form? With the emergence of ecofascism, how is that role to be identified?

As with the agents of [McCarthyism](#), it is appropriate to note the reactive response in the form of "witch hunts", deployed so intensively in response to the pandemic of evil framed by Catholicism over several centuries. These were characterized and institutionalised through the processes of the Inquisition. Those processes and that institution continue to be used to frame recognition of their perceived correspondences in modern times. Donald Trump has made frequent reference to the witch hunts relating to his activity.

His perception, and that of others, is related in complex ways to the inquisitorial role of the secret services -- most crudely in the forms of enhanced interrogation, strangely echoing those of the Inquisition. That role is evident in all reactive institutional responses to pandemic.

**Condemnation:** Of some relevance to the response to COVID-19 is the framing of those who fail to conform to remedial measures. One extreme example is perhaps the lynching favoured by the Ku Klux Klan in response to slaves and their descendents when framed as intransigent. The manner in which the suspicions engendering such response are cultivated can be recognized to a degree in the encouragement to report on neighbours for failure to adhere to lockdown requirements.

**Masking:** Especially curious are the parallels associated with the use of masks, as currently evident in the case of COVID-19 -- and strongly recommended worldwide by the highest authorities. The masks of [plague doctors](#) of centuries ago are noteworthy in that respect, whether or not they are to be compared to the masks of witch doctors in traditional cultures. Despite [anti-masking legislation](#), the extent of masking (in relation to what could be described as a panic-ridden society) is only too evident in the case of security services. Use of masking is curiously fundamental to understanding of identity (*Facism as Superficial Intercultural Extremism: burkha, toplessness, sunglasses, beards, and flu masks*, 2009).

Current use of masks in relation to COVID-19 may come to be seen as developing and reinforcing the "invisible masks" which people tend to wear, as variously discussed (David McCormick, *The Invisible Masks We Wear*; Donna Bervinchak, *Invisible Masks*; Mike Sissel, *The Many Masks We Wear*; Renée Fishman, *What's Behind Your Mask?*).

**"Infection"?** As a question of identity, pandemics evoke processes offering proof of "infection", or lack of "infection". The first was tragically evident in the epidemic of anti-semitism with the requirement that Jews in Nazi Germany be visibly identified (*Jewish Badge during the Nazi Era, Holocaust Encyclopedia; Jewish Stars and Other Holocaust Badges, Holocaust Memorial Center*). As noted in the latter, the Jews of Europe were legally compelled to wear badges or distinguishing garments, at least as far back as the 13th century -- a procedure later phased out. It was resurrected by the Nazis as part of their persecution.

With respect to proof of "lack of infection", a parallel is to be seen in proposals for an "immunity passport" in relating to COVID-19, potentially related to use of tracing apps on smartphones (*"Immunity passports" in the context of COVID-19: scientific brief, World Health Organization*, 24 April 2020; Alexandra L Phelan, *COVID-19 immunity passports and vaccination certificates: scientific, equitable, and legal challenges, The Lancet*, 4 May 2020; *Governments may see immunity passports as a way of reopening societies, but they're a plunge towards totalitarianism, RT*, 7 May 2020).

In memetic terms, any sense of "infection" or lack thereof, is intriguingly related to the manner in which individuals and groups choose to signal their affiliation and belief -- as with wearing religious symbols, uniforms, indication of certification, academic degrees, or heraldry. Such explicit signs frame the question of how those "not infected" or "immune" are to be recognized -- especially when this is considered indicative of a memetic disease (as with ["unbelievers"](#)).

**Disinfection rituals:** It is intriguing, if not ironical in an increasingly secularised society, to note the great importance now attached to ["sanitising"](#) in relation to COVID-19 -- most obviously on entry to public institutions. This includes ["hand-washing"](#) readily recognized as acquiring ritual significance -- notably recalling that associated with purification rituals as a preliminary to prayer in certain religions, or any suspicion regarding infringement of a taboo in traditional cultures. The new requirement for such a process also recalls the role of [holy water](#), and their dispensers, most notably in the Catholic tradition. The use of sprays to disinfect closed spaces, as in aircraft, similarly recalls the function attributed to incense.

**"Vaccination"?** With respect to COVID-19, much is made of the potential future role of vaccination -- and the race to develop a vaccine. This merits comparison with the particular remedies recommended down the ages in response to any epidemic. It recalls the

hope attributed to a cure-all or panacea -- a "silver bullet". More intriguing from a memetic perspective is the sense in which indoctrination is recognized as comparable to vaccination, if only in the programming of recruits by cults (*Psychological 'vaccine' could help immunize public against 'fake news' on climate change*, *phys.org*, 23 January 2017).

Inoculation would then be a metaphor of choice. Thus [inoculation theory](#) explains how an attitude or belief can be protected against influence in much the same way a body can be protected against disease -- through preexposure to weakened versions of a stronger, future threat. In metaphorical and memetic terms it could be argued that mandatory vaccination or innoculation may effectively build up psychological resistance to the authorised "vaccine" -- evidenced to a degree by the widely remarked erosion of trust in authorities and their messages.

**Repression of criticism:** Institutional reactions to pandemic also share a tendency to repress information critical of the remedial measures advocated by authorities. Criticism and articulation of disagreement may well be criminalised. In the past such repression has taken the form of [book burning](#), most recently evident under the Nazi regime (*Nazi book burnings*; *List of book-burning incidents*, *Wikipedia*). A modern equivalent would appear to result from the tendency to frame critical perspectives as "hate" -- a category beyond question -- with the requirement that any expressions thereof be suppressed, most notably on social media (*EU says Facebook, Google and Twitter are getting faster at removing hate speech online*, *CNBC*, 4 February 2019; *Facebook, Google defend efforts to remove hate speech before Congress*, *IT News*, 10 April 2019).

Clearly there is every possibility for authorities to encourage reframing every kind of disagreement as "hate" in order that its suppression should be justified. As argued separately, the pacification of society in the case of COVID-19, has taken the form of encouraging a psychology of retreat (*Cowering for One's Country in the War against Coronavirus*, 2020).

**Cultivation and justification of secrecy:** The pattern of response by threatened authorities to pandemic conditions seemingly involves recourse to ever greater secrecy and lack of transparency. This is especially evident in how "infection" is defined -- as with the "health expertise" and "modelling" by which authorities claim to have been advised. History will no doubt recognize the extent to which this has been a statistical shambles, despite vigorous claims to the contrary by those most closely involved. The matter is further complicated by the strong recommendation for use of tracing apps, with little indication of how any data is to be protected against abuse and unforeseen future use, dubiously justified. Especially indicative in that respect is the process of racial classification associated with the institutionalisation of apartheid in South Africa initially in the light of innocent census data (*Population Registration Act*, 1950; Keith Breckenridge, *The Book of Life: the South African Population Register and the invention of racial descent*, 1950–1980, *Kronos*. 40, 2014).

**Dumbing down:** From a memetic perspective, the responses of authorities to any pandemic -- framed in terms of [psychological warfare](#) and [memetic warfare](#)-- merit exploration in terms of "dumbing down" in order to ensure greater control of any tendency towards public panic. A pandemic may therefore be reframed and repurposed as a means of distraction (*Destructive Weapons of Mass Distraction Versus Distractive Weapons of Mass Destruction*, 2003; *Social Distancing under Conditions of Overcrowding? Weaponising mass distraction from overpopulation denial?* 2020). Especially problematic is the "psychic numbing" as a consequence habituation to media violence, as noted above with respect to the [mean world syndrome](#) -- whereby people perceive the world to be more dangerous than it actually is.

## Configuration of drivers of humanity's potential memetic pandemics?

This argument is necessarily focused on COVID-19, but it highlights the question of other crises of memetic significance. From a global governance perspective, there is therefore the interesting question of how the complex of crises might be envisaged in the light of what might be assumed to be their anthropogenic drivers, as for example in the case of climate change (Andrew K. Jorgenson, et al, *Social science perspectives on drivers of and responses to global climate change*, *WIREs Climate Change*, 10, 2018, 1).

There are only partial configurations of such drivers, as with the set of planetary boundaries and their consideration in the light of the doughnut model of Oxfam (as mentioned above). It is then useful to ask whether there are memetic drivers which engender the crises more conventionally recognized.

One possible approach, in the absence of any cross-disciplinary consensus on the matter, is to see the above-mentioned Buddhist set of [14 unwholesome mental factors](#) (*Akusala Cetasikas*) as a suggestive key to any framing of human susceptibility to memetic disease. Clearly there are many issues in identifying the 14 drivers using simplistic labels and synonyms. Hence the clustering of "value polarities" presented in the right-hand columns.

This derives from an extensive exercise in detecting [constructive values](#) (1987) and [destructive values](#) (1992), and then clustering them in [value polarities](#) (230), as described in commentaries on the [Human Values Project](#) of the *Encyclopedia of World Problems and Human Potential*. The value polarities were themselves then clustered into 45 [value types](#).

The process addressed the challenge of confusing synonyms and overlapping interpretations in the use of English words to identify values. Such imprecision and confusion in "defining" a driver of psychosocial processes if the driver is primarily characterized by its multi-dimensionality -- a cognitive entity of a higher order -- misleadingly described by simplistic labelling

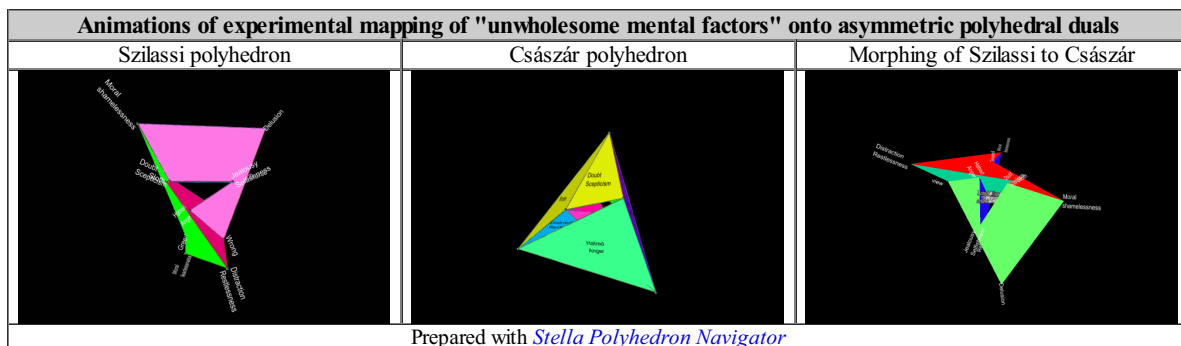
14 unwholesome mental factors of Buddhism			
<i>Akusala Cetasikas</i>		Associated value polarities	
Buddhist term	English translation	(from <i>Human Values Project</i> )	
<i>Moha</i>	Delusion	Illusion-Disillusionment	
<i>Ahirika</i>	Moral shamelessness	Virtue-Vice Modesty-Vanity Probity-Improbity	Rightness-Wrongness Exultation-Lamentation Naturalness-Affectation

		Chastity-Indecency	
<b>Anottappa</b>	Moral fearlessness	Courage-Fear	
<b>Uddhacca</b>	Distraction / Restlessness	Sanity-Insanity Attention-Inattention Patience-Impatience	Oscillation-Agitation Stability-Changeableness Contentment-Discontentment
<b>Lobha</b>	Greed	Virtue-Vice Desire-Avoidance	Temperance-Intemperance Unselfishness-Selfishness
<b>Ditthi</b>	Wrong view	Rightness-Wrongness	
<b>Mana</b>	Conceit	Pride-Humility	Modesty-Vanity
<b>Dosa</b>	Hatred / Anger	Love-Hate	Safety-Danger
<b>Issa</b>	Envy	Virtue-Vice Congratulation-Envy	Contentment-Discontentment
<b>Macchariya</b>	Jealousy / Selfishness	Congratulation-Envy	Unselfishness-Selfishness
<b>Kukkucca</b>	Remorse	Innocence-Guilt	Exultation-Lamentation
<b>Thina</b>	Sloth	Virtue-Vice Action-Inaction Desire-Avoidance	Hope-Hopelessness Feeling-Unfeelingness
<b>Middha</b>	Torpor	Action-Inaction Motion-Quiescence	Feeling-Unfeelingness
<b>Vicikicchā</b>	Doubt / Scepticism	Belief-Unbelief	

The question is then how these might be usefully configured and mapped to highlight both their systemic nature and the asymmetric "ugliness" potentially appropriate to the antithesis of the coherence conventionally associated with an idyllic human system.

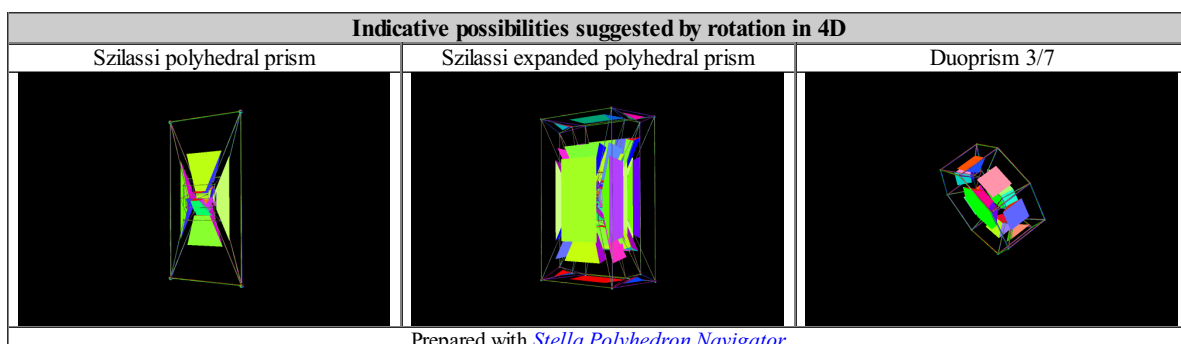
A provocative candidate in this respect is the geometrically unique [Szilassi polyhedron](#), especially given its inherent interest in systemic terms. Each face of this polyhedron shares an edge with each other face. As a result, it requires seven colours to colour all adjacent faces, providing the lower bound for the [seven colour theorem](#). Of related mathematical interest is that its geometry constitutes an embedding of the [Heawood graph](#) onto the surface of a torus.

In relation to symbolic references to the fundamental set of 7 deadly sins (as discussed above), it has 7 hexagonal faces, each touching the other -- consistent with any sense that the set of sins are all "interconnected" and form a complex of "sinfulness". Its 14 vertices offer an opportunity for mapping the set of "14 unwholesome mental factors" -- readily understood as including the 7 deadly sins, possibly as pairs of more specific nature. The Szilassi polyhedron has a geometric dual, the [Császár polyhedron](#) -- readily to be seen as appropriately distorted and twisted to a similar degree. It has 14 triangular faces, no diagonals, with every pair of vertices connected by an edge.



There is every reason to imagine that any mapping into 3D of the complex of psychosocial drivers towards collapse would fail to indicate degrees of coherence in mappings of higher dimensionality. The question is what degree of psychosocial complexity is humanity called upon to encompass, namely to "get its head around" -- given the multidimensionality which fundamental physics considers so essential to any realistic comprehension of reality?

As a provocation to imagination, the 4D projection facilities of the software used to create the above animations was applied to the Szilassi polyhedron, as illustrated in the animations below. Some understanding of the process and possibilities are described by the developer of the software Robert Webb ([The Fourth Dimension](#), [Stella4D Pro Manual](#), 2020)

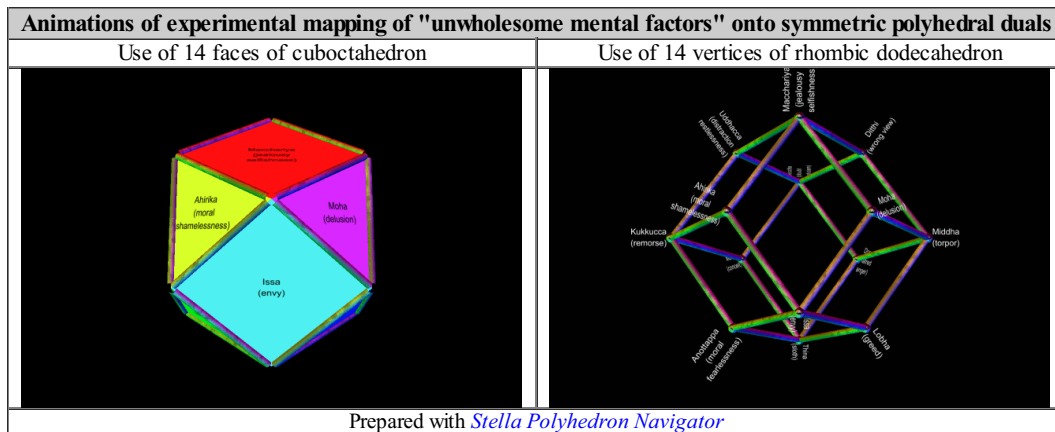




Preceding mapping exercises, focusing on trends towards collapse, included

- *Mind Map of Global Civilizational Collapse*, (2011)
  - Two-D projection: Exemplifying the nature of cognitive flatland
  - Three-D projection: Global configuration of incompatible uprightness
  - Three-D projection: Embodying disintegrative dynamics as fundamental to integrative design
- *Convergence of 30 Disabling Global Trends* (2012)
  - Checklist of 30 disabling trends
  - Spiraling trends: cyclones in a climate of change?
  - Interweaving "cyclones" and "anti-cyclones" in a global system
  - Emergent polyhedral configuration of alternating systemic functions

The geometrical mapping argument could be taken further by presenting the 14 "unwholesome mental factors" of Buddhism on spherically symmetrical forms -- in contrast with the asymmetrical forms deliberately used above. Especially appropriate to this possibility is the **cubeoctahedron** (14 faces) and its dual the **rhombic dodecahedron** (14 vertices), as indicated below.



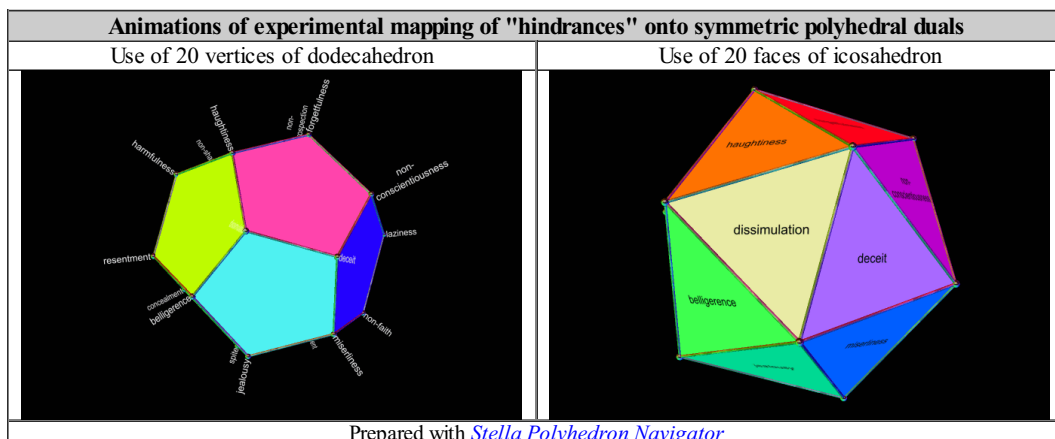
So presented, the "challenge" in geometrical terms is the transformation of the "sins" from the Szilassi polyhedron to "virtues" on the cubeoctahedron. Aspects of that argument are developed separately (*Time for Provocative Mnemonic Aids to Systemic Connectivity? Possibilities of reconciling the "headless hearts" to the "heartless heads"*, 2018).

As discussed there, of particular interest with respect to the geometry of the cubeoctahedron is its role in the creativity of **Buckminster Fuller** (*Synergetics: Explorations in the Geometry of Thinking*, 1975/1979) and its implications (*Geometry of Thinking for Sustainable Global Governance: cognitive implication of synergetics*, 2009). Its dual, the rhombic dodecahedron is of notably importance in discourse logic (*Oppositional Logic as Comprehensible Key to Sustainable Democracy: configuring patterns of anti-otherness*, 2018).

The degree of articulation of mental factors offered by the *Abhidharma* of Buddhism contrasts with that of current thinking on such matters. However it could be argued that the differences between its schools of thought on the matter derive in part from a lack of attention to the geometry which enables such articulations to be coherently mapped (despite extensive use of mandalas in 2D).

As a further example, clues to coherence could therefore be usefully explored through the mapping of the 20 "secondary hindrances" (*Upakleshas*), as noted above, onto the 20 vertices of a dodecahedron, or onto the 20 faces of the icosahedron, as its dual. That approach featured in a separate discussion on the widespread conventional preference for 10-fold articulations of principles in relation to 20-fold patterns of operacy (*Experimental animations in 3D of 10-fold configurations of strategic dimensions*, 2020; *Requisite 20-fold Articulation of Operative Insights?* 2018).

As applied to the 20 hindrances, the following animations offer an indication of possibilities.



**Failure of systemic integrity?** The references above to sins or hindrances avoid any indication of the nature of the failure they represent in systemic terms -- ironically in the symbolic understanding that they imply a fall from a more ideal condition. One remedy

would be to confront such hindrances -- as failures -- with the extensive literature on the modes of failure, as reviewed separately (*Variety of System Failures Engendered by Negligent Distinctions*, 2016). This includes sections on *Failure mode analysis and systemic dysfunctionality* and *Classification of failure and social pathology*. The latter summarizes work on:

- Pattern language of failure -- in the light of the approach of [Christopher Alexander](#)
- Social problem diagnosis -- as explored by Paris Arnopoulos (*Social Problem Diagnosis: a sociopathology identification model*, 2002)
- Social pathology in the light of knowledge cybernetics -- as developed by Maurice Yolles, whether alone or in collaboration with Gerhard Fink, from a formally defined perspective of knowledge cybernetics (*Understanding Corruption and Sociopathology, Journal of Organizational Change*, 2009)
- Taxonomy of failure as developed by Takafumi Nakamura and Kyoich Kijima (*System of System Failure: meta methodology to prevent system failures*, 2012)

If failure is to be understood metaphorically as that of the loss of integrity of a cognitive container, the modes of failure could then be recognized as potential drivers of a range of pandemics -- understood in memetic terms. In the light of the process of reverse engineering, such crises then offer vital clues to the nature of the lost integrity (*Systemic Crises as Keys to Systemic Remedies: a metaphorical Rosetta Stone for future strategy?* 2008).

#### Addendum indicative of the prevailing confusion

- Iain Davis: *COVID19 – Evidence Of Global Fraud* (*OffGuardian*, 17 November 2020)
- Peter Koenig: *COVID and Its Man-Made Gigantic Collateral Damage: the Great Reset – a call for civil disobedience* (*Global Research*, 3 November 2020)
- Jesus Garcia Blanca: *The scam has been confirmed: PCR does not detect SARS-CoV-2* (*Philosophers Stone*, Number 242 - November 2020)
- Reiner Füllmich: *Crimes Against Humanity: fraudulent PCR Tests Taken To Court* (YouTube, 10 November 2020)
- Michael Welch, Sucharit Bhakdi, and Prof Mark Crispin Miller: *Coronavirus: Killer Virus or Common Flu* (*Global Research*, 24 October 2020)
- Margarite Griesz-Brisson and Henna Maria: *COVID-19 Masks Are a Crime Against Humanity and Child Abuse: testimony of a virologist* (*Global Research*, 28 October 2020)
- Michel Chossudovsky: *The Covid-19 Numbers Game: the "Second Wave" is based on fake statistics* (*Global Research*, 1 October November 2020)
- Gary G. Kohls: *The "Third Way" of the Fake COVID-19 Two-Sided "Debate"* (*Transcend Media Service*, 31 August 2020)
- S. E. Kreps and D. L. Kriner: *Model uncertainty, political contestation, and public trust in science: evidence from the COVID-19 pandemic* (*Science Advances*, 6, 2020, 43)
- Human Rights Watch: *COVID-19: A Human Rights Checklist* (14 April 2020)
- Ana Santos Rutschman: *Mapping Misinformation in the Coronavirus Outbreak* (*Health Affairs*, 10 March 2020)
- ScamWatch: *Current COVID-19 (coronavirus) scams* (*Australian Competition and Consumer Commission*)
- Simon Read: *Fraud: Banks reveal the 10 coronavirus scams to be wary of* (*BBC News*, 28 July 2020)
- Joel Simon: *COVID-19 is spawning a global press-freedom crackdown* (*Columbia Journalism Review*, 25 March 2020)
- Badiuzzaman Bay: *Blocking media access during Covid-19* (*Inter-Press Service*, May 2020)
- Toby Young: *Dissent over coronavirus research isn't dangerous – but stifling debate is* (*The Spectator*, 4 April 2020)
- European Commission: *Identifying conspiracy theories*

## References

Stafford Beer:

- Brain of the Firm: the managerial cybernetics of organization. Allen Lane, 1972
- Beyond Dispute: the invention of team syntegrity. Wiley, 1994
- Platform for Change. Wiley, 1978.

Susan Blackmore. The Meme Machine. Oxford University Press, 1999

Bhikku Bodhi. The Discourse on the All-Embracing Net of Views; the Brahmajala Sutta and its commentarial exegesis. Kandy, Buddhist Publications, 1978 [text]

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

John Cornwell. Darwin's Angel: an angelic riposte to The God Delusion. Profile Books, 2007

Richard Dawkins:

- Science in the Soul: selected writings of a passionate rationalist. Random House, 2017
- The God Delusion. Bantam Books, 2006
- A Devil's Chaplain: reflections on hope, lies, science, and love. Houghton Mifflin, 2003
- The Selfish Gene. Oxford University Press, 1976

Jared Diamond. Collapse: How Societies Choose to Fail or Succeed. Viking, 2005

Barbara Ehrenreich:

- Bright-sided: How the Relentless Promotion of Positive Thinking Has Undermined America. 2009
- Smile Or Die: How Positive Thinking Fooled America and the World. 2009

Malcolm Gladwell. The Tipping Point: how little things can make a big difference. Little, Brown, 2000

George Lakoff. Women, Fire, and Dangerous Things: What Categories Reveal About the Mind. University of Chicago Press.

Christos Lynteris. Human Extinction and the Pandemic Imaginary. Routledge, 2019

Nicholas Rescher. The Strife of Systems: an essay on the grounds and implications of philosophical diversity. University of Pittsburgh Press, 1985

Edo Shonin, William Van Gordon and Mark D. Griffiths. Mindfulness and Buddhist-Derived Approaches in Mental Health and Addiction. Springer, 2015

Nassim Nicholas Taleb. Antifragile: Things That Gain from Disorder. Random House, 2012

Tim Tyler. Memetics: Memes and the Science of Cultural Evolution. CreateSpace Independent Publishing, 2011

George Van Driem. Languages of the Himalayas: an ethnolinguistic handbook of the greater Himalayan region. Brill, 2001

Alexander Wendt. Quantum Mind and Social Science: unifying physical and social ontology. Cambridge University Press, 2015



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