

# The International Journal of Ecopsychology (IJE)

---

Volume 1  
Number 1 *Narratives on Coronavirus: The  
Overwhelming Power of the Infinitesimally  
Small*

---

Article 7

10-15-2020

## Medieval Thinking in the 21st Century: Crystal Balls, Black Swans, and Darwin's Finches in the Time of Corona

George Conesa

Follow this and additional works at: <https://digitalcommons.humboldt.edu/ije>



Part of the [Cognitive Psychology Commons](#), [Community Psychology Commons](#), [Counseling Psychology Commons](#), [Environmental Studies Commons](#), [Epistemology Commons](#), [Health Psychology Commons](#), [History of Philosophy Commons](#), [Human Ecology Commons](#), [Medieval History Commons](#), and the [Place and Environment Commons](#)

---

### Recommended Citation

Conesa, George (2020) "Medieval Thinking in the 21st Century: Crystal Balls, Black Swans, and Darwin's Finches in the Time of Corona," *The International Journal of Ecopsychology (IJE)*: Vol. 1 : No. 1 , Article 7. Available at: <https://digitalcommons.humboldt.edu/ije/vol1/iss1/7>

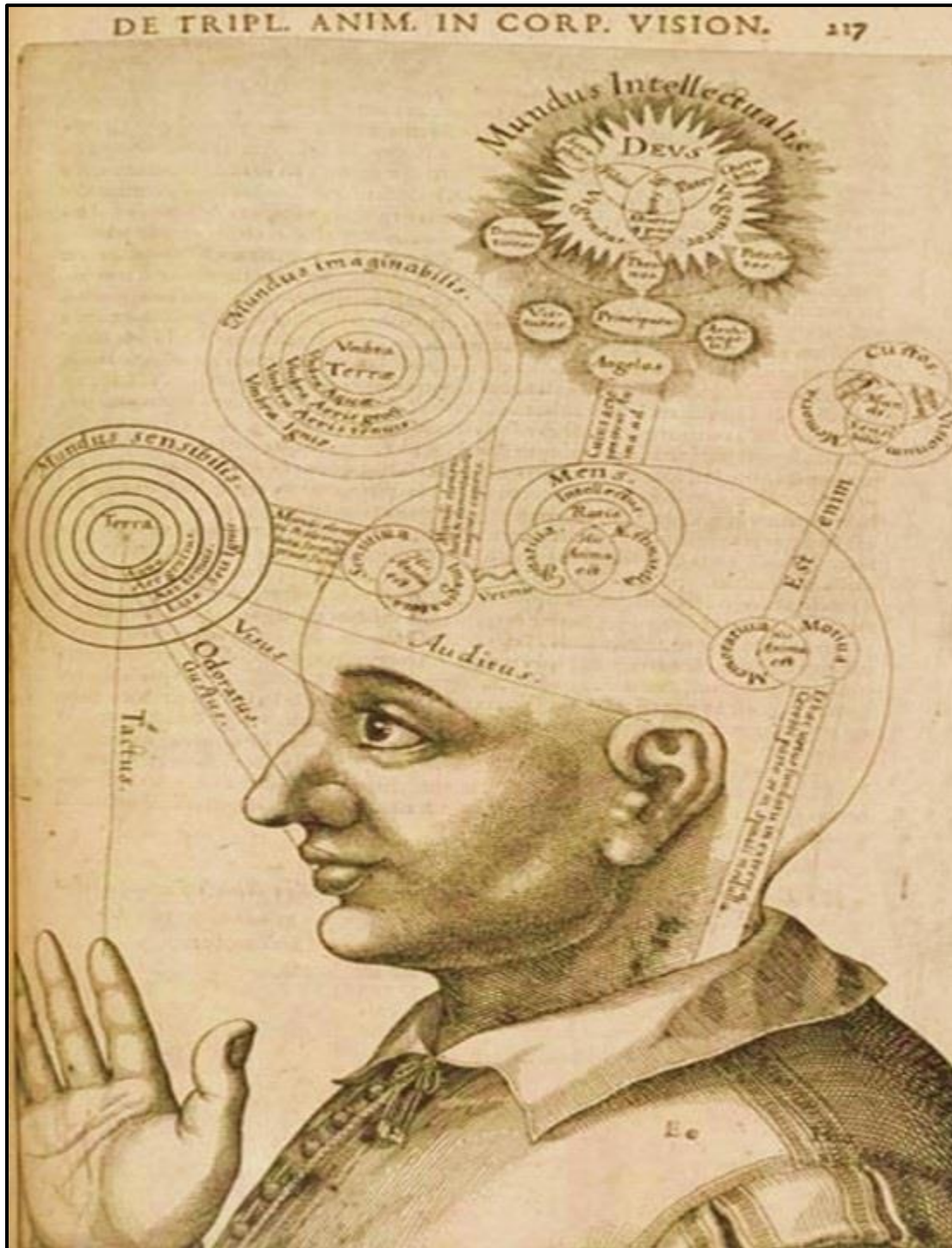
This Article is brought to you for free and open access by the Journals at Digital Commons @ Humboldt State University. It has been accepted for inclusion in The International Journal of Ecopsychology (IJE) by an authorized editor of Digital Commons @ Humboldt State University. For more information, please contact [kyle.morgan@humboldt.edu](mailto:kyle.morgan@humboldt.edu).

---

## Medieval Thinking in the 21st Century: Crystal Balls, Black Swans, and Darwin's Finches in the Time of Corona

### Cover Page Footnote

Acknowledgments: My continued gratitude to C.B.C., N.H., and I.S.B. for their critical appraisal. Although some of their comments and suggestions did not make it into this final draft, I carefully weighed their concerns in the context of servicing and favoring a more “impressionistic” voice. Illustration: Robert Fludd - *Utriusque cosmi maioris scilicet et minoris [...] historia, tomus II* (1619), tractatus I, sectio I, liber X, De triplici animae in corpore visione



**Medieval Thinking in the 21st Century:  
Crystal Balls, Black Swans, and Darwin's Finches in the Time of Corona**

Jorge Conesa-Sevilla\*

\*US – Southern Oregon University - conesasej@sou.edu

## Abstract

Twenty years into the 21st Century, a sizable swath of the world populace thinks, makes decisions, and defines itself in a conflicted and contradictory chimera. Millions of individuals make use of cutting-edge technologies while simultaneously throwing salt over their shoulders and consulting with the local ‘healer’ about any number of illnesses--to caricature, a sort of medieval-thinker-tech-savvy orientation. It is here affirmed that the practical consequences of this *agentic amalgamation*, modes of thinking, and “being in the world” are counterproductive at best and self-defeating at worst, resulting in much uncertainty and leading to, for example, mixed messages in public health approaches and responses with respect to Covid-19. If this was a case of a simple anachronism, a back-to-the-land movement without technology, it would not be disturbing at all. This agentic amalgamation may be important in formulating what it means to be ‘human’ in rapidly changing contemporary societies long after the Coronavirus pandemic slows or stops.

*Keywords:* Medieval philosophy, Dunning-Kruger Effect, Epistemology, Agency, *Agentic Amalgamation*

Conesa-Sevilla MT

*“It is not “scientism” to concede the objectivity and precision of good science, any more than it is history worship to concede that Napoleon did once rule in France and the Holocaust actually happened. Those who fear the facts will forever try to discredit the fact-finders.”*

~Daniel Dennett, *Darwin's Dangerous Ideas* (1995: 495)

## Introduction

A philosophy professor of mine began many of his first lectures, to paraphrase, as follows: Most people have thoughts, or at least, they tell us they do. But only a subset of all these folks produce great and useful (history changing) thoughts. This was his way of letting us know that his philosophy courses were in actuality a means to the same end: to help us think better--critically, objectively, as if our lives depended on it, which, of course, they do.

In a similar vein, the opening quote by the philosopher Daniel Dennett speaks to the challenges of ensuring that scientific literacy, lacking another phrase, with its basic and accompanying tool set of critical thinking skills, not only survives our present climate of distrust and its slash-and-burn modality of falsity and propaganda, but also endures as part of an American educational curriculum. At first look, a significant divide between learning and applying critical thinking modalities on one hand, and running amok with raw conspiratorial emotion and hate-bile in one's mouth seems to be simply a lack of education. A runner-up explanation, popular in “ecopsychological” circles, is that a lack of awareness or reduced level of ‘consciousness’ (this construct is seldom fully explained but is usually meant as some sort of higher-up spiritual form/force of ‘being’) is preventing most of humanity from moving ‘forward’ (in the same circles, there are also differences of opinion about which teleology might be best for humanity and another entity they refer to as ‘nature’).

There is no question that the former is necessary if our and other species are to survive. Empiricism, in one fashion or another, whether by muscle-pulling trial and error, or by statistical means, has been around for as long as humans decided to up their agentic prowess and be more of themselves onto the land, or to understand the natural world in more precise ways. The latter, if sufficiently explicated and agreed upon, could lead to sensible and workable visions of what humanity and the rest of the planet might need to be in the next century and beyond.

The focus of this presentation is to inquire about how extant modes of thinking and being continue to co-exist long after scientific discoveries, in leaps and bounds, have provided us with a more precise picture of life on this planet, the duplicitous behaviors of the infinitesimally small, the geometry of the cosmos, as well as important insights into the evolution of human mental processes. An all-too-obvious observation is that a sort of *anachronistic agentic amalgamation* (again, let's caricaturize it as a medieval thinker in the 21<sup>st</sup> Century, or “MT”) makes for any number of *time-against-time* almost incommensurable communication situations with resulting and recurring social conflicts (Conesa-Sevilla, 2021—in press). The semiosis of *time-against-time* (T-A-T) situations are illustrated in Figure 1 as a semiotic square. That is, T-A-T communication impasses reflect:

The historical oppositional incongruencies of ambivalent, empty, conflicting, lagging and persistent signs vis-à-vis their purported representations (“objects”) and their impact on several and co-existing generations of “interpretants” (Conesa-Sevilla, 2021, p.2).

Seen and understood in transgenerational terms, manifested as information that carries the ‘weight of the ages,’ these rhetorical habits tend to conjoin two fallacies: an argument from antiquity (*argumentum ad antiquitatem*) and an argument from authority (*argumentum ab auctoritate*). Many people take seriously the superficial sobriety (seriousness?) implied in this sense of ‘the weight of the ages’ or at least enough do, so it seems, to give rise to any number of oppositional discourse modalities which, in turn, further degenerate into open warfare.

So instead of a brand new mint-conceived 21<sup>st</sup> Century person with an inclination toward enlightening critical thinking processes, a predilection for verifiable facts, and the embracing of intelligence and sagacity in all peoples, we often encounter the medieval thinker person: a quizzically formed throwback, psychological vestigial chimera of many centuries of magical thinking, recurring hubris, and disdain or fear of “otherness,” piled upon, to boot, and embodied in a car-driving, smart-phone-operating ape. Being an ape is no insult, but a physiological and genetic reality, that frequently, the latter type dismisses or outright denies.

The media and cultural manifestation of this disturbing chimera is reflected in a plethora of television shows that serve these psychological vestigial or recurring attention-getting interests: yet another mystery series; ghost stories; the many ways to detoxify our bodies and unclutter chakras; La Llorona dramas; Sons of Anarchy ethics and disputes; or the many stupidities that Homer Simpson commits during his looping-infantile existence of never rising to the duty-occasion of becoming a mature individual--that is, crystal balls, black swans and Darwin’s finches programming.

### **Crystal Balls, Black Swans, and Darwin’s Finches**

Picking up from the previous section, the following three examples are gist-illustrations of the same idea in contrasting degrees: crystal balls, black swans, and Darwin's finches.

*Crystal Balls.* A crystal ball is an impressive instrument in a soothsayer's hands. Not quite a sleight of hand, nevertheless, the instrument itself conveys clarity and completeness allowing for a “bait and switch” psychological manipulation where its material and supposedly “magical” qualities can be easily projected unto an experienced diviner--the expert--by the credulous lot. “It was crystal clear!” a duped customer might say, afterwards, when his fortune has been ambiguously revealed: “Beware of a dark stranger coming to meet you in a blind alley of a forbidden city” (Pennycook et al, 2015). Any soothsayer might even have predicted something along these lines: “A great pest will visit your family in the next one hundred years.”

*Black Swans.* A black swan event (Taleb, 2007/2010), on the other hand, is the actuality of meeting a certain ‘dark stranger’ in a ‘blind alley’ while touring a street in Barcelona, and being robbed; but only in hindsight can the unfortunate but naive traveler rationalize that the scary incident was probable, improbable, or “just right.” Only in hindsight do rare, unlikely or unimaginable (unforeseen) events resemble the certitude of foresight. The Coronavirus pandemic is not a black swan event.

*Darwin's Finches.* Charles Darwin, after visiting actual islands off the coast of Ecuador and having collected many-a specimen of Galapagos' finches, spending years on taxonomic comparisons, and theorizing about their varied and respective ecological niches, posits a testable hypothesis of how speciation occurs (Sulloway, 1982). And, as it turns out, he has been vindicated many times over. Viral strains adapt and so do humans. On that score much of evolutionary medicine agrees.

The preceding examples run a shorthand gamut of epistemological positions that, in the words of Frank Night (1921), describe situations and conditions under which one is justified in making a claim based on available trustworthy evidence, the ability to assess 'risk,' and betting on it:

Risk is the possibility of alternative outcomes whose probabilities are capable of measurement; uncertainty is the possibility of alternative outcomes whose probabilities are not capable of measurement. When probabilities are known, adverse outcomes may be insured against. Uncertainty is handled by judgment, an unequally distributed ability ... a measurable uncertainty, or 'risk' proper (p. 20).

Many people, judging by the nature of the *magical thinking* justifications underlying some of the important choices they make, who are also very 'smart folks', seem to be oblivious to the above differences. The null hypothesis of the preceding observation is to imagine a world where most people, most days, are aware of and conform to Night's (1921) distinctions and act appropriately on their derived choices. What sort of world would that be? Climate change dealt with? Poverty eradicated? Most illnesses gone? To possess judgment of this sort would imply having some working knowledge of statistics, access to accurate (independently curated) and thus ideology-free information, and a greater degree of personal agency and independence.

Even if this distinction was known (as meta-cognition) and applied, there are many and all-too-frequent real-world situations when/where time and environmental demands or constraints force less desirable, probabilistically speaking, choices. For example, the mayor of a coastal city whose citizens and economy depend on tourism, during the present Coronavirus pandemic, may choose to waive medically recommended use of particular masks in certain situations in order to ensure continued economic viability—or survivability. Politicians are most commonly pressured to accept short-term gain options against longer-term benefits. To make these situations even more complex, this lack of a meta-cognitive ability to understand and judge the limits of our knowledge, is clearly illustrated by the Dunning-Kruger Effect (Kruger and Dunning, 1999). In a nutshell, extremely high confidence paired with almost total ignorance of the facts may be forgiven when, once a year, a *curmudgeonous* uncle comes to Thanksgiving dinner and espouses all sorts of conspiracy theories. However, no responsible leader, whose job it is to govern under the slogan "maximize the good and safety of most citizens," is served well by the gastric epistemology of "I have the gut feeling that things will be fine."

More puzzling, the previously presented examples, crystal balls, black swans, and scientific or systematic approaches--a rich gamut of epistemological positions--are likely to co-exist in the same person and mind, and are also likely to result in any number of disparate actions not always consistent with each source of noetic intentional force, oftentimes producing incongruent or contradictory outcomes.



Presently, Medieval-Thinking (M-T) oriented folks might disregard the best advice from modern science about Covid-19 by attending church services, political rallies, bars, and beach parties where dozens or even hundreds congregate, hoarding trunk loads of toilet-paper rolls for reasons only they can rationalize, and believe in conspiracy theories propagated by incendiary and disreputable propaganda sources that dub themselves “news.” In its extreme expression, a person exhibiting a M-T orientation is sure that no human has landed on the moon, that viruses are an expression of a deity's angry disposition, or that the Earth is flat--or equally, that it is a sentient entity. If this person is also the leader of a nation, then the implications of his world view become ridiculous for sure, but also dangerous and terrifying. Dozens or even hundreds of individuals exhibiting colorful and quizzical M-T orientations let loose on the world, but in the middle of nowhere, is almost of no consequence. On the other hand, the leader of a nation who convinces others to act in ways that contradict the best-got consensus and scientific evidence is likely to send thousands to their deaths.

Examples of a M-T orientation are widespread and common. For example, a sagacious author like Noah Gordon who explores the development of medicine in the context of, coincidentally, medieval historical backgrounds (“The Physician”), and whom most of us would assume to be a well-read person in these matters, was recently quoted (Vila-Sanjuán, S., 2020) in an interview for the Spanish newspaper “La Vanguardia” saying, “This pandemic is trying to kill me and the people I love” (“*Esta pandémica esta tratando de matarme a mí y a las personas que amo.*”). One of the comments posted under this article read, “With the greatest respect and compassion ... this pandemic has no intention [agency]. This pandemic is not trying to kill you.” The confabulation of a ninety-something seasoned reporter and writer may be forgiven. However, this could also be a case of epistemological amalgamation, since Gordon has written several novels with religion as a centerpiece. One may assume that in Gordon's mind, religion, the development of science-based medicine, and his feelings about an unconscious, non-living and yet intentionally malignant virus easily coexist.

Generally speaking, it is difficult to envision how most nations of this world might move forward, together, making progress toward a more humane, rational, and equitable global society, if this is a desirable outcome, when conflicted and conflicting modes of thinking inhabit the brains of millions of people.

### **The Philosophy of M-T**

The Stanford Encyclopedia of Philosophy (Spade, 2018) defines medieval philosophy as an uneasy, quizzical, and contradictory mixture of:

...classical pagan philosophy, mainly Greek but also in its Roman versions, with the new Christian religion. Season with a variety of flavorings from the Jewish and Islamic intellectual heritages. Stir and simmer for 1300 years or more, until done. This recipe produces a potent and volatile brew. For in fact many features of Christianity do not fit well into classical philosophical views.

One could expand the above historical timeline to include not just 1300 years or more of “thinking,” but millennia, should one wish to include shamanic practices and older religions.

From this philosophical literature and while incorporating later cultural developments and technical advancements through the Enlightenment, countless wars, the exploitation of native peoples, Darwin's discoveries, two world wars, many pandemics and a little ice age, one gets the real sense that the history of knowledge (of knowing and thinking) and the history of ideas looks like the proverbial snowball growing in size, rolling downhill and engulfing anything in its path without discarding much of its trapped and asphyxiating contents. Every now and then, like most snowballs, it meets its end exploding against some hard surface of reality sending all the collected pieces far-flung—but not far enough. This illustration presently describes, it seems to me, the various uncoordinated and half-measured responses to a Covid-19 pandemic when germ theory has advanced well beyond supposing that germs might exist to actually having pictures of them and understanding their genetics.<sup>1</sup>

To be fair, one ought to expect an almost incommensurable noetic gulf, an epistemological divide, between the leading scientists of today who are not, one hopes, prone to medieval thinking, and much of rest of the world who might still be tumbling inside the snowball of conflicting ideas and approaches to understanding their world--multiple realities, individually and idiosyncratically collated. Additionally, to be realistic, one ought not to expect that the same lucid scientists have the ears of every politician or the few that count when making critical and timely decisions about matters of public health.

To the extent that medieval philosophy effectively exerted its confusing and contradictory modes of thinking, these conflicted views trickling down and giving rise to chaotic manners of being at the village level, then it is easier to grasp why the European populace ended up subjugated and controlled for such a long time. Under such circumstances, all kinds of abusers are sure to rise who would demonize neighbors, inflict cruelty and, in general, dehumanize their charges. In the absence of *corroborable* evidence and the just application of the rule of law, old women are accused and condemned of being “witches,” children sold and bought, and life has very little value.

Things go from very sad and tragic to genocidal proportions when European powers venture into other continents and meet peoples and religions they find impossible to reconcile with their very own contradictory ideas. The historical injurious effects and ensuing trauma last for centuries; for example, the remnants of past abuses preventing an entire continent like South America from moving forward into a more secure and brighter future (Mahoney, 2017).

Yet another agentic amalgamation, Aztec king, Medieval thinker, Catholic virgin, heroic revolutionary, Art Deco specialist, penicillin savvy med-tech, jet-set globe-trotting citizen and computer programmer, as impossible as it may seem, may inhabit the mind-being orientation of not just one, but many individuals. Contrast this outlook to the following supposition and second null (human ecological) hypothesis: *that before humans were forced to consider the agglutination of a thousand uneasy and fragmentary 'faces' and 'theories,' they engaged in long-lived monolithic and all-encompassing cultural lives--their consistency and probabilistic*

---

<sup>1</sup> Or confusing one type of virus with another, oversimplifying the microbiology and genetics of pathogens, and/or publicly stating this ignorance or ill-intention for the purposes of propaganda to 'save face' or appear knowledgeable.

*value in the face of certain death the only assurance that they, their families, and clan might endure beyond the next downed bison. When morning came and the sun rose again, a hunter-gatherer knew many practical things, but also had a singularly anchored sense of self, place, region, mortality, confidence, tribe; and his distinction of friend and foe was clearer and restricted to fewer folks.*

### **Agency, Certainty, and Death (Certainly)**

Agency describes and characterizes the degree to which a sentient organism (let's start here) is able to express and procure, as fully as possible, its own survival and individual needs. The vague and highly projective slogan “the pursuit of happiness,” is also an illustration of an ideal sense of agency. With progeny these needs may extend to one’s ability to ‘do good by the family’. Within a community, it may also mean having a place and a voice so one can shape the kind, quality, and direction of culture itself. Consequently, human complex psychology, inhabiting the existential envelope of self-awareness, is thus capable of multiple and diverse degrees of freedom when it comes to defining and exercising what agency means. For one person, fully possessing and expressing his own agentic possibilities may be nothing more than securing a basic shelter and eating at least once a day. For another, to whom affluence is the rule, having quite a bit, in excess of what most humans consider necessary, may never be enough. Both individuals function within a probabilistic framework that defines and limits the likelihood that they will ensure their perceived, actual, and preferred level of agentic freedom for as long as possible. However, without an appropriate and cohesive moral framework, people tend to maximize individual gains at the expense of “the commons” (Hardin, 1968).

To quote Hardin (1968) from his classic look at the balance between individuals’ freedoms and responsibility to “the commons”:

Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.

Some would say that this is a platitude. Would that it were! In a sense, it was learned thousands of years ago, but natural selection favors the forces of psychological denial. The individual benefits as an individual from his ability to deny the truth even though society as a whole, of which he is a part, suffers (p. 1244).

To these people, and to others existing between and beyond this agentic continuum, death is certain, even though it may not be pressing-present in their minds, day to day. Assuming with the best of psychology that, at some mind level, to be mortal turns out to be one of a handful of significant motivating forces behind our doings, then our sense of control, our ability to understand the odds stacked against us or in our favor, our understanding of our limitations, and the power exerted upon us by human or exo-human forces, will shape and determine our zeal in deploying “our best efforts” to live and enjoy another day.

In the above agentic and probabilistic context, the superstitious and pragmatic M-T cloak, that is, to simultaneously be “the *agentic amalgamation*, Aztec king, Medieval thinker, Catholic virgin, heroic revolutionary, Art Deco specialist, penicillin savvy med-tech, jet-set globe-trotting citizen, and computer programmer,” might confer some solace or provide some benefit, some of the

time. However, this sense of security, with accompanying fragmentary and piecemeal epistemological bits and pieces, is akin to a knight's suit of armor: many parts stiffly sewn together, with accompanying lethal tools and talismans, all clanking and hanging, making for, equally, a less mobile agent. And when bad things happen, mostly unforeseen, can the clunky and slow-moving knight be quick-witted and nimble enough to deploy the appropriate set of responses against foes--a Coronavirus for example, that efficiently and mindlessly replicates within its resolute armor? Can a spiny hedgehog outpace a fast-moving car? As in “Bernardo Atxaga's” (Joseba Irazu Garmendia, 2001) poem, “The Tale of the Hedgehog”:

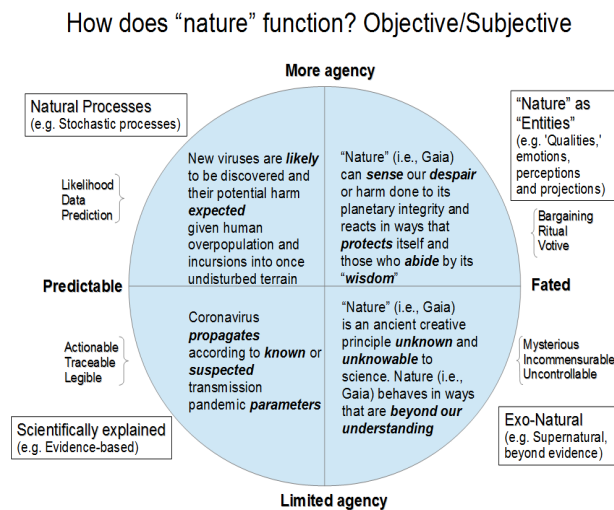
...as sure of his spines as a warrior in Sparta or Corinth could have been of his shield;

and suddenly, he crosses the boundary between the meadow and the new road with a single step that takes him right into my and your time. And given that his universal vocabulary has not been renewed in the last seven thousand years, he neither understands our car lights, nor realises his forthcoming death.

With the above descriptions in place, one can rephrase thusly: human agents exhibiting various degrees of talent put in the service of controlling and directing their lives and those of others (protect, defend against, endure), while possessing some notion of their mortal lives, and betting on this and that occasion as being more or less favorable to their existential continuance (surviving and thriving), may go to any length, consciously or not, uncanny or reasonable, to better their odds and lot.

Figure 1 is a semiotic square contrast of some of these ways of thinking and modes of being.

Figure 1: Semiotic square: Function (Jorge Conesa-Sevilla, 2020 ©)



In this illustration (see an enlarged version after the references), epistemological poles and ranges leading to any number of “beliefs” and perspectives are shaped and determined by the degree of agentic freedom a person believes h/she has and whether h/she operates under the assumption that a probabilistic universe versus a fated existence rules h/her life. To be fair, two friends having a dinner conversation espousing even markedly distant perspectives is a harmless enough forum. At the end of the evening, most likely, they continue as friends. However, if in

the inchoate and nascent stages of new perspectives passing for revolutionary ideas (e.g., “ecopsychology”), there is a lack of intellectual rigor, self-criticism, and critical thinking, there is a danger that the new outlook will become another cacophonous bag of claxons, drums, and tambourines taking a handful of rats to the fabled river. This is not quite the case, as Voltaire (1785: 691) put it, of, “Those who can make you believe absurdities can make you commit atrocities.” However, any sort of purist ideology is potentially lethal under the wrong circumstances.

Medieval thinking mindsets may work, if only for a little while; and banging drums and tambourines from terraces, praying to our favorite saint, drinking grandmother's “good-for-all-ills” elixir, or following the quizzical and idiosyncratic directives of a mad king, may momentarily appease. But a virus does what a virus does, and only a one-source, clearer understanding and set of tools is up to the task of averting and mitigating a pandemic: scientific knowledge, both medical and socio-behavioral, and its timely application.

By fits and starts, our collective and overall response to the Coronavirus pandemic has also been an example of M-T agentic amalgamation. To employ the lucid words of *The Atlantic's* essayist and frequent contributor Ed Yong (2020):

Many Americans trusted intuition to help them guide them through this disaster. They grabbed onto whatever solution was most prominent in the moment, and bounced from one (often false) hope to the next. They saw the actions that individual people were taking, and blamed and shamed their neighbors. They lapsed into magical thinking, and believed the world would return to normal within months. Following these impulses was simpler than navigating a web of solutions, staring down broken systems, and accepting that the pandemic would rage for at least a year.

These conceptual errors were not egregious lies or conspiracy theories, but they were still dangerous.

“Vaccinations be damned.” “Earth is today as flat as my ancestors thought it was.” “Nobody has ever landed on the moon.” “Earth is Gaia and it protects itself—and me in particular.” “Meditation bowls cure anything.” “The Chinese crafted a miniature version of themselves and let it loose on the world.” These and other silly and demented slogans are no match for a mindless but insidious virus that cannot read or hear them. It turns out that a M-T mindset, twenty years into our 21st Century, can kill us as surely as when the Spanish Flu made its lethal rounds a hundred years ago. But different and conflicting narratives rooted in what appears to be the expression of many people acting upon an array of messiah complexes, shared *en-masse*, espousing any number of conspiracies, or an increasing incidence of *mass sociogenic illness* (Bartholomew and Wessely, 2002) do not perturb viruses one bit.

Related to the M-T mindset and/or orientation, Bartholomew and Wessely (2002) report that:

Between the 15th and 19<sup>th</sup> centuries, exceedingly strict Christian religious orders appeared in some European convents. Coupled with a popular belief in witches and demons, this situation triggered dozens of epidemic motor hysteria outbreaks among nuns, who were widely believed to have been demonically possessed. Episodes typically lasted months and in several instances were

endured in a waxing and waning fashion for years. Histrionics and role-playing were a significant part of the syndrome (p. 300).

After reviewing the relevant literature, the same authors conclude: “It seems clear that there is no particular predisposition to mass sociogenic illness and it is a behavioural reaction that anyone can show in the right circumstances” (p. 303).

It is too premature to assert that some type of *anachronistic agentic amalgamation* and/or *time-against-time* semiotics contribute to these states. However, on the surface, it appears that during situations of social crisis and uncertainty and/or environmental duress, people respond by behaving in ways that satisfy (meet the epistemological standards of) the superstitious outlook and beliefs of their ancestors as a form of collective regression--as a coping strategy. Another question worth asking is whether a *psychological prophylaxis* exists that can ameliorate the slumbering and inefficacious effects of “the weight of the ages.”

### **The Alternative (s)**

Serious epidemics, particularly the airborne-contagious type, end, to upturn Tolstoy, in similarly horrific ways: the poorest, the young and careless, the elderly, the perennial embracer-hand-shaker, the least informed, the frail, the dirtiest, the forgotten, and extroverts, die first. The wealthy and scientists have a fighting chance, particularly if they are big on personal hygiene and/or happen to be introverts, where self-isolation comes naturally.<sup>2</sup> When chaos is the norm, panic strikes, and afterwards, during rationalizations and/or confabulations (Hirstein, 2005), any jumbled number of reasons, anecdotes, or false memories are likely. Under such dizzying and unlucky circumstances, the unprepared, or confusingly prepared M-T oriented citizen grasps at all available straws as far back in time as when great-grandfather burned witches and blamed black cats for any number of misunderstood evils. This ease of proffering or inventing a causal force and/or agency without rational checks and balances ‘explains’ phenomena in situ, “on the fly,” but without, always or necessarily, having any *evidencial* merit. Thus, according to Hirstein (2005), confabulation may illustrate a generally ‘good’ adaptation, but one which can be equally misapplied:

Why then does confabulation happen? Confabulation seems to involve two sorts of errors. First, a false response is created. Second, having thought of or spoken the false response, the patient fails to check, examine it and recognize its falsity. A normal person, we want to say, would notice the falsity or absurdity of such claims ... Rather than being merely an odd neurological phenomenon, the existence of confabulation may be telling us something important about the human mind and about human nature. The creative ability to create plausible-sounding responses and the ability to verify those responses seem to be separate in the human brain (p. 2).

Putting aside our propensity for confabulation (in the medical and the common sense use of that term), in the context of thinking about agentic degrees of freedom, better prospects, considering risk and investments of any type (in matters of marriage, trading mules, or planning next year's

---

<sup>2</sup> Lest the reader think the author makes jest of a very sad situation, he or she should know that humor does not come naturally to him and when used is really a statement of desperation.

crops), and living to see another day in good health and sufficient contentment, what a ‘better life,’ a psychological prophylaxis, both in the short and long run, might include:

1. Having a robust mind-body-wherewithal (*overall resilience*)
2. Making timely decisions and the right sort of decisions (*estimating the odds correctly and acting accordingly*)
3. Developing a good-enough sense of statistical know-how with which to stitch a model of reality that possesses plausible heuristic value--during seemingly stable and changing circumstances (*statistical thinking*)

Psychological resilience, a stable temperament, and a passable sense of humor may not be absolutely necessary, but together with the previous dispositions and talents, round off optimal existence nicely. What these features and dispositions of mind and behavior have going for them is that they are also a counterpoint to M-T orientations. Collectively they might transcend, in a pragmatic and utilitarian sense, the many historical variations and attitudes of “culture.” The first element implies good mental hygiene, affective fortitude, and the acquisition of basic skills and knowledge. Number two refers to agility of mind and the flexibility of responses that comes with practice and good habits while living in the real world and being impacted by its changing phenomena. Number three may require specialized training plus the ability to understand and adapt to cyclical or phenological events, for example, or to some event unknown and far in the distant future.

The alternative to inefficient thinking is efficient thinking that typically comes alongside scientific training. The alternative to blaming others or proffering absurd ideas is science. The alternative to idiosyncratic forms of government that are powerless to avail themselves of the best science, particularly today, lies in the intellectual fortitude and courage of better-informed individuals and the actions they take to countermand bad policies. The alternative to stupidity, demagoguery, harmful propaganda, byzantine attitudes about life and who deserves it most, is, and has always been, equality, justice, reason and reasonableness.

## Conclusion

The M-T orientation and the above counterpoint are two manners of engaging with and being in the world. The former may be “good-enough” as long as societal and other environmental circumstances remain tranquil and manageable. Under the existential modality “no crisis in sight, no harm done,” humans continue being as silly and conflicted, or as neurotic and psychotic as they have always been, within certain necessary and manageable social parameters or constraints. But if one subscribes to an idea of progress that inches ever so slowly toward a more humane, rational, and equitable global society, with the health and the protection of an entire planet in mind, then the M-T orientation appears to be more counterproductive, if for no other reason than the following: any given culture in the past has met and solved its challenges as best it could, *in situ*, but these solutions might not be applicable to other more complex and trying circumstances in the future. “Wisdom” and “morality” being, in this sense, relative--contextual (Hardin, 1968). The ability to compare distant situations to recent events, in part a discipline of

evidence-based history, archaeology and biological evolution, is paramount if one is to deploy the right tools in a timely fashion. But this necessary analytical comparison is not the same as agentic amalgamation.

In this light, it is difficult to imagine the many societies that exist today without computer based statistical modeling tools now required to keep track of our multi-faceted and rapidly changing existential logistics. It is equally difficult to imagine a world without professionals whose jobs require the manipulation and understanding of these necessary tools and their purposes. To most of the world populace, what these tools are and how these professionals think or act might seem like magic. And if it is seen as such, magic, then a M-T oriented person might also assume that h/she can easily countermand what h/she does not like or fears with “some other sort of magic.” The worst-case scenario is what Ed Yong (2020) refers to as *the habituation of horror*:

The U.S. might stop treating the pandemic as the emergency that it is. Daily tragedy might become ambient noise. The desire for normality might render the unthinkable normal. Like poverty and racism, school shootings and police brutality, mass incarcerations and sexual harassment, widespread extinctions and changing climate, COVID-19 might become yet another unacceptable thing that America comes to accept.

The consequences of medieval thinking in the 21st Century can be more catastrophic than the many ills and challenges we now face and will continue to face. The flying fruit bat that sneaks in through the kitchen window is harmless in comparison to the panicked reactions of the revelers upturning kerosene-lit lamps, pulling sharp knives, bumping into and blaming one another for not killing the confused beast. Given the fact that flying fruit bats have no intention to change their flying ways any time soon, perhaps it is up to us to change ours--put on a better “thinking cap.”



## References and Bibliography

Bartholomew, R. E. and Wessely, S. (2002). Protean nature of mass sociogenic illness: From possessed nuns to chemical and biological fears. *British Journal of Psychiatry*, 180, 300-306. (p. 300)

Conesa-Sevilla, J. (2021). Semiotics of time in communication relations. To appear in Amir Biglari's (Ed.) Open Semiotics (vol. and pgs. to be assigned). Paris, France: Éditions L'Harmattan.

Conesa-Sevilla, J. (2019). Ecopsychology revisited: for whom do the 'nature' bells toll? Arcata, CA: Humboldt State University Press.

d'Arouet, F-M (Voltaire) (1765). *Questions sur les miracles*. p. 691



- Dennett, D. C. (1995). *Darwin's dangerous ideas*. NY: Simon & Schuster.
- Garmendia, J. I. (2001). The tale of the hedgehog. Translated by Amaia Gabantxo in *Modern Poetry in Translation*, New Series no. 18.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 162 (3859), 1243-1248.
- Hirstein, W. (2005). *Brain fiction: self-deception and the riddle of confabulation*. Cambridge, MA: A Bradford Book/MIT Press.
- Knight, F. (1921). Risk, uncertainty and profit. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Kruger, J. and Dunning, D. (1999). Unskilled and unaware of it: difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 7 (6), 1121-1134.
- Mahoney, J. (2017). Long-run development and the legacy of colonialism in Spanish America. *American Journal of Sociology*, 109 (1), 50-106.
- Pennycook, G., Cheyne, J. A., Barr, N., Koehler, D. J., and Fugelsang, J. A. (2015). On the reception and detection of pseudo-profound bullshit. *Judgment and Decision Making*, 10 (6), 549-563.
- Suloway, F. J. (1982). Darwin and his finches: the evolution of a legend. *Journal of the History of Biology*, 15 (1), 1-53.
- Spade, P. V., "Medieval Philosophy", *The Stanford Encyclopedia of Philosophy* (Summer 2018 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/sum2018/entries/medievalphilosophy/>.
- Taleb, N. N. (2007/2010). *The Black Swan: the impact of the highly probable* (2nd. Ed.-2010). London: Penguin.
- Vila-Sanjuán, S. (2020). Entrevista con Noah Gordon. La reflexión de un escritor que ha novelado la historia de los avances de la medicina. *La Vanguardia*, April 5, 2020.
- Yong, E. (2020). America is trapped in a pandemic spiral. *The Atlantic*, September, 9—Health Section.
- Acknowledgments:** My continued gratitude to C.B.C., N.H., and I.S.B. for their critical appraisal. Although some of their comments and suggestions did not make it into this final draft, I carefully weighed their concerns in the context of servicing and favoring a more “impressionistic” voice.
- Illustration:** Robert Fludd - *Utriusque cosmi maioris scilicet et minoris [...] historia*, tomus II (1619), tractatus I, sectio I, liber X, *De triplici animae in corpore visione*

**Figure 1:** A semiotic square and comparison between degrees of *agentic freedom* and epistemological probability (with ontological assumptions). The square illustrates how meaning, created and modified by a rich coda of experiences and outlooks, gives rise to a continuum of perspectives from which ‘knowledge’ is derived.

**Figure 1:** Semiotic square: **Function** (Jorge Conesa-Sevilla, 2020 ©)

## How does “nature” function? Objective/Subjective

