

SEEKING HOLISM IN THE ANTHROPOCENE: A PHILOSOPHICAL QUEST

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ABSTRACT: The epidemic of lifestyle diseases and mortality keep growing. From the culmination of multiple physical (e.g., cardiovascular diseases, Type 2 diabetes, and disorders related to inactivity), mental (e.g., depression, anxiety and suicides), and social epidemics (e.g., loneliness, racism, and gun violence), a syndemic has emerged in which one disorder increases risk of experiencing other disorders. The irony of these disorders is that they are a product of ways of living that individuals know will make them sick and likely kill them but, nonetheless continue to participate in them. It is the premise of this article that diseased ways of living are a philosophical problem that defy holism throughout Nature. Redefining Newton's *vis insita*, it is argued that Nature's holism begins with the innate force of matter and its ability to resist disintegration by opposing external forces and endeavoring to establish holistic relationships with other matter. Consciousness, learning, and knowledge are proposed to be phenomena of holism throughout Nature and are guided by Nature's holistic philosophy of "we are therefore I am." In contrast to Nature's holism, the anthropocentric philosophy promotes the divisiveness underlying the syndemic of modern times. In conclusion, it is argued that a holistic philosophy is needed to stop the physical, mental, and social syndemic of divisiveness, get humanity off the anthropocentric path of extinction, and restore individual, social, and ecological integrity to the whole of humanity.

KEYWORDS: Holism; Anthropocentrism; Self; Mind; Consciousness; Autopoiesis and Learning; Nature

INTRODUCTION

Pinched, poked, prodded, squeezed, and buffeted by philosophers, scientists, and religions, Nature has become a showy word with moral tones that make it an easy

substitute of sound for sense. The ambiguity is likely due to the “unfitness”¹ of words like “Nature,” “soul,” “mind,” and “emotions.” Words are as amorphous as the feelings and thoughts that compel humans to create them, especially the ones invented to describe things that are sensed but not seen.² Nonetheless, the compulsion to create words or anything else may say more about Nature than words can express.

Creating is the hallmark of Nature’s holistic processes.³ All creative processes bear the redundancy stamp of Nature’s parsimonious preoccupation with scaling forces, eliminating waste, and converting the phenomena of conflicting feelings and thoughts into the efficiency of a word, theory, biological processes, or a life well-lived.⁴ Nature’s holistic demands are evident in the pre-Socratic thinking about Nature as a process and not a thing. Pre-Socratic Nature was rooted in two verbs, “kosmos,” (meaning “to order,” “to arrange,” “to marshal,” and “to adorn”)

¹ Santayana, George. *Three Philosophical Poets*. In the volume of six lectures given in 1910, Santayana (1863-1952) warns poets and philosophers of the “insuperable difficulty” of attempting to express and explain the “sensations of light, movement, and form which nature arouses in us.” Santayana specifies that the difficulty results from “the unfitness of language to render what is spatial and material.” Language, according to Santayana, is only fit to “render” what is “like language itself...*bodiless and flowing*,” action, feeling, and thought”, (emphasis added).

² Snell, Bruno. *The Discovery of The Mind: The Greek Origins of European Thought*, trans. T.G. Rosenmeyer. Oxford, Basil Blackwell, 1953. Beginning with the works of Homer, Snell (1896–1986) provides insights into the thinking underlying the invention of language which, according to Snell “aims progressively to express the essence of an act, but is at first unable to comprehend it because it is a function”. One example is the Greek word for mind, “*noos*” which is defined as *an organ* that is the “recipient of clear images.” However, “*noos*” undergoes a structural (i.e., organ) to functional metamorphous. Instead of being the “the organ of clear images”, “*noos*” denotes *the functional “faculty of having clear ideas”* and from here “*noos*” became the thought that is the product of “the power of intelligence”. The structural, functional, product metamorphous of words and language continues in modern times and “Nature” the word and the concept, is no exception. However, whether it is “mind” or “Nature,” any word that covers so much structural, functional, and product territory is likely to lose its competence and meaningfulness (pp. 7-15, emphasis added).

³ Smuts, J.C. *Holism and Evolution*. Alpha edition. 2020. Discussing the “progressive development” of wholes in Nature, Smuts (1870-1950) describes this development as “dynamic, organic, evolutionary, *creative*” (emphasis added). Interestingly, as will be argued in this essay, addressing the creative aspect inherent to the development of wholes in Nature, Smut maintains that “creativity should be enough to negate the purely mechanical conception of the universe” (p. 104).

⁴ Thompson, D'Arcy Wentworth. *On Growth and Form: The Complete Revised Edition*. Mineola, NY, Dover, 1992. According to Thompson (1860-1948), words are the product of cognitive emotional scaling, however, like everything else that is the product of scaling in Nature, their effect is not in the word but rather in their “relation” to their “whole environment or milieu” (p. 24), including their effect on the internal cognitive and emotional environment from which they were created, as well as the external social environment of other words, actions, feelings, and thoughts.

and “phusis,” which means “to grow.”⁵ Nature holistic demands give humanity no choice but to strive and create; to feel, think, and act; to learn, acquire knowledge, actively participate, and enhance the holistic relationship between humanity and Nature.

Although the power of holism is expressed in Hippocrates’ “vis medicatrix natura” (i.e., the healing power of Nature,) and humanity has accumulated a body of wholeness promoting knowledge, a void persists between knowing and doing. This void is readily apparent in the use of tobacco products, consumption of highly processed foods, and inactivity, despite knowing the deleterious effects of these lifestyles. From the perspective of “feelings, thoughts, and actions,”⁶ the gap between knowing and doing is an emotional one and the power of human emotions can inspire madness in the most rational thinker.

Power is Nature’s most potent intoxicant. The intoxicating effects of power are not only apparent in the strong bonds that bind human beings to one another, but also in activities that divide people from their own body; one another, humanity, and from the whole of Nature. Inebriated with Nature’s power, human hubris was destined to distort and diminish the lofty status of Nature as a core concept of philosophy and science.

Of its many degradations,⁷ none has contributed more to the demise of

⁵ Barnes, Jonathan. *Early Greek Philosophy*. 1st ed. London, Penguin Books, 1987, pp. 18-20. Similarly, the Romans’ invention of the word “natura” is derived from the verb “nascor” meaning “to get born”. Ducarme, Frédéric, and Couvet. Denis. ‘What Does ‘Nature’ Mean?’ *Palgrave Communications*, vol. 6, no. 1, 2020, pp. 1-8.

⁶ Nietzsche, Friederich. *The Will to Power*, trans. Walter Kaufmann and R. J. Hollingdale, ed. Walter Kaufmann. 1st ed. NY, Random House, 1967, pp. 341-342. Nietzsche (1844-1900) was adamant about the primacy of “feelings, ideas, and thoughts,” as a primeval means of communicating, working together, and the measure of living a good life. Nietzsche elevates the “feelings of increase; the feeling of becoming stronger” over Darwinian survivalism. From the Nietzsche perspective, it is the pursuit of experiencing these “feelings” that serve as the motivation and basis for the ways people learn to live life regardless of their survival value.

Similarly, in Frauen’s 2023 article published in this journal, he suggests feelings may be “a form of “proto-communication” (p. 125) that can increase connectivity”. Frauen, Jan-Boje. ‘Biological Evolution, Sociocultural Evolution, Cosmological Evolution: The Search for Links.’ *Cosmos & History* vol. 19, no. 2, 2023, pp. 103-151.

⁷ Haber, Carole. ‘Anti-Aging Medicine: The History: Life Extension and History: The Continual Search for The Fountain of Youth.’ *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* vol. 59, no. 6, 2004, pp. B515-B522. One example of the intoxicating effects of power is the rise of anti-aging medicine and its quest to conquer Nature. Anti-aging medicine has not only stripped Nature of its holistic powers, but it has made Nature the enemy to be defeated in its quest for immortality.

humanity than the downgrade of Nature to a “simple tool in the hands of God...the mere material result of his action.”⁸ This downgrade fostered the rise of the anthropocentric philosophy. Embodied in neoliberal economics, anthropocentrism has become a “worldview” founded on a belief in human supremacy over “all other life forms,” that posits humans as the stewards of the Earth, and “entitles” humanity, “to use them [other life forms] and the places they live”⁹ in a manner deemed fitting to humans. Behind the anthropocentric “stewards of the Earth” cloak,¹⁰ is a philosophy of indifference, self-interest, and self-destruction that has led humanity to the brink of extinction. Standing on the precipice, humanity urgently needs a return to the holistic philosophy of Nature.

As a health psychologist, the author received post-doctoral training in epidemiology with naive expectations of discovering the etiology of inactivity and other lifestyle diseases but instead learned about reality; the reality of diseased ways of living built by humanity. Asserting their “free will”, people adopt diseased ways of living despite knowing they are destroying their bodies and increasing the likelihood of premature morbidity and mortality. The etiology underlying “diseased ways of living” is a “diseased way of thinking,” which makes the reality of inactivity and lifestyle diseases a philosophical problem.

Preserving the Greek and Roman etymological origins of the word “nature”, this essay proposes tools for a holistic philosophy founded on the concept of Nature as “the principle of birth or genesis.” It builds on the “actions, feelings, and thoughts”¹¹ that guide the autopoietic processes of learning how to order, arrange, marshal, and adorn the many who successfully strive and learn to become one. It is a philosophy of the mutual commitment and caring inherent to Nature’s holistic imperative that “one” continues to learn, grow, and become more than the whole that is greater than the sum of many. Finally, it is argued

⁸ Ducarme and Couvet, ‘What does Nature Mean?’ pp. 1-8.

⁹ Crist, Eileen. ‘Reimagining the human.’ *Science* vol 362, no. 6420, 2018, pp. 1242-1244.

¹⁰ The notion that humans are “stewards” of the planet is perhaps another example of anthropocentric hubris. For 4.5 billion years, Earth has existed among other cosmic titans. It has not only endured the shock of meteors that drove dinosaurs into extinction, but the Earth has also given birth to biological life and worked with it, setting an evolutionary trajectory that has led to the evolution of humanity. Older and holistically wiser, the Earth does not need the stewardship of humanity, but humanity needs to join the rest of biological beings and learn how to holistically work with Earth and all of Nature.

¹¹ Santayana, *Three philosophical poets: Lucretius, Dante, and Goethe*.

that a holistic philosophy is needed to repossess the individual and social consciousness of humanity and to get it off the dead-end path it is currently on.

DEFINING “NATURE” AND “NATURE”

Building on concepts set forth by pre-Socratic philosophers, this essay proposes that strife and striving¹² define the *nature* of chaos and defines *Nature* as the orderly whole¹³ of chaos that is greater than the sum of its chaotic phenomena. Specifically, the same phenomena of energy, forces, power, and work are converted from chaos to order. However, the conversion can only happen when “self-organized” chaotic phenomena becomes a structure, the contained space of which maintains the work of being a self-organized structural and functional whole.¹⁴ The power derived from the self-organization of chaos is Nature’s holistic

¹² Barnes, ‘Early Greek Philosophy’ 1987. Ancient Greek philosophers not only conceptualized motion as essential wholeness but that manifestation of opposites in motion were essential for things to come into being and “become one from many”, (Anaximenes, p. 77). According to Empedocles, “Love and Strife” (p. 165) are the two opposite and primary moving powers in Nature. Strife is the force that divides “one into many” (p. 166, p. 169). In this essay striving replaces “Love” as the force that brings many together and compels them to work together and grow together to become “one alone from being many”. Love remains a force in Nature but functions as an integrating force holding “many” together as they strive to be “one”. In this *holding together* capacity the force of Love must be greater than the forces of strife and striving and thus joins with nuclear, electromagnetic, and gravitational forces as one of Nature’s strongest forces.

¹³ Bohm, David “*Wholeness and the Implicate Order*.” 7th ed. London, Ark Paperbacks, 1992. Bohm (1917-1992) adds to the ancient concept of wholeness when he describes it as an endless “flow” of processes from which a structural unity like the whole of Nature, the universe, Earth, biological cells, the human body, or human societies is formed, maintained, and enhanced. Thus, wholeness in Nature depends upon the inseparability of orderly processes and their structures. Moreover, the unity of structure and their orderly processes manifest in “the growth of a living being... evolution of species... society... musical composition” and other works of art. Like Santayana (see note i), Bohm states the “notion of order is so vast and immense in its implication” that it “cannot be defined by words,” but is known “implicitly” (p. 115) as something that humanity has always “sensed” and been guided by in their quest for integrity and “to make life worth living” (p. 3).

¹⁴ Kauffman Stuart A and Gare, Arran. ‘Beyond Descartes and Newton: Recovering Life and Humanity.’ *Progress in Biophysics and Molecular Biology*, vol. 119, no. 3, 2015, pp. 219-44. Referring to everything in the universe, Kauffman and Gare state that “all is a becoming not a being.” However, “becoming” order from chaos implies there are unities in the universe that have structural boundaries within which they maintain their individual integrity as a unity while converting their chaotic interactions into a self-organized body of work. Thus, borrowing from Maturana and Varela’s concept of autopoietic organization, it reasons that the “being” of all unities that exist in Nature is continuously “becoming” in the autopoietic sense of “self-producing.” At the same time, all “becoming” is the continuous autopoietic process of “being” the product “self-production.” Thus, all “being” keeps up the self-organization of the past while making self-modifications to accommodate the demands of “being” in the present to continue “self-production” and

power of knowledge. The subsequent evolution of chaos with cosmic, biological, and social whole beings is necessarily the co-evolution of Nature's holistic power of knowledge.

“IGNORATO MOTU, IGNORATUR NATURA”¹⁵

Since the time of the ancient Greek philosophers, there has been agreement that without motion, everything falls apart.¹⁶ However, understanding how motion holds everything together remains a mystery. The four elements, eternal circular motion, strife and striving (love), pleasure and life, and the soul, are the philosophical offerings of the ancient Greeks struggling to explain motion and the “threads of gold” that went into the fabric of science they were weaving.

Despite evolving into the rigorous scientific methods of inquiry that demand logical explanations for the mysteries of Nature and the phenomena of the natural world, scientific progress remains dependent upon its symbiotic relationship with creative and even irrational thinking.¹⁷ Consequently, the fabric of science has acquired many loose threads, not because of its failures, but precisely because of its successes.

When looking down from the dizzying heights of humanity's lofty perspective, mental safety dictates a reductionist approach to avoid the insanity of trying to comprehend Nature's infinite spacetime from the confines of a finite existence. Chaotic strife and striving will always outpace the scientific achievements to which they give birth because scientific achievements will always bring out new and better unknowns festering in the chaos of creativity. Consequently, reductionism breeds specialists, each focused on smaller, esoteric problems

“become” a viable “being” in the future. The preceding seems to fit Maturana and Varela's proposition that “living *beings* are...continually self-producing” (emphasis added). (Maturana, Humberto R. & Varela, Francisco J. *The Tree of Knowledge: The Biological Roots of Human Understanding*. Revised ed. trans. Robert Paolucci. Boston, MA, Shambala, 1987, p. 43).

¹⁵ Loosely translated, the axiom “to be ignorant of motion, is to be ignorant of nature” is attributed to Thomas Aquinas (1225-1274).

¹⁶ Barnes, *Early Greek Philosophy*, 1987.

¹⁷ Popper, Karl. *The Logic of Scientific Discovery*. 4th ed. London, Routledge, 1997, 31-32. Popper (1902-1994), put the invention of a theory on a par with the act of creating a “musical theme” or “a dramatic conflict” in that none of these creations call for or are susceptible to logical analysis. Not only did he argue that “there is no such thing as a logical method of having new ideas” he further stated, “that every discovery contains ‘an irrational element,’ or a ‘creative intuition’ in Bergson's sense.”

forcing “scientists to investigate some part of nature in a detail and depth that would be otherwise unimaginable.”¹⁸

Bloom calls the detail and depth of specialists the “charm of competence.”¹⁹ Although specialists can rationally demonstrate an unrivaled clarity about a part, it comes at the expense of “ignoratur Natura.” Consequently, despite having much to say about a magnified part, the “detail and depth” of scientific specialists offers little for the person confronting the “big picture”; the reality of trying to figure out how to live a good life in a world of chaos.

THE BURDEN OF NEWTON

Building on the work of the ancient philosophers, Newton gave the quest to understanding Nature and motion a new direction when he said, “...the whole burden of philosophy seems to consist in this—from the phenomena of motion to investigate the forces of nature, and then from these forces demonstrate other phenomena.”²⁰ It is precisely the “other phenomena,”²¹ especially the phenomena of quantum wave-particles that has brought the symbiotic relationship between philosophy and science back to the forefront of investigation. Moreover, the science that investigates the matter of parts does not necessarily investigate the specific “forces by which the particles of bodies...are either mutually impelled towards one another, and cohere in regular figures, or are repelled and recede

¹⁸ Kuhn, Thomas S. *The Structure of Scientific Revolutions*. 3rd ed. Chicago, University of Chicago Press, 1996, p.24.

¹⁹ Bloom, Allan. *Love and Friendship*. 1st ed. NY, Simon & Schuster, 1993, p. 470. The charm is in how the specialist fulfills the dignified and seductive quest for knowledge and acquires the power that comes with it. The specialist can rationally demonstrate their power of control over a part that no philosopher or other student of holism can make. Perhaps intoxicated by the power of knowledge, specialists will often “attempt to force nature into the preformed and relatively inflexible box” that their scientific paradigms have built (Kuhn, *Structure of Scientific Revolution*, p. 24). As Bloom notes, the work of the specialists has practical implications in that specialists teach people what not to do (e.g., do not smoke, eat less processed foods, avoid excess salt, sugar, and fats, lower alcohol consumption), but when it comes to learning how to live a good life; make oneself whole and happy, people are on their own or at the mercy of the merchants and marketers of happiness.

²⁰ Newton, Isaac, and Horace Standish Thayer. *Newton's Philosophy of Nature: Selections from His Writings*. 3rd ed. NY, Hafner Publishing Company, 1965, p. 10.

²¹ In addition to Newton's forces, in this essay energy and power are considered “other phenomena”, as are the products of these phenomena as they combine and manifest in chaotic commotion or the orderly work of holism.

from one another.”²² Despite much progress, the specificity of phenomena that impel or repel, cohere or disintegrate, remain as unknown in these divisive times as they were in Newton’s time. Humanity’s future depends on a paradigm shift from investigating the phenomena of motion to studying the phenomena of holism.

INTEGRITY: THE INNATE FORCE OF MATTER

Newton’s third definition states the “vis insita” (the innate force of matter) is the force matter exerts to resist external forces imparted upon it and any change in its activity, be it a change from rest to motion, or altering its line of motion.²³ However, this was before quantum physicists discovered that just trying to observe and measure quantum wave-particles altered their motion.²⁴ Consequently, the behavior of quantum wave-particles refutes Newton’s “vis insita” definition but raises the question of what was innately resisted by the matter Newton observed.

It is hereby proposed that Newton’s “vis insita” is the innate force of integrity that is exerted by matter (i.e., a body)²⁵ to resist disintegration while striving to maintain integrity. The conceptualization of integrity as the body’s innate force is supported by Newton’s first definition, in which the “vis insita” is a function of the

²² Newton & Thayer, *Newton’s Philosophy*, pp. 10-11.

²³ *Ibid.* pp. 12-13.

²⁴ It was also before the Hawthorne effect showing that just the thought of being observed alters people’s behavior. (McCambridge, Jim, John Witton, and Diana R. Elbourne. ‘Systematic Review of The Hawthorne Effect: New Concepts Are Needed to Study Research Participation Effects.’ *Journal of Clinical Epidemiology*, vol. 67, no. 3, 2014, pp. 267-277). There is no external mechanical force applied when observing quantum particles or the participants of Hawthorne study. If the act of observing exerts a force on quantum particles and people, then it reasons that people and quantum particles possess an action initiating innate force that is sensitive and responsive to the forces exerted by an observer when focused on making an observation. Moreover, on the human plane of existence, the behaviorally altering effect that results from “just the thought of being observed” has been exploited socially as a means of cultivating prosocial behavior (Norenzayan, Ara, and Azim F. Shariff. ‘The Origin and Evolution of Religious Prosociality.’ *Science*, vol 322, no. 5898, 2008, pp. 58-62.), as well as controlling human behavior via social comparison (Pugh, Allison J. *Longing and Belonging: Parents, Children, and Consumer Culture*. 1st ed. Berkely, Univ of California Press, 2009) and governance (Foucault, Michel. *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan. 2nd ed. NY, Vintage, 1995, pp. 195-228).

²⁵ In his first definition of the Principia, Newton explains that he uses the terms “body” and “mass” interchangeably to describe the “density and bulk” of matter. In this essay Newton’s concept of “body” is applied to quantum wave-particles as well as other matter. Newton, Isaac, and Horace Standish Thayer, 1965, p. 12.

“density” of its “matter” and implicit to the laws of conservation pertaining to energy and mass.²⁶ Thus, density of coherence, be it the nucleons of an atom, cells of a biological being, scientists supporting a paradigm, or citizens of a society, is critical to preserving integrity under strain.

Exerting its innate force implies a body’s ability to sense the distinction between integrity and strain. Newton states, “the exercise of this [innate] force may be considered both resistance and *impulse*; it is resistance so far as *the body*, for maintaining its present state, *opposes* the force impressed; it is *impulse* so far as *the body* by not easily giving way to the impressed force of another's, *endeavors* to change the state of that other” (emphasis added).²⁷ The words “oppose” and “endeavor” are verbs that describe acts predicated on a change in the state of the body.

Newton, however, suggests this change is not necessarily from rest to motion when he writes, “motion and rest, as commonly conceived, are only relatively distinguished; nor are those bodies always truly at rest which commonly are taken to be so.”²⁸ The explanation implies that the innate force combines with external forces imparted upon its body to initiate change to its relative state of motion (i.e., from resting rate to a non-resting rate of opposing and endeavoring the impact of external forces). Thus, the innate force of matter is a constant against the variability of external forces imparted upon its body because it is the body. Its strength of resistance and ability to sustain, combine, and convert external forces into endeavors are functions of the internal integrity of its body (i.e., the density of its mass).

THE BURDEN OF INVESTIGATING HOLISM²⁹

There is a cause-and-effect paradox in Newton’s first two laws of motion. If the

²⁶ The first law of thermodynamics is the conservation of energy which states that energy can be neither created nor destroyed. Based on Einstein’s equation $E=mc^2$, mass is the constant in the energy-motion equation and thus, is neither created nor destroyed during interactions (e.g., chemical reactions). In other words, the integrity of mass is innately conserved during chemical interactions or any other interactions with other bodies of energy, forces, or powers.

²⁷ Newton and Thayer, 1965, p. 13.

²⁸ Ibid. p. 13.

²⁹ Smuts, *Holism*, 2020. Although Smuts defines a “natural whole” as being comprised of “parts,” the innate force of matter is invoked when he describes the “source of its [natural whole] activity is internal and of a

exertion of a force is needed to initiate or alter the motion of mass, and the accelerated motion of mass is needed to exert a force, then Nature's forces, motion, and mass do not exist independent of one another. Moreover, external forces and motion originate from the innate force of matter, which in turn is dependent upon interactions with the innate force of other bodies. As one of Nature's "other" phenomena, Philosophy is then obligated to investigate the body's innate force of opposing disintegration while endeavoring to convert the phenomena of chaotic commotion into the phenomena of co-operative holistic relationships. This investigative burden belies a mechanical approach and instead calls for a psychological perspective to tackle this task.³⁰

OVERVIEW: THE PHENOMENA OF HOLISM

The transition from phenomena of chaotic commotion to phenomena of holistic motion is a primordial function of multiple bodies striving to become one body. Striving alters the working relationship between multiple bodies and their innate forces in a way that maintains the integrity of each individual body while giving rise to a holistic *consciousness*, a sense of their collective cohering momentum. However, holistic consciousness does not maintain the momentum of coherence. Primeval feelings of coherence give rise to primeval thoughts, both of which compel the innate force of each body to *learn* how to maintain the momentum of their collective coherence. Accordingly, each innate force *learns* how to regulate the degree to which it opposes the innate forces of other bodies while optimizing

piece with itself, is indeed itself" (p. 101). The burden is to investigate the "natural whole" from the perspective of the innate "self" that is "created and organized" with the "self-organization and self-creation" of a body.

³⁰ Smuts, *Holism*, 2020. Alfred North Whitehead. 'Science and Philosophy.' In Sax Commins & Robert N. Linscott, ed. *Man & the Universe: The Philosophers of Science*. 3rd ed. NY, Washington Square Press, 1969; Smuts warns against the "philosophical misconception" of perceiving the universe or any other "natural whole" as an "absolute whole...immutable, withdrawn in itself" which seems compatible with Smuts description of the "still more dangerous scientific misconception" of natural wholes as "mere mechanical system[s]...absent of all inwardness, of all inner tendencies and relations and activities" (pp. 102-103). The need for a psychological approach to investigating Smuts "natural wholes" is emphasized by Whitehead (1861-1947) based on his description of how "parts of the body are really portions of the environment of the total bodily event, but so related that their *mutual* aspects" give rise to the "intimate character of the relation of whole to part...they are peculiarly sensitive, each to modifications of the other" (emphasis added). Whitehead further notes that the "relation of parts to whole...in which the part is for the whole...reigns throughout nature" (p. 352). It is the reciprocal relations between the "natural whole" and its "parts" that Whitehead uses to illuminate the "relation of psychology to physiology and to physics" (p. 353).

its endeavors to maintain the coherence of working with other bodies. Holistic *knowledge* is the product of learning. It manifests as a heightened sensitivity to feelings of strain versus integrity relative to their coherence and the ability for all to immediately and efficiently act to maintain the integration of their incipient body.

Although the whole of Nature is ultimately the body in which all subsequent bodies evolve, Nature's primordial phenomena of consciousness, learning, and knowledge have had to co-evolve with the evolution of increasingly composite and complex whole beings. Human consciousness, learning, and knowledge has evolved from the holistic phenomena of cosmic and biological whole beings and thus, understanding the phenomena of holism will likely fall short when investigated as a strictly anthropocentric phenomenon. There is compelling evidence for investigating holistic working relationships established over eons among bodies and their innate forces which may provide insights into how consciousness, learning, and knowledge have evolved and manifests in human beings.³¹

The Phenomena of Consciousness. As the constant in Newton's force-motion equations, scientists can calculate the mass of a given body from its forces and motion. However, when measures of galactic motion and gravitational forces are used to calculate the density of mass in the universe, the numbers come up short. Consequently, astrophysicists have concluded the universe is mostly made of "dark energy" and "dark matter" (i.e., approximately 70-75% and 25%,

³¹ Allman, John Morgan. *Evolving Brains*. 1st ed. NY, Scientific American Library, 1999. Allman notes the evolution of receptors in bacteria (e.g., *Escherichia coli*) preceded that of the nervous system and the brain. Nonetheless, consciousness, learning and knowledge are implied in Allman's description of bacteria performing "brainlike processes" by exhibiting "remarkable complex behavior;" they use their receptors to "sense their environment" to locate resources and avoid toxins (p. 3). Other research supporting consciousness, learning, and knowledge as biological phenomena include Jacobsen, Rowan. 'Minds Everywhere: Tiny Clumps of Cells Can Learn, Form Memories and Make Big Decisions-Key Parts of Thinking. Yet They Don't Have Brains.' *Scientific American*, vol. 330, no. 2, 2024, pp. 44-51; Plotnik, J. M., Lair, R., Suphachoksakun, W., & de Waal, F. B. 'Elephants Know When They Need a Helping Trunk in a Cooperative Task.' *Proceedings of the National Academy of Sciences*, vol. 108, no. 12, 2011, pp. 5116-5121.; Heinrich, Bernd, & Bugnyar, Thomas. 'Just How Smart Are Ravens?' *Scientific American*, vol. 296, no. 4, 2007, pp. 64-71; and Dehaene, S., Izard, V., Pica, P., & Spelke, E. 'Core Knowledge of Geometry in An Amazonian Indigene Group.' *Science*, vol. 311, no. 5759, 2006, pp. 381-384.

respectively), and both defy human sensory capabilities.³² Despite the “inability to directly detect and identify them”³³ these forces are known by their respective effects. Accordingly, the anti-gravity effects of *dark energy* are believed to create “cosmic voids” and underlie the expansion of the universe.³⁴ In contrast, *dark matter* has an integrative effect. Not only is it the force behind the construction of the “cosmic web”³⁵ but it also serves as the scaffolding of consciousness along which forces/mass/motion are brought together.

As scaffolder and conductor, Nature’s holistic consciousness is a system of feelings and thoughts. It serves as the platform from which whole beings of the past have autopoietically emerged and evolved into those that exist in the present, working together to build a future of more highly evolved individual beings.³⁶ The evolution of whole beings has been driven by strain on the integrity of bodies embedded in the cosmic web. Sensing the strain, Nature’s holistic consciousness

³² The existence of “dark matter” that is not visible to the human eye, even with the aid technology, reflects the limits of human sensory capability but not the affective-cognitive capabilities to study their effects. However, the term “dark energy” is somewhat misleading in that it has been described as matter; “an unidentified substance that exerts a kind of antigravity force on the universe as a whole” (Conselice, Christopher J. ‘The Universe’s Invisible Hand.’ *Scientific American* vol. 296, no. 2, 2007, pp. 24-31).

³³ Randall, Lisa. ‘What Is Dark Matter?’ *Scientific American* June 1, 2018 (<https://www.scientificamerican.com/article/what-is-dark-matter/>) Human senses originate in electromagnetic interactions which accounts for the ability to see the electric charges carried by the electrons and protons in atoms that make up much of the matter in the universe. However, not all matter is composed of atoms, but all matter interacts with gravity and consequently becomes “clumped into galaxies and galaxy clusters.” Accordingly, it may be that the thoughts and feelings people experience but cannot see are also “clumped” together into clusters of thinking, acting, and living.

³⁴ Lemonick, Michael D. ‘How Analyzing Cosmic Nothing Might Explain Everything.’ *Scientific American*, vol. 330, no. 1, 2024, pp. 20-27. The idea that the forces of “dark energy” can manifest in “empty space” belies the presence of their mass equivalence. Before the discovery of “dark energy” Bohm stated that “what we call empty space contains an immense background of energy, and that matter as we know it is a small ‘quantized’ wavelike excitation on top of this background, rather like a tiny ripple on a vast sea.” (Bohm, Wholeness, p. 191). Bohm’s statement is supported by the discovery that “cosmic voids,” the products of dark energy, are not empty spaces but a dynamic space through which quantum neutrinos are continuously streaming in and out.

³⁵ Ibata, Rodrigo A. and Geraint, Lewis F. ‘The Cosmic Web in Our Own Backyard.’ *Science*, vol. 319, no. 5859, 2008, pp. 50-52. Ibata and Lewis state that “dark matter is by far the dominant mass in the universe, and all visible material, such as stars and gas, essentially only goes along for the ride.”

³⁶ Smuts, *Holism*, 2020. Smuts notes that whole beings are primarily sensed as “objects” in space but the fact that becoming and being whole is an “event” in time is often overlooked. Moreover, Smuts emphasizes that whole beings are “moving and active” in spacetime and that to grasp a better understanding Nature it is essential to “habituate ourselves to look upon material bodies or things as events, as centres of happenings” (p. 111).

conducts the mass of chaotic phenomena to a contained space.³⁷ Upon containment, the innate forces of chaotic masses interact with one another, giving rise to a new sense of coherence that becomes their holistic consciousness. Guided by their common sense of coherence, the phenomena of holistic learning and knowledge emerge and a new whole-being is born.

The Phenomena of Learning and Knowledge. “Learning is a fact of nature.”³⁸ It makes equilibrants of the innate forces of many striving to equilibrate the chaotic phenomena of their containment into the coherent phenomena of holistic contentment. Unlike the equilibrium that results from mechanical equilibrations, holistic equilibrations produce a ratio of opposing and opposite forces the imbalance of which is optimal for maintaining integrity and the work of holism. Varying over time and under the strain of novel chaotic conditions, learning anew will be required to equilibrate a new imbalance, optimal for maintaining integrity.

The holistic phenomenon of knowledge represents refinements made during the process of learning how to efficiently equilibrate chaos to order. Thus, the innate force becomes an increasingly efficient equilibrant as its equilibrating knowledge grows and its sensitivity to subtle imbalances heightens. Knowledge is thus the power exerted by the innate force to initiate the right measure of work

³⁷ For instance, cells of galaxy clusters within the cosmic web, star systems within galaxies, microbes within membranes of a cell, cells within the contained space of a body, or human beings within the contained space of Earth.

³⁸ Hilgard, Ernest R. *Theories of Learning*. 1st ed. NY, Appleton-Century-Crofts, 1948, pp 4-15. As “a fact of nature,” Hilgard (1904-2001) suggested learning was “like the facts of growth, reproduction, or heredity,” and “in need of explanation if we are to understand the organism’s relationship to its environment.” His definition of learning as a “process by which an activity originates or is changed” has a striking resemblance to Newton’s first law of motion and implies that forces are exerted during the learning process, and they manifest in the initiation and or alteration of actions and behaviors. Consequently, like forces and motion, learning and the behaviors it initiates or changes are inseparable from one another and, just as mass the constant in the force-motion equation, the Self is the constant striving to learn how to maintain and enhance the integrity of its body in and with the whole of Nature. Although Hilgard calls this aspect of the learning process “dynamic equilibria” (versus holistic equilibrations), learning as an equilibrating phenomenon of autopoiesis is supported by Maturana and Varela who describe “learning” as a “phenomenon of transformation of the nervous system associated to a behavioral change.” Consequently, equilibrations are continuous environmental dynamics with the biological beings learning to live within it. As a function of equilibrating dynamics, Maturana and Varela state that “[T]he notion of acquisitions of representations of the environment or of acquisition of *information* about the environment in relation to learning, do not represent any aspect of the nervous system” (Maturana & Varela, *Autopoiesis and Cognition*, 132-133).

needed to order, arrange, and marshal the ratio of opposing and opposite forces that are optimal for maintaining the integrity of its body under variable conditions. Knowledge manifests in the holistic feelings of integrity shared by the many who learned to be one.

The power of holistic knowledge is evinced in the momentum it gives to the feelings of integrity. Although, there is no disputing the claim that feelings, and the thoughts associated with them, are “personal,” the phenomena of feelings and thoughts transcend the individual; they permeate Nature’s cosmic web of holistic consciousness and, in so doing, facilitate the evolution of the phenomena of holism. To this day, Nature’s primordial feelings and thoughts are the drivers of holistic consciousness, learning, knowledge, and actions that emerge from them.

From quantum particles to massive cosmic bodies and the mass of humanity, innate forces, perforce, have evolved sensually to meet the growing holistic demands of bodies evolving within the bodies of other whole-beings and Nature. This suggests that with each evolutionary advancement the scope and depth of holistic feelings of integrity and the phenomena of holism; consciousness,³⁹ learning, and knowledge have had to exponentially increase. The impetus for the sensual evolution of the “vis insita” is the co-evolution of chaotic phenomena that has been tagging along for the ride throughout spacetime.

Sensuality and the phenomena of holism have been conserved for eons in the innate forces of evolving bodies. They are the “driving principle” for consciously “connecting,” collectively learning, and acquiring the power of knowing how to work together to further advance Nature’s “order to chaos” adorning imperative. However, to grow from sensually experiencing the wholeness power of Nature requires the strength of integrity, and the stable, coherent contentment of becoming and being whole in and with Nature. Whole beings never retreat from

³⁹ Rose, Steven. *The Future of the Brain: The Promise and Perils of Tomorrow's Neuroscience*. 1st ed. NY, Oxford University Press, 2005, pp. 166-167. Rose noted the temporal continuity of consciousness does not amount to the sum of past + present + future. Consciousness is a recursive combination of these temporal and other factors. For humanity, some of these other factors include past experiences, goals for the future, present and future intentions, as well as the cultural and social norms that influence human conduct. The English author, artist, and philosopher Samuel Butler also implies a continuity and recursion of processes, functions, and their products in describing life as a conscious continuum along which the “conscious strivings of one generation” become “the physiology of a future generation via a material basis of heredity.” Margulis, Lynn & Sagan, Dorion. *What is Life?* Simon and Schuster, 1995, pp. 183-187.

advances made in and with Nature. If their holistic phenomena are less than the chaotic phenomena that has co-evolved with them, whole beings will go extinct, but they never devolve into beings that are less than the whole-beings from which they evolved.

Feelings: From Coherent Motion to Integrity. When primordial consciousness brings multiple bodies together in a contained space, their chaotic commotion is converted into “coherent motion”.⁴⁰ It is the *feeling* of coherence that compels individuals to stick together and gives rise to holistic consciousness; their common sense of cohering. Holistic consciousness gives depth to feelings of coherence, the density of which produces a scaling effect as their common sense of coherence escalates into the strong force of integrity. As the strength of their integrity permeates consciousness, other feelings emerge, including a mutual

⁴⁰ In a review of the research by Wu et al. (Wu, Kun-Ta, Jean Bernard Hishamunda, Daniel TN Chen, Stephen J. DeCamp, Ya-Wen Chang, Alberto Fernández-Nieves, Seth Fraden, and Zvonimir Dogic. ‘Transition From Turbulent to Coherent Flows in Confined Three-Dimensional Active Fluids.’ *Science* vol. 355, no. 6331, 2017, eaa1979), Alexander Morozov discussed how active fluid confined in a channel with a square cross-section self-organized their “random motion...into coherent, unidirectional flow.” In contrast, active fluid confined to a “non-square (i.e., rectangular) channel...resulted in random (chaotic) movement through the channel.” Morozov notes the “intriguing interplay between the fluids activity [chaotic versus orderly] and *confining geometry*” (emphasis added) speaks to the importance of the role the integrity of the body and its contained space play in facilitating coherence or chaos. Morozov, Alexander. ‘From Chaos to Order in Active Fluids.’ *Science* vol. 355, no. 6331, 2017, pp. 1262-1263.

Bertalanffy, Ludwig von. *Problems of Life. An Evaluation of Modern Biological Thought*. 1st ed. NY, Harper Touchbooks, 1960, p. 139. Biologically, confinement is more important to coherence and orderly processes than the geometry of human-made structures. von Bertalanffy (1901–1972) noted that throughout biology “there is no rigid organic form as a bearer of the processes of life, rather there is a flow of processes, manifesting itself in apparently persistent forms.” Chemists have also supported the importance of being “self-bound” as a minimal and common criterion of life (Luisi, Pier Luigi. ‘Defining the Transition to Life: Self-Replicating Bounded Structures and Chemical Autopoiesis.’ In Wilfred Stein and Francisco J Varela, eds. *Thinking About Biology: An Invitation to Current Theoretical Biology*, vol. 3, Reading, MA, Addison Wesley, 1983, pp. 17-39; Shapiro, Robert. ‘A Simpler Origin for Life.’ *Scientific American* vol. 296 no. 6, 2007, pp 46-53).

Although a contained space is necessary for the biological transition from chaotic phenomena to coherent motion it does not guarantee it. If the chaos to coherence transition does not occur early in the incipient development of a unity the orderly processes and work of holism will be impaired and malignancy will ensue (Ho, Mae-Wan, and Popp, Fritz-Albert. ‘Biological Organization, Coherence, and Light Emission From Living Organisms.’ In Wilfred Stein and Francisco J Varela, eds. *Thinking About Biology: An Invitation to Current Theoretical Biology*, vol. 3, Reading, MA, Addison Wesley, 1983, pp. 183-214). A critical factor for making the chaos to coherence transition is the “tendency towards condensation” which gives rise to Newton’s *Vis insita*; the force of integrity that emerges from the densification that makes the whole of many greater than their sum. (Iberall, Arthur S. ‘On the General Dynamics of Systems.’ *General Systems Yearbook*. XV, 1970. 7-13).

sense of commitment to and caring about the integrity that has transformed many individuals into one body.

Feelings and Mutations. The adjective “mutual” and the noun “mutation” originate from the same Latin verb “mutare” which means “to change”. When multiple individuals consciously commit to “sticking together,” their feelings mutate their collective way of thinking and acting.⁴¹ Visually, the changes are not immediately apparent because the mutation is from being meaningless individuals in a contained space, to being meaningful *coordinates* of their unity.⁴²

As a result of mutation, the innate force of each coordinate manifests a heightened sense of caring about the integrity of their body making it difficult, if not impossible, for body and coordinates to exist independent of one another. The holistic significance of caring has been most evident in the innate force of biological beings, as the scope of sensitivity had to co-evolve with the power to move through space and interact in environments fraught with perils. However valuable avoiding perils may be, the driving force underlying the evolution of sensitivity are the holistic needs of consciousness, learning, and knowing how to boldly participate as a coordinate of the ecological order and disorder from which biological beings emerged, and upon which their existence depends.

Consequently, with each evolutionary advancement comes the demands of a mutual commitment to and caring about individual integrity in and with larger domains of holistic integrity. These demands have resulted in mutations in the

⁴¹ Rueckert, William. ‘Literature and ecology: An experiment in ecocriticism.’ *Iowa Review* vol, 9, no. 1, 1978, pp. 71-86. Although Rueckert (1926-2006) speaks of the “mutual interconnectedness” of all life systems on Earth, he is clear that it is the mutual commitment of all life systems and their ecosystem that has a transformative effect that enhances all living beings and their interconnectedness. In contrast, the anthropocentric philosophy recognizes humanities mutual interconnectedness with the Earth and all biological life forms but from the perspective of being superior to all other life systems and thus entitled to exploit and use the Earth, its resources, and life systems to maximize its ill-perceived superiority. Accordingly, the transmutative effect of anthropocentric mutual interconnectedness is to make something less of all that is “mutually interconnected.”

⁴² Building on Bohm’s discussion of “coordinates,” its use in this essay is based on its etymology as it relates to order as a defining feature of Nature. Accordingly, the word coordinate originates from the Latin prefix “co-” meaning “together” and the verb “ordinare” meaning “to order.” If “many” are to become “one” they must collectively create order from their chaotic interactions with one another. Sensitivity “to a relationship that remains invariant” and creativity are implicit to this holistic use of coordinates. Be it the whole of many quanta, cells, or individuals, their integrity is a continuous process of learning how maintain and enhance the order from which the unity of cosmic, biological, human, and social beings is born. (Bohm, 1983, pp. 113-114).

innate forces and their bodies. As the latest biological advancement, the human body's innate force of integrity has mutated as the scope of its domains of mutual commitment and caring encompasses its unity in and with the infinite whole of biological life, Earth, and Nature.

FEELINGS AND THE SELF

Unseen, inexplicable, and ubiquitous, feelings have always been an enigma to humanity. Although ancient Greek philosophers initially attributed feelings to the intercession of deities, human agency soon rose to the fore. Ancient lyricists argued feelings were a "personal matter," uniquely experienced by each person. However, distinct from "the functions of the physical organs" and otherwise having no empirical reality, the ancients, confounded in their efforts to ascribe feelings to a bodily structure, concluded humans have a "soul." Philosophically the "soul" accounted for human feelings, but it left the body out of the philosophy of being human.⁴³

The philosophical error is understandable considering humanity's perspective begins with eyes that cannot see everything humans feel, and is shaped by a way of thinking that must protect integrity from the sensual power of being the most highly evolved biological being on Earth. Philosophically, humanity has not caught up with its biological and sensual evolution. Consequently, the mechanistic, reductionistic ways of thinking have yet to evolve into a holistic philosophy that disposes of the disembodied "soul" and acknowledges the Self as the body's center of feelings.

The human body's innate force is a highly evolved composite and complex sensory organ that Kohut defined as the "nuclear Self."⁴⁴ The sensual demands of the Self have given rise to sensory cells and organs, a nervous system, and brain to accommodate its integrity function of opposing disintegration of its body while endeavoring to maintain the integrity of its body's coordinates as well as other bodies (human and non-human). Thus, as "our *sense* of being an independent

⁴³ Snell discusses Homer's use of the word "psyche" as "the breath of life" and in so doing, he says Homer's use of "psyche...evoked the notion of an eschatological soul." (Snell, *Discovery of Mind*, p. 9).

⁴⁴ Kohut, Heinz. *The Restoration of the Self*. 1st ed. NY, International University Press, 1977. Just as the *sense* of sight, sound, smell, taste, and touch are ascribed to structures (i.e., sensory organs), Kohut (1913-1981) ascribes the *sense* that our "body and mind form a unit in space and continuum in time" to the structure he called the "nuclear self" (p. 177).

center of initiative and perception, integrated with our most central ambitions and ideals,”⁴⁵ the human Self has “agency.”

EVOLUTION OF THE BIOLOGICAL SELF

Initiating movement through and interacting within an ecological niche required the biological Self and its body of coordinates to work together and co-evolve motility and sensing structures before developing a nervous system.⁴⁶ The coevolution of motility and sensory structures enabled the Self to fulfill its resisting disintegration function (e.g., by avoiding environmental toxins) and

⁴⁵ Ibid. p. 177. Like other centers of forces in Nature, Kohut’s Self should correspond with Newton’s centripetal force and its three quantities (i.e., absolute, accelerative, and motion). Just as Newton’s centripetal force acts as a center that resists the receding tendency of planets (i.e., coordinates of a solar system) and other bodies revolving or working around the center (Newton & Thayer, *Newton’s Philosophy*, p. 14), the *absolute* quantity of the Self, acts as an integrating and “organizing center” that is functionally energized and strengthened by the efficacy and efficiency with which its body of coordinates systematically work with one another. The *accelerative* quality of the Self is like other centers in that the velocity (i.e., rate of acceleration) toward or away from the center is a function of an object’s distance from the center (i.e., the Self). However, with the highly evolved Self, its accelerative quantity can be a function of physical and or psychological distance whereby the rate of acceleration towards or away from the Self increases as objects become more proximal to the Self and decrease with distance from it. Newton defines the *motive* quantity of a centripetal force as the “centripetency or propension of the whole body towards the center” also corresponds with the work of the body’s coordinates relative to the Self. This centripetal motive “is always known by the quantity of an equal and contrary force just sufficient to hinder the descent of the body.” (p. 16) For the whole of Self/body/coordinates, the motive quantity is expressed in the equal and contrary forces of metabolism (i.e., the ratio of anabolism to catabolism), pressures (e.g., systole, diastole; osmotic), and the ratio of agonist to antagonist muscular forces that produce movement. It is the whole these three quantities of Self/body/coordinates that allow the Self to initiate interactions within its ecological niche and exercise its “skills and talents” in a way that facilitates growth as well as increases the cohesion and vigor of Self/coordinates/body as a unity in spacetime (Kohut, *Restoration*, p. 135). Finally, Kohut further describes the Self as “a center of initiative; a unit that tries to follow its own course” (p. 245). Thus, as a center of action-initiatives, the *absolute* , *accelerative* , and *motive* quantities of the Self replace the concept of the soul that many pre- and post-Socratic philosophers considered as the origins of motion.

⁴⁶ Miyata, M., Robinson, R. C., Uyeda, T. Q. P., Fukumori, Y., Fukushima, S. I., Haruta, S., Homma, M., Inaba, K., Ito, M., Kaito, C., Kato, K., Kenri, T., Kinoshita, Y., Kojima, S., Minamino, T., Mori, H., Nakamura, S., Nakane, D., Nakayama, K., Nishiyama, M., ... Wakabayashi, K. I. ‘Tree of Motility - A Proposed History of Motility Systems in the Tree of Life.’ *Genes to Cells: Devoted to Molecular & Cellular Mechanisms* vol. 25, no. 1, 2020, pp. 6-21. Based on the unique classes of movement-producing protein architectures Miyata et al. classify eighteen types of motility systems that have evolved over the past 4.5 billion years of life on Earth. Some of the earliest to evolve in the absence of a nervous system include the bacterial flagella, prokaryotic pili, and the Archaea archaeella. Similarly, Allman noted the evolution of receptors in bacteria which are unicellular organisms (e.g., *Escherichia coli*) preceded that of the nervous system and the brain (Allman, *Evolving Brains* , p. 3).

endeavoring function. However, despite being highly variable, the ecological niche had to possess a necessary and sufficient measure of stability and coherence for the Self/body/coordinates to evolve motility and sensory structures. Thus, the stability and coherence of external and internal milieus are crucial to the existence, growth, and evolution of biological beings, their body of coordinates, and the Self.⁴⁷

The evolution of specialized receptors exponentially increased with the coevolution of the structural composition and functional complexity of the Self's body and its ecological niche.⁴⁸ The ordering, arranging, and marshaling of the vast array of receptors necessitated the Self to evolve the nervous system and the brain of humans and other higher order biological beings. By way of efferent and afferent nerve fibers and brain, many receptors are integrated by individual nerve fibers that subsequently innervate cells and organs of motility (e.g., muscle cells, secretory glands).⁴⁹ Throughout this innervation process, the Self's brain is instrumental in maintaining a regulatory function by channeling vital phenomena to and away from cells and organs in a manner that assures the efficiency of the work performed by a specific activity (e.g., high intensity

⁴⁷ Ostdiek, Gerald. 'Me, Myself, and Semiotic Function: Finding the "I" in Biology.' *Biosemiotics* vol. 9, no. 3, 2016, pp. 435-450. The concept of "redundancy" is inherent to stable and coherent dynamic conditions of human existence in and with other biological beings, Earth, and the whole of Nature. However, there is a principle of specificity associated with redundancy. Redundancy of a stable and coherent way of living has vastly different outcomes than the redundancy of knowing ways of living life that are divisive and destructive. In this regard, it is the specificity of holistic redundancy that is essential "for science" and for "all living things...to go on living."

⁴⁸ Allman, Evolving Brains. There is more than a dozen distinct types of receptors on the surface of the bacteria *Escherichia coli*. In contrast, there are millions of different sensory receptors throughout the human body including the four million receptors on the skin.

⁴⁹ Changeux, Jean-Pierre. *Neuronal Man: The Biology of Mind*, trans Dr. Laurence Garey 1st ed. Princeton, NJ, Princeton University Press, 1997, p. 224. Discussing the embryonic development of human (and other mammalian) muscle fibers, Changeux notes the receptors for the nerve fibers that will stimulate the muscle are present "before the growing nerve fiber arrives" and before any interactions take place. Moreover, the nerve fibers have a marshaling effect on the receptors. As Changeux notes, the receptors in the embryonic muscle fiber are abundant but spread out. However, as the construction of the synaptic junction between nerve fibers and muscle fibers progresses, excess receptors are eliminated and those that remain become densified at the synaptic junction and thus increase the efficiency with which neuronal impulses cross the synapse and stimulate the muscle fiber. Also, the embryonic development of muscle fibers and their receptors before the arrival of the motor nerve appears to support the conservation of holistic knowledge implied in the axiom "ontogeny recapitulates phylogeny."

activities like exercise versus sleep, or digestive activity).⁵⁰

Learning how to participate in all internal and external domains vital to the integrity of its body, biological Self-consciousness evolved the ability to merge with the holistic consciousness of its ecological niche, the “biospheres,” and Nature.⁵¹ However, the attentional demands of learning necessitated the human Self evolve the capacity to consciously regulate⁵² bodily and environmental resources towards the task of learning but to do so it had to create a domain of subconsciousness. Subconsciousness allows the Self to remain connected with body and social domains of consciousness but on an “on call” basis while it consciously focuses on meeting the demands of the present moment.

Human Self-Consciousness and Regulation. The stability and coherence of its ecological niche and its body of coordinates enables the human Self to focus on interactions while lowering awareness of its unity with its body. Although the Self’s here-and-now sensitivity for the integrity of its body is reduced, its body’s holistic consciousness can continue performing its work at a level that is subconscious to the Self.⁵³ Moreover, environmental stability and

⁵⁰ As evolved extensions of the Self, the argument is being made that the brain and nervous can continue the regulatory functions of the Self at a level subconscious to the Self. Accordingly, the sympathetic and parasympathetic branches of the autonomic nervous system are manifestations of how the holistic consciousness of the body’s coordinates, the nervous system, and the brain functionally co-operate in the absence of Self-awareness. Also, it is argued that the brain and nervous system response to performing high intensity work follows the intensity of the Self’s focus. Just as there is a continuous flow of action-potentiating nerve impulses going to muscles in the absence of Self-awareness, when engaged in a demanding physical task, the focus of the Self produces the phenomenon of rate coding which substantially increases the flow of nerve impulses from brain to muscle fibers which subsequently increases the force produced by a muscle.

⁵¹ Vernadsky, Vladimir I. *The Biosphere*, D.B. Langmuir, trans., Mark McMamin, ed. 1st ed. NY, Copernicus, 1997, p. 40) Conceptualizing the biosphere as part of the Earth’s holistic consciousness builds on the work of Vernadsky (1863-1945) who argued the biosphere is the “*holistic mechanism* that combines all parts of the planet in an indivisible whole.” (emphasis Vernadsky).

⁵² Changeux, *Neuronal Man*. Changeux states that “...*consciousness* can be defined as a kind of global regulatory system dealing with mental objects and computations using these objects.” (p. 145, emphasis Changeux). Later he states “Consciousness...corresponds to a regulation of the overall activities of cortical neurons and, more generally, of the entire brain.” (p. 151). Thus, via the guiding influence of Self-consciousness, the Self and its brain regulate all energy, forces, and power that go into the work of controlling “mental objects and computations” as well as the “overall activities” of the entire brain.

⁵³ Greenfield, Susan. ‘How Might the Brain Generate Consciousness?’ In Steven Rose, ed, *From Brains to Consciousness: Essays on the New Science of the Mind*, 1st ed. Princeton, NJ, Princeton University Press, 1998, pp. 210-227. Koch, Christof. ‘Keep it in Mind.’ *Scientific American Mind* vol. 25, no. 3, 2014, pp. 26-29. Although receptors, the nervous system, and brain are necessary conditions of consciousness they are extensions of the Self and thus individually or collectively, they cannot explain consciousness, or the evolution of the Self’s

coherence allows the Self to consciously merge with ecological consciousness and learn ways of working together that mutually benefit the integrity of both. Thus, the benefits of human subconsciousness have contributed to the rise of technology and the enormous technological progress humanity has made in a relatively short time.

However, subconsciousness has its dark side. As the Self's power of knowledge grows, its intoxicating effect can desensitize the Self. When enamored by technological progress and know-how, the Self is at a heightened risk of crowding its body, other living beings, and its ecological niche out of consciousness. As technological information eclipses holistic knowledge,⁵⁴ it comes with the

ability to *selectively* interact with its ecological niche and determine the maintenance and enhancement relevance these interactions have for its body of coordinates. Indeed, Greenfield cites the research of Benjamin Libet who, when pricking the skin of healthy volunteers showed they responded with "a huge amount of [electroencephalographic (EEG)] activity in the area of the brains associated with the sense of touch" (p. 218). Despite the heightened EEG activity, the volunteers were not conscious of the researcher touching their skin. Thus, the Self was not conscious of the feeling but its sensory organs (i.e., their skin) and brain were clearly aware of it. Greenfield noted that it was only after there was an increased recruitment of neurons (approximately 500 milliseconds after the volunteers were pricked), and the electrical activity spread from the somatosensory area to larger areas of the brain, that the volunteers became aware of feeling something; i.e., the sensation of "a tingle". Similarly, Koch discusses some of the work of the French cognitive neuroscientist Stanislas Dehaene and his colleagues, that supports the ability of the Self to override and regulate its brain's role in consciousness.

⁵⁴ Holistic knowledge has co-evolved with cosmic, biological, and social beings. However, the evolution of knowledge by humanity is marked by a shift from organic knowledge to technological information. Holistic knowledge is organic in that it is a product of autopoietic operations of learning how to maintain the mental, emotional, and physical integrity of one's Self in and with one's social and biological environments. In contrast, information is a product of technological computing machines that process and decode the input of binomial symbols (e.g., 0 and 1) into the output of "information" coded in the symbols. Information is then disseminated via hand-held devices (e.g., smartphones and iPhones) electronic billboards, and other communication devices connected to the World Wide Web. As Kenneth Burke noted, technology and its information have become humanity's "entelechy" in that it increasingly controls the way people feel and think, and thereby guides human beings in the pursuit of living a good life. Diminishing, if not eliminating, the explorative, experimental, cogitative, and cognitive processes of learning, technologically produced information can cultivate irrational, false beliefs, and be detrimental to individual, social, and ecological integrity. Consequently, it is worth noting that the use of the word "information" relative to "inputs and outputs" originated as a way of describing the unknown being transmitted through computing and communicating devices and then subsequently stored on hard drives. Although measurable, engineers and mathematicians acknowledged that whatever was being measured was neither knowledge nor meaning. Nonetheless, the word "information" was adopted but with the caveat that "people had to remember that they were using a specialized value-free term without the usual connotations of facts, *learning*, wisdom, understanding, enlightenment." (Gleick, James. *Chaos: Making a New Science*. 2nd ed. NY, Penguin, 1988, p. 255 (emphasis added)). Moreover, the modern use of "information" as decoding belies its Latin etymological

potential to corrupt the Self's mutual commitment to and caring about its holistic working relationship with its body, other living beings, and the planet on which the existence of the Self depends.

The learning power of the Self is greater than the sum of knowledge inherited and conserved in the cells, tissues, organs, and organ systems of its body of coordinates. Nonetheless, human learning needs a philosophy that is continuous with the dark matter of feelings and thoughts conducted through the scaffolding of Nature's cosmic, biological, and social consciousness. Prior to humanity, learning was solely influenced by Nature's holistic philosophy.

WE ARE THEREFORE I AM

Never a theory, Nature's Holistic philosophy is only known in practice by the ontological and epistemological shaping and swaying power it has exerted on feelings, thoughts, and actions over the eons and throughout the cosmos. From "becoming" to "being," the recursive evolution of whole beings has always been and remains a function of their co-evolving ontology and epistemology. The ontological burden of "becoming" whole is on the "we are" of many individuals that have been, fortuitously or intentionally, brought together and confined in spacetime.⁵⁵

Confinement and the chaotic commotion that accompanies it are necessary but not sufficient conditions for "becoming" a new whole-being. Every "we are" striving to "become" whole is saddled with the epistemological burden of learning how to convert their undifferentiated chaotic commotion into the orderly work that defines their "being" whole. Although the holistic knowledge acquired from learning assures the successful transformation from "becoming" to "being," every whole-being, new and old, must participate in the practice of Nature's holistic

origins (in-formäre), as a verb meaning "to give form to" (Varela, Francisco J. *Principles of Biological Autonomy* vol. 2, 3 vols, 1st ed. NY, North Holland, 1979, p. 266).

⁵⁵ Holdrege, Craig. 'The Form of Wholeness: Henri Bortoft on Multiplicity and Unity.' *In Context*, vol. 29, 2013, pp. 8-11. The hypothesis that Nature actively brings the chaotic phenomena of multiple bodies together was expressed by Goethe (1749-1832) as the means by which Nature and other whole-beings are not just the autopoietic product of becoming "one from many" but are also the source by which the whole of Nature autopoietically gives birth "to many whole-beings from one" that continue the recursive growing, birthing, evolving the creative autopoietic work of Nature. Similarly, the "many from one" concept was expressed by Nietzsche when he described "life" as the means by which "a multiplicity of forces" are connected. Nietzsche, *Will to Power*, 1967, p. 341.

philosophy. Consequently, the ontological and epistemological demands of holism are unrelenting as the process of “becoming” morphs into “being” whole, and the product of “being” is the creation of a new “we are” as the consciousness, learning, and knowledge of holism continue to grow and evolve.

Every new “I am” is epistemologically obligated to learn how to participate in the ontological maintenance of “being” and enhancement of “becoming” relative to the cosmic, biological, and social whole-beings from which it emerged and upon which its existence depends. Consequently, the ontological and epistemological burden of “being” is to learn how to structurally, functionally, sensually, and cognitively grow in and with the whole of Nature, give birth to and evolve into new whole-beings.⁵⁶ From past to present, cosmic to human beings, sensuality is an essential aspect of holism as it gives rise to the consciousness of Nature’s continuity of coherence. However, from Nature to humans, the ontological and epistemological demands of sensing but not knowing require the power of a philosophy to guide the many as they strive to learn how to “be” whole in and with Nature.

The power of philosophy has always been sensed, used, and abused by humanity. Ironically, most philosophers, including Nature, work “quietly, inconspicuously, and without much regard for what [others] have to say of them” or the unintended consequences of their philosophizing. Nonetheless, philosophies are the stem cells of feelings, thoughts, and actions that, when put into practice, can give rise to great works of cosmic, Earthly, and human art, as well as supernova explosions and galactic collisions. Similarly, humanity’s history of benevolence and atrocities is a testament to the power of human philosophies and their unintended consequences.⁵⁷ Indeed, armed with the inspiration of a

⁵⁶ Although the reality of a new whole-being is different from Nature’s and other whole-beings from which it emerged, it is not a separate reality.

⁵⁷ Rose, Nikolas. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. 1st ed. Princeton, NJ, Princeton University Press, 2007. Judith Farquhar & Margret Lock. ‘Part IV. Everyday Life, or Exploring the Body’s Times and Spaces. Introduction.’ In Margret Lock & Judith Farquhar eds, *Beyond the Body Proper: Reading the Anthropology of Material Life*. 1st ed. Durham, NC, Duke University Press, 2007, pp. 241-247. Elliot, Carl. *Better than Well: American Medicine Meets the American Dream*. 1st ed. NY, W.W. Norton & Company, 2003. The unintended consequences of the mind-body dualism of Cartesian philosophy and the superiority-entitlement philosophy of anthropocentrism are far reaching. Rose invokes Ian Hacking’s (1936-2023) observation that “[W]e are...becoming Cartesians” as the body, just as Descartes envisioned, is treated like a machine with parts (e.g., knees, hips, shoulders, corneas, hearts, and kidneys) that can be replaced.

philosophy, the politician, marketer, or revolutionary “who enlists” the minds of other people “wields a power even greater than the sword or the scepter.” Historically, the power of human philosophies has “shattered empires and exploded continents...buttressed and undermined political regimes...set class against class [and]...nation against nation.”⁵⁸

The Human Need for Philosophy. Humanity has been on a philosophical quest to make sense of Nature’s holistic “one is not one” paradox and comprehend the synergistic math Nature uses to make the whole of one greater than the sum of “trillions of individual beings.”⁵⁹ This quest did not originate with philosophy, but it brought the philosophers out of poets, scientists, children, politicians, “junkies,” and humans in general. It reflects the human need for a philosophy to “provide a mental machinery for dealing with a large variety of things” and interpreting those things “into something which has ‘meaning.’” Humanity needs “several alternative philosophies” to “provide different ways of interpreting chaos into sense.”⁶⁰ In this uniquely human philosophical quest, it might behoove humanity to start from Nature’s holistic philosophy of “we are therefore I am.”

Medical developments and techniques continue to advance the Cartesian philosophy is reinforced by “the idea of an analogue body, with interchangeable body parts, distinct from the mind.” (p. 21). Similarly, from an anthropological medicine perspective, Farquhar and Lock show that unintended consequences of Cartesian dualism manifest in the tendency “to portray human ideals-mental phenomena-as violently reduced to the simplistic material level of a structural or mechanical body.” Rose’s “analogue body” has also been co-opted and subordinated by the anthropocentric philosophy of superiority and entitlements. The eighteenth and nineteenth-century colonizers harbored an inferior view of those they colonized as lazy, sick, and grotesque. Another unintended consequence comes from the philosophical merger of Cartesian dualism and anthropocentrism as the narcissism inherent to the neoliberal/anthropocentric ‘maximizing gains that serve self-interest’ cultivates a consciousness of inferiority that can be easily converted to the consciousness of superiority with the purchase of enhancement surgery, cosmetics, or an array of material products.

⁵⁸ Heilbroner, Robert L. *The Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers*. 2nd ed. New York, Simon and Schuster, 1961, p. 1.

⁵⁹ Frauen, *Biological Evolution*, p. 105. Frauen’s quotes apply to the “trillions” of cells and bacteria that make being human whole and possible.

⁶⁰ Waddington, Conrad Hal. *Tools for Thought*. 1st ed. London, Jonathan Cape, Ltd., 1977, p. xii. Waddington (1905-1975) knew that “most aspects of life and its interactions with its surroundings are interconnected into \complexes;” and thus, there is no action that does not produce a ripple (or tsunami) of multiple consequences. Based on the potential for good and adverse consequences inherent to interconnectedness, “people need a philosophy to be able to think not just about simple processes but complex systems” like that of the human body, societies, humanity, and the whole of Nature.

AUTOPOIESIS⁶¹ AND NATURE

The criteria for autopoiesis is “the presence of the components that constitute it [the biological being] and on the kinds of interactions [working relationships] in which they may enter.”⁶² The presence of biological cells and the establishment of diverse working relationships between them, are thus prerequisites to the Self-making of biological tissues, organs, and living beings. Accordingly, the presence of quarks, protons, electrons, and neutrons and their ability to participate in integrative interactions, are prerequisites for the Self-making of atoms, and from atoms to molecules, compounds, prokaryotes (e.g., bacteria), and eukaryotes. Thus, the prerequisites of autopoiesis have always been a defining feature of holism throughout Nature.⁶³

Autopoiesis: Distinctions, Relevance, and Chaos. The primordial autopoietic operations of distinction and relevance have co-evolved with humans and their millions of receptors, numerous sensory organs, and five sensory

⁶¹ Maturana, Humberto R., and Francisco J. Varela. *Autopoiesis and Cognition: The Realization of the Living*. Vol. 42, 300+ vols. 1st ed. D. Dordrecht, Holland, Reidel Publishing, 1980. It was the limitations posed by trying to apply the ancient concept of a “circular organization” to the complex organization of biological beings that compelled Maturana (1928-2021) to invent the word autopoiesis (auto = self, poiesi = creation, production). Conceptually, autopoiesis provides an accurate characterization of the autonomy Maturana and Varela (1946-2001) saw as the central organizing feature of whole living beings comprised of and constructed from other living beings (p. xvii).

⁶² Maturana and Varela, *Autopoiesis*, p. 95.

⁶³ Kurakin, Alexei. ‘The Self-Organizing Fractal Theory as a Universal Discovery Method: The Phenomenon of Life.’ *Theoretical Biology and Medical Modeling* vol. 8, no. 4, 2011, pp. 1-66. Ambjørn, Jan, Jurkiewicz, Jerzy, and Loll, Renate. ‘The Self-Organizing Quantum Universe.’ *Scientific American* vol. 299, no. 1, 2008, pp. 42-49. Autopoiesis is implicit to Kurakin’s statement “...the energy/matter making up the Universe is far from equilibrium...it exists as an evolving flow, and that the energy/matter flowing through and comprising the Universe evolves from simplicity and disorder to complexity and order via *self-organization*” (p. 2, emphasis added). Similarly, Ambjørn and his colleagues imply autopoiesis when they describe the large number of “minute, structureless pieces” interacting with one another and how “they will spontaneously arrange themselves into a whole that in many ways looks like the observed universe” (p. 43). Autopoiesis is implicit to Hippocrates’ (479–377 BC) observation that “ponos”, the striving of the body to restore itself, was as much a part of disease as “pathos”. The autopoiesis of “ponos” may represent the biological continuation of the orderliness and self-lawfulness physicist Erwin Schrödinger (1887-1961) observed among large numbers of atoms. Thus, to the extent that life keeps up an existing organization that unfolds from the “co-operations of an enormously large number of atoms”, Schrödinger states that “Life seems to be an orderly and lawful behavior of matter, not based exclusively on its tendency to go over from order [ponos] to disorder [pathos] but based partly on existing order [autopoiesis] that is kept up.” Accordingly, autopoiesis may have been the word Schrödinger was looking for when he came up with his “awkward expression ‘negentropy.’” (Schrödinger, Erwin. *What is Life? The Physical Aspects of the Living Cell*. 3rd ed. London, The Folio Society, 2000, p.85, p.91).

systems.⁶⁴ Moreover, the inventions of scopes make operations of distinctions and relevance possible in domains sensed but previously unknown to humanity. Consequently, the ability to simultaneously perform operations of distinction and relevance in multiple sensory domains pertaining to the Self's external and internal environments has had a scaling effect that manifests in the phenomenon of choice.

The phenomenon of choice necessitates the development of a process for making choices. The concept of spacetime is an essential component of that process as the Self operationally assesses the *potential relevance* distinctions have for its autopoiesis in the present moment and into the future. The process of making choices is influenced by the here and now strength of the Self's integrity with its body and all else to which it is committed, about which it cares, and upon which its existence depends. However, this process is also influenced by the energy, forces, and power exerted upon the Self from the niche in which it exists. Thus, existing in a niche that is safe, stable, coherent, and abundant in vital resources tends to make enhancement choices more relevant than maintenance. In contrast, survival is relevated to the forefront of Self-consciousness when a niche is perceived as threatening, unstable, chaotic, and lacking vital resources.

Relevance, Self-Consciousness and the Mind. Operations of relevance are how Self-awareness becomes the Self-consciousness⁶⁵ that is a necessary (but

⁶⁴ Maturana & Varela, *Autopoiesis*, p. 94. Beginning with the operation of distinction performed by the innate force of matter, the subsequent emergence and evolution of composite and complex autopoietic systems are "cocircumstantial with the establishment of this operation." Specifically, the human Self/body subconscious sensitivity and response to familiar situations allows the Self to consciously perform operations of distinctions necessitated by subtle in-vivo unfamiliar alterations encountered while interacting in the situation. Thus, it is argued that the scope of humanity's heightened and highly evolved sensory capabilities and corresponding operations of distinction underlies memory, recognition, and behaviors like riding a bike, consuming comfort foods, or consuming to keep up with the "Joneses." In this regard, highly evolved and refined human sensitivity and operations of distinctions provide an alternative to the "mereological fallacy" of ascribing to "a part of a creature" (e.g., a "soul" or "brain" that perceives or makes "internal representation of the external world"), "which logically can only be ascribed to the creature as a whole (Bennett and Hacker, 2003, p. 29).

⁶⁵ Although Maturana and Varela do not specifically refer to "an operation of relevance" they imply that it immediately follows the establishment of a defined unity in Nature in conjunction with its operation of distinction (pp. 94-95). Bohm's (1992) insights help to understand this operation. Etymologically he notes the noun "relevance" was derived from the verb "relevate" which means "to lift into attention." Thus, when a person relevates content out of the non-Self background and either intuitively or, via exploratory, experimental, cogitative and cognitive processes, deems it to be of value to the maintenance and or

not sufficient) condition of converting the *potential relevance* of a distinction into an embodied maintenance and enhancement experience. Potential or otherwise, as strain on the integrity of the Self intensifies the autopoietic “tension gradient” that exists between Self-being and Self-becoming.⁶⁶ forms between the Self of past and present, and the Self of the future. As tension mounts distinctions are relevated from Self-awareness to Self-consciousness and *potential relevance* is scaled up to an *action-potential*. However, Self-consciousness does not initiate actions. Like Nature’s consciousness, the immense centripetal force of the dark matter of Self-consciousness channels highly relevant phenomena to the contained space of the Self’s nuclear core, its mind. In so doing, consciousness facilitates the advancement of the initial sensory autopoietic operations of distinction and relevance by functionally altering the Self from being a passive observer to becoming an active learner.

The Self and its Mind. As the “nuclear” core of the “Self,” the mind is a highly evolved field of forces that resembles the Higgs Field in terms of entrance criteria and its synthesizing capacity.⁶⁷ Like other nuclear cores, the mind is where the strife of fission and striving of fusion arrange, marshal, and combine chaotic and orderly phenomena into the power of knowledge. In terms of entrance criteria, it is the degree of relevance phenomena have for maintaining and enhancing the integrity of the Self and its body of coordinates. On the synthesis front, formulating knowledge begins with *ideas* generated by interactions between

enhancement of Self-integrity, the relevated content is emotionally transformed into a highly relevant person, place, or thing that demands action.

⁶⁶ Kohut, *Restoration*, p. 180.

⁶⁷ Smith, Chris Llewellyn. ‘The Large Hadron Collider.’ *Scientific American* vol. 283, no. 1, 2000, pp. 70-77. Kane, Gordon. ‘The Mysteries of Mass.’ *Scientific American* vol. 293, no. 1, 2005, pp. 40-48. Quigg, Chris. ‘The Coming Revolutions in Particle Physics.’ *Scientific American* vol. 298, no. 2, 2008, pp. 46-53. Higgs fields are believed to be quantum size fields that are, like other fields (e.g., electromagnetic fields), present throughout our universe and all spacetime. Just as elementary particles (e.g., electrons and the quarks from which protons and neutrons are made) of which the universe, humans, and everything else in between are comprised, acquire their mass when they pass through the Higgs field and interact with its bosons. Similarly, the momentum of holistic experiential forces carried in the Self’s web of consciousness transport some “particle” of Self-relevant phenomena (e.g., a strain on the body’s unity) to the mind. Within the mind, like within the Higgs field, the interactions begin between the particles of relevance and the experiential effects of holistic forces resulting in the formation of ideas and knowledge, which, acquiring mass, becomes a force that initiates actions relative to maintaining (and or enhancing) the unity of the Self and its body of coordinates.

the relevant phenomena, the Self's present state of integrity, and its body of existing integrity maintaining and enhancing knowledge.

Self-consciousness and its dark matter currents not only transport relevant chaotic phenomena to the Higgs Field of the mind, but it also regulates the processes by which the Self's existing phenomena of holistic knowledge attracts, combines, and strives to bring order to chaotic phenomena. This included the cogitative learning and cognitive rationalizing operations, the Self employs to explore possibilities and perform thought experiments which subsequently give rise to new ideas, choices, questions, and new Self-knowledge.⁶⁸

The Power of Being Human. The cogitative and cognitive powers of the Self are infinite because they are surpassed by the Self's power of imagination. Although other biological beings, with and without a nervous system, perform autopoietic learning operations, the power of human imagination catapults the learning capacity of humans beyond that of non-human beings. The combination of imagination and emotional relevance can alter Self-consciousness, transform ideas into ideals and, despite lacking an empirical basis, spark emotionally intense desires or fears that subsequently influence choices, actions, and the way life is lived.

The desire to sensually experience an imagined ideal can inspire death-defying explorations and experimentations. Although imagined threats to the integrity of the Self and its body can inspire brave and courageous acts, they can also stoke fears and induce the paralysis of helplessness. There are also the strain of imagined desires and fears that, despite extensive learning efforts, can never be known experientially but only subjectively as beliefs.

Evolving Knowledge and the Power of Beliefs. The holistic function of knowledge is challenged by the ability to imagine chaotic unknowns that can never be sensually, statistically, or otherwise experientially known and yet become emotionally relevant to the integrity of the Self. Under the intense emotional strain of imagination, beliefs have evolved as a uniquely human

⁶⁸ This description follows theoretical physicist Gordon Kane's description of the Higgs Field. Accordingly, highly relevant phenomenon can be likened to the relevance Kane's ice-cream vendor walking across a playground has for children. Despite all the other playground activities, the ice cream vendor will likely have greater relevance for the here and now maintenance and enhancement of most children. Consequently, the relevance of the ice cream vendor will attract a greater mass of children (Kane, 2005, p. 43).

manifestation of knowledge, and their power can mitigate or escalate the emotional intensity of imagined ideals. Consequently, in addition to determining the imagined content picked up by Self-consciousness and transported to the mind, emotional relevance will also highly, and sometimes completely, influence the cognitive rationalizing operations⁶⁹ that give rise to the power of beliefs. Even for the most rational thinkers, the integrity power of beliefs is in the feelings of coherence and calm they engender amidst the turbulence of infinite chaotic unknowns.

Regardless of content, any threat to a highly relevant belief is a direct threat to the Self and will be met with its forces of resistance and impulse to protect and maintain the integrity function of its beliefs.⁷⁰ Even when empirical data refute a belief, it is not without a fight and a great deal of emotional pain that one gives up a belief. The power of this emotional connection manifests in an “I feel it” response to “how do you know...” questions and thereby closes the door to the fact that beliefs could be wrong.

NATURE’S LAWS OF HOLISM

Newton implored philosophy to derive laws of nature from investigating other phenomena of motion. Investigating the phenomena of holism as the conversion of commotion guided by Nature’s “we are therefore I am” philosophy reveals Nature’s “organic” laws of holism.⁷¹ They are organic because they emerge from

⁶⁹ Since the ancient Greeks, reason has always been considered among, if not the highest of human virtues. However, Kaufman and Gare note that reasoning “is an insufficient guide for understanding, predicting, or living our lives forward.” Their point is particularly relevant in these times when people adopt diseased ways of living knowing they are not good for them, as well as when divisiveness, disparaging other individuals, hate, and the hell of wars are rendered rational.

⁷⁰ The significance of beliefs is evident in the emotional response of the amygdala to challenges or attacks on one’s beliefs in a manner comparable to when one’s physical safety is threatened. Harris, S., Kaplan, J. T., Curiel, A., Bookheimer, S. Y., Iaconi, M., & Cohen, M. S. ‘The Neural Correlates of Religious and Nonreligious Belief.’ *PLoS One* vol. 4, no.10, 2009, e7272. Kaplan, J. T., Gimbel, S. I., & Harris, S. ‘Neural Correlates of Maintaining One’s Political Beliefs in the Face of Counterevidence.’ *Scientific Reports* vol. 6, no. 1, 2016, 39589.

⁷¹ Commentaries: Samuel Taylor Coleridge. From ‘The lectures of 1811-1812, lecture IX.’ In Commentaries, in William Shakespeare, *The Tempest*, ed. Robert Langbaum, 18th ed. NY, New American Library, 1964, pp. 141-153. In a lecture on Shakespeare’s play *The Tempest*, Samuel Taylor Coleridge distinguishes “mechanical” from “organic” regularity in that the former produces copies of something based on a mold and thus the copy is structurally and functionally no different from the mold. In contrast, an “organic

the chaotic strife and striving nature of many learning to order, arrange, and marshal their commotion into the adornment of self-organized holistic phenomena. Nature does not enforce the laws of holism, nor are they enforced by the mechanical cause and effects of a force on a body. Rather the laws of holism emerge from the innate forces of every “we are” that mutually commits to “sticking together” as they strive to learn and know how to work together in and with the whole of Nature. In these divisive times, humanity needs to regain its senses and Nature’s philosophy of holism to consciously guide it in applying Nature’s laws of holism, the laws of symmetry and synergy.

The law of symmetry⁷² is the equilibration that manifests from the innate forces of many individuals learning to work together and become whole. Symmetry is applied to produce a ratio of opposing, opposite, and endeavoring forces that is optimal for performing the work of holism. Thus, the law of symmetry emerges from the right measure of the Self’s innate opposing and endeavoring forces exerted during interactions with other bodies, striving and learning how to holistically work together.

Effectively applying the law of symmetry is based on the feelings of coherence among coordinates and the efficiency of their holistic work. Similarly, the law of symmetry is also applied by the Self based on its sensitivity to the wholeness status of its body/coordinates/niche. Exerting the marshaling power of its holistic knowledge, the Self works with its body of coordinates to continuously equilibrate opposing and opposite forces of varying scope and magnitude to achieve the ratio that makes the most holistic sense for maintaining their integrity.

Throughout the evolution of cosmic, biological, human, and social whole-

regularity” is inherent to learning how to work together in that it involves the active participation of “parts...conforming themselves” but not “to the outward symbols”. Participants conform to the feeling of integrity that emerges with a working holistic relationship and provide the “essential principles” supporting the laws of holism. There is no mechanical mold for autopoiesis in Nature but every Self-made whole-being in Nature must conform to the laws of holism and the creative imperative of Nature to acquire knowledge organically and thus strive to become something more than just another copy of a mold.

⁷² Thompson, *On Growth and Form*. The concept of symmetry as a law of Nature is suggested in Thompson's observation that organic structures “are characterized by obvious and remarkable symmetry” and such symmetry is “rarely absent from living things.” Thompson draws support from the work of physicist and philosopher Ernst Mach (1838-1916) who stated, “In every symmetrical system every deformation that tends to destroy the symmetry is complemented by an equal and opposite deformation that tends to restore it.” Furthermore, Mach implies that a holistic working relationship is necessary when he states that both “positive and negative work is done” during the symmetry restoring process (p. 357).

beings, Nature's law of symmetry is conserved despite the specificity of equilibrations for each whole-being. Furthermore, giving birth to and facilitating the growth of new beings demands the conservation of Nature's law of symmetry and the marshaling power of holistic knowledge. For example, the birth and growth of a bundle of chaos, be it a human child, or any cosmic or biological being, necessitates the marshaling power of maternal knowledge. Being of sufficient scope and magnitude, the maternal power of knowledge equilibrates the strain of a newborn, empowers its growth, and accommodates the new symmetry needs of the "we are" plus one that now defines the "I am" of maternal Self-integrity.

Thus, throughout the evolution of whole beings, for every application of Nature's law of symmetry, "a conservation law comes along for the ride, and vice versa."⁷³ Conserving symmetry and its power of holistic knowledge not only maintains a stable, coherent, resilient environment for Nature's offspring, but also creates niches that are fertile grounds for giving birth to and caring for Nature's next highly evolved bundle of chaos. Ultimately, whether it is an individual, the whole of humanity, or the life of planet Earth, Nature's law of symmetry will be applied, necessary and sufficient equilibrations will be made, and holistic integrity will be maintained despite the chaos that tags along. In this regard, it may well be that wildfires, flooding, droughts, excessive heat, hurricanes, and other catastrophic climate events of modern times are equilibrations made by Earth's application of the law of symmetry. Similarly, the rise of zoonotics, including Covid-19, that are expected to cause future pandemics, may also be organic equilibrations made as humans continue to invade, deforest, and destroy the integrity of natural habitats.⁷⁴

Symmetry and the Principle of Efficiency. The successful application

⁷³ Davis, Tamara M. 'Is the Universe Leaking Energy?' *Scientific American* vol. 303, no.1, 2010, pp. 38-47. Davis further states that "all conservation laws are based on symmetries of nature." Presumably, this includes conservation of the equilibrating power of holistic knowledge.

⁷⁴ That actions have consequences is without dispute, but it is an interesting reversal of anthropocentric superiority and entitlement, to view the worsening of global climate catastrophes in the context of divine, Nature's, or Earth's retribution against humanity for its destructive and wasteful way of life. From the law of symmetry perspective, the climate catastrophes are simply the response of the innate forces of Nature, the Earth and its spheres of life opposing disintegration and endeavoring to maintain their integrity by using the right measure of their forces and power to make equilibrations for the perturbations that threaten it.

of the symmetry law depends on the efficiency with which the work of holism is performed. Efficiency is the product of holistic knowledge and manifests in the ability of Self/body/coordinates to perform the right holistic work, at the right time, in the right measure, and under the right conditions. Just as with learning, the efficiency of holistic knowledge depends on a heightened sensitivity to the distinction between the feelings of integrity versus strain. When the imbalance of system-wide forces is optimal for the varied work of holism to be performed, an unparalleled sense of efficiency permeates the whole of the Self, its body of coordinates, and their niche. However, when holistic work becomes inefficient, and the imbalance of systematized forces becomes excessive, a sense of strain will be felt throughout. Consequently, the equilibrations needed to restore efficiency will be commensurate to the degree of strain imposed on the integrity of the Self/body/coordinates/niche unity.

In general, the sense of efficiency is maintained when the power of knowledge and other phenomena of holistic work are readily available and effective for performing the appropriate measure of holistic work when needed. In contrast inefficiencies will result when the power of knowledge or other vital holistic phenomena are lacking or when resources are abundant but wasted. Ironically, throughout the whole of Nature, wastefulness seems to be a uniquely human trait.

Synergy: Nature's Second Law of Holism.⁷⁵ Synergy is the process by which all beings in Nature make themselves whole, grow, and develop into the holistic adornment of many working together. The potential for synergistic greatness resides in the strife and striving nature of chaotic phenomena and the cohering strength it gives to the many who overcome the potential divisiveness inherent to their chaotic commotion. Often, a cohering force/mass/motion of some invisible phenomenon (e.g., quarks, gravity, or love) is needed to keep the mass of opposing and opposite forces mutually committed to and caring for one

⁷⁵ Ward, Lester Frank. *Glimpses of the Cosmos*, vol. 6, 6 vols., 1st ed. NY, G.P Putnam's Sons, 1918, pp. 358-359. Although Ward (1841-1913) did not call it Nature's law of synergy, he described "cosmic synergy" as "the universal constructive principle of nature." He is explicitly referring to the centripetal and centrifugal struggle inherent to the integrative, disintegrative, and repulsive interactions of all opposing and opposite forces that combine to form a coherent and cohesive whole. Specifically referring to social unity, he notes the apparent relationship that must be established if unity is to be maintained, viz., the mutual commitment to unity that will give rise to their harmony of movement, or as Ward calls it, "this great rhythm" and the symmetry of "equilibration...going on among all these great social forces."

another and compel the holistic learning that combine and convert their chaotic interactions into the work of holism. Regardless of how it happens, synergistic greatness will manifest in the adorning power of beauty, rhythm, and harmony born from the art of holistically learning and knowing how to work together.

The Principle of Holistic Reciprocity. The synergistic power of making one from many depends on the reciprocal exchange of feelings and thoughts underlying the mutual commitment and caring of the many striving to be one. As a function of feelings and thoughts, reciprocity cultivates a consciousness between the interacting participants. However, the consciousness that emerges will depend on whether the reciprocal exchange of feelings and thoughts are holistic, divisive, or exploitive. Divisive reciprocity manifests in an “eye for an eye” way of thinking, driven by the divisive forces inherent to mutual feelings of distrust, vengeance, and disdain. Exploitive reciprocity is the hallmark of anthropocentrism. It cultivates feelings of indifference and helplessness masked by a deceptive way of thinking that justifies the anthropocentric exploitation or coercion of individuals.

Holistic reciprocity cultivates, reinforces, and strengthens the feelings of mutual commitment and caring among participants of these reciprocal interactions. Whereas divisive and exploitive diminish the integrity of all participants, the feelings associated with holistic reciprocity is a “force”,⁷⁶ the dark matter of holistic consciousness that binds and inspires a way of thinking that compels one to strive for noble actions. Thus, the Self bears the responsibility of merging with Nature’s holistic consciousness and learning how to participate in the noble duty of reciprocally exchanging vital phenomena with its body of coordinates, other human and non-human beings, and its ecological niche. Accordingly, the principle of holistic reciprocity is Nature’s promise of the feelings of being whole and alive that come with learning and knowing how to work together. It is thus the duty of the noble Self to reciprocate and keep the promise to life and Nature by using the power of human imagination in “ever considering

⁷⁶ Mauss, Marcel. *The Gift: The Form and Reason for Exchange in Archaic Societies*, trans. Ian Cunnison. 2nd ed. Mansfield Centre, CT, Martino Publishing, 2011, p. 1. Holistic reciprocity is the answer to the questions posed by the sociologist Marcel Mauss (1872-1950) when he asked “what is the principle whereby the gift received has to be repaid? What *force* is there in the thing given which compels the recipient to make a return?” (emphasis added)

what we can best give in return” for all that life and Nature have given the Self, its body of coordinates, and its ecological niche.⁷⁷

ANTHROPOCENTRISM AND SYMBOLS OF POWER

Humanity has always invented symbols of power. Although meaningless in Nature, symbolic power is like Nature’s power in terms of its intoxicating effect. A nation’s flag can stir emotions, bring people together in thought, empowering them with the inspiration to take noble actions. However, the intoxicating effects of symbolic power can also be used to disempower individuals, divide people from one another, distort ways of thinking and acting, and thus deprive humanity of its nobility. Either way, it is the belief humans have in the power of the symbol that gives the symbol its power.

Human supremacy, entitlement, and exploitation are more than words. They are the emotional and cognitive power that has made anthropocentrism a global belief and the dominant philosophy of modern times. Emotionally, anthropocentrism heightens humanity’s sense of greatness with its *ideals*⁷⁸ of “rugged individualism”⁷⁹ and “freedom.” In practice, these anthropocentric

⁷⁷ Nietzsche, Friedrich Wilhelm. *Thus Spake Zarathustra*, trans. Thomas Common, NY, Modern Library, p. 222. Mauss, *The Gift*. Vernadsky, Vladimir. *The Biosphere*, trans. David B. Langmuir, New York, Copernicus, 1st ed. 1997. Kimmerer, Robin Wall. *The Democracy of Species*. London, Penguin Books, 2021. In addition to Nietzsche, Mauss concluded from his research that “We must always return more than we receive” (p. 63). The case for holistic reciprocity is also explicit in the work of geologist Vladimir Vernadsky (1863-1945) and the botanist Robin Wall Kimmerer. Vernadsky details the Earth’s holistic reciprocal relationship (i.e., giving back biological beings as its “something more” to Nature) in his explanation of the “striking similarities between the chemical composition of profoundly different celestial bodies” as a “material exchange taking place between the outer parts of the Earth, sun, and stars.” Moreover, Vernadsky argues that the only way to gain insights into the biosphere is by “considering the obvious bond that unites it to the entire cosmic mechanism” (p. 47). Kimmerer, like Vernadsky, details how plants not only feed themselves, “but they make enough to sustain the lives of all the rest of us” (p. 86). From Nietzsche’s perspective, plants keep giving back more to life than what cosmic and the Earth’s spheres of life give to them.

⁷⁸ Oreskes, Naomi & Conway, Erik M. *The Big Myth: How American Business Taught Us to Loathe Government and Love the Free Market*. 1st ed. NY, Bloomsbury, 2023, pp. 3-4. Individualism and freedom are recurring themes in Oreskes and Conway’s book. They document how, over the course of almost 100 years, the “free market” has used propaganda, half-truths, deception, and lies to cultivate the wide-spread belief in “self-interest” over the “common good” and reject government claims of “representing the people” and replacing it with individualism; individuals who represent themselves by operating to serve their self-interest through the “free choices” they make and that the “free market” provides.

⁷⁹ Bazzi, Samuel, Fiszbein, Martin, & Gebresilashe, Mesay. ‘Frontier Culture: The Roots and Persistence of “Rugged Individualism” in the United States.’ *Econometrica* vol. 88, no. 6, 2020, pp. 2329-2368. In their

tropes *never empower and never become goals of thought and actions*. Individuals are disempowered by the economic, political, and media power of corporate conglomerates that reduce the rugged to subordinates of their anthropocentric/neoliberal superiority.⁸⁰ Similarly, without the “will-power” to exert one’s “free-will,” freedom is an illusion.⁸¹ Nonetheless, fortified and

analysis of “the frontier experience,” Bazzi et al. note the conceptual use of “individualism” in the social sciences, but especially so in economics and politics. The traits of “individualism” include perceptions “of the self as independent rather than interdependent, emphasis on self-reliance, the *primacy of self-interest*, and regulation of behavior by personal attitudes rather than social norms” (emphasis added). Although these traits have been romanticized by anthropocentric neoliberalism and used to flatter the individual, they are a subterfuge. The economic and political actors preaching the virtues of “rugged individualism” understand the emotional significance of being perceived as caring in terms of cultivating “the passionate attachment” to a belief that “is more vital than the quality of the cause to which he [the believer] is attached” (Hoffer, Eric. *The True Believer: Thoughts on the Nature of Mass Movements*. 2nd ed. NY, Perennial Library, 1966, p. 81). They also know there is no one easier to subordinate than an individual, rugged or otherwise, especially when they become “True Believers” in the “rugged individual” cause. However, the “True Believer” consciousness inevitably manifests in the divisiveness, hatred, inequality, and disparity associated with how people learn to live in the 21st century. Like other “mass movements,” the passionate attachment to the ideals of a rugged individual “breed[s] fanaticism, enthusiasm, fervent hope, hatred, and intolerance...demand[s] blind faith and singlehearted allegiance” (p. ix). The anthropocentric philosophy has percolated through societies over the past 100 years dividing, enfeebling, and weakening the whole of humanity. It has added loneliness and isolation to the syndemic associated with its diseased ways of thinking and living (Office of the Surgeon General (OSG). *Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General’s Advisory on the Healing Effects of Social Connection and Community*. U.S. Department of Health and Human Services, 2023).

⁸⁰ Schlosser, E. *Fast Food Nation: The Dark Side of The All-American Meal*. 1st ed. NY, Harper Perennial, 2005, p. 145. Ranchers and farmers are often considered the embodiment of the “rugged individual!” However, despite the romanticized notion of being individuals who are “independent and self-sufficient, cherish their freedom, [and] believe in hard work,” it has a hefty price. Aside from the likelihood of financial hardships and the labor demands of being a rancher or farmer, the physical isolation and perception of independence contribute to rates of suicides and mental health problems that exceed those observed in other segments of the population. (Scheyett, A., Marburger, I. L., Scarrow, A., Hollifield, S. M., & Dunn, J. W. ‘What Do Farmers Need for Suicide Prevention: Considerations for a Hard-to-Reach Population.’ *Neuropsychiatric Disease and Treatment* vol. 20, 2024, pp. 341-352.

⁸¹ Knight, Frank Hyneman, and Bonner, Hubert. *Freedom and Reform: Essays in Economics and Social Policy*. 1st ed. NY, Harper & Brothers, 1947, pp. 10-14. Knight argued that “the very notion of freedom...is illusory.” Moreover, he calls the “confusion of freedom and power” a “fatal defect” in the anthropocentric/neoliberal “utilitarian doctrine of maximum freedom as a goal of social policy.” The belief that one is free to do anything is, according to Knight, meaningless if one does not possess “the requisite means of action,” which redirects the question away from whether one has the freedom to act to whether one has the power to act freely. In this regard, the argument that it is wrong to deprive people of their “freedom,” as is often expressed by economic and political leaders, is not just a “misuse of words” but a smokescreen for the social wrong inherent to policies that result in the “deprivation of power” among citizens. Ironically, the inseparability of power and freedom to act does not always run into problems when, for instance, symbolic power (e.g., money and materialism) is used by the few to exploit the many. Under these conditions, it is not uncommon

rationalized by emotional relevance, one's belief in "freedom" can be consciously voluntary and yet coerced or manipulated by those who possess the power to control the social communication technology that guides social consciousness. Under the illusion of anthropocentric/neoliberal freedom, people can be "made" to adopt ways of living life that are known to be detrimental to their health and well-being and "made" to like it.⁸²

As a way of living, the philosophy of anthropocentrism has extracted happiness from the feeling of being healthy, both of which are products of learning how to holistically work together as a "unity of coordinates." Instead of health and happiness, anthropocentrism cultivates *schadenfreude* and divisiveness that inevitably creates a social "unity of subordinates" in which individuals work against one another and all of Nature. Consequently, the emergence of a syndemic is the hallmark of anthropocentrism.⁸³ Diseased ways of feeling, thinking, and living synergistically progress from experiencing one disease to experiencing multiple diseases, and a heightened vulnerability to experiencing worse diseases,⁸⁴ and deaths of despair.⁸⁵

for some of the exploited to use other forms of symbolic power (e.g., a firearm) to exercise their freedom to act.

⁸² Knight, Frank Hyneman. *The Ethics of Competition and Other Essays*. 2nd ed. George Allen & Unwin, London, 1936, p. 344.

⁸³ Singer, M., Bulled, N., Ostrach, B., & Mendenhall, E. 'Syndemics and the Biosocial Conception of Health.' *The Lancet* vol. 389, no. 10072, 2017, pp. 941-950.

⁸⁴ Sallis, R., Young, D. R., Tartof, S. Y., Sallis, J. F., Sall, J., Li, Q., Smith, G. N., & Cohen, D. A. 'Physical Inactivity Is Associated with A Higher Risk for Severe COVID-19 Outcomes: A Study in 48 440 Adult Patients.' *British Journal of Sports Medicine* vol. 55, no. 19, 2021, pp. 1099-1105. Sanchis-Gomar, F., Lavie, C. J., Mehra, M. R., Henry, B. M., & Lippi, G. 'Obesity and Outcomes in COVID-19: When an Epidemic and Pandemic Collide.' *Mayo Clinic Proceedings*. Vol. 95. No. 7. Elsevier, 2020.

⁸⁵ Deaton, Angus, and Case, Anne. *Deaths of Despair and The Future of Capitalism*. 1st ed. Princeton, NJ, Princeton University Press, 2021, p. 8. Deaton and Case define deaths of despair as "suicides, drug overdoses, and alcoholic liver disease." The results of their investigation showed that deaths of despair are the leading causes of death in middle-aged working-class white males and are increasing among elderly individuals as well as among black and brown Americans and adolescents and children. Most importantly, Deaton and Case show that the rise in deaths of despair is a uniquely American phenomenon linked to American capitalism (i.e., neo-liberal economics). Thus, although suicides are self-induced, their etiology is social. Quoting the sociologist Emile Durkheim, Deaton and Case state, "Suicide happens when society fails to provide some of its members with the framework within which they can live dignified and meaningful lives."

TOWARDS A HOLISTIC PHILOSOPHY

To be sure, the opposite of anthropocentrism, cowering before the cosmic, biological, and ecological greatness from which humans emerged, will never empower or inspire humanity to fulfill its noble duty. Nature's holistic covenant mandates an upright posture and a shoulder-to-shoulder alignment with Nature's other awe inspiring cosmic, Earthly, and biological beings. It requires humanity to cultivate its ability to be inspired by the grandeur of Nature and fulfill its duty to give birth to new and better ways of living while keeping up the existing order, the marshaling, the growth, and adornments of Nature.

Inspiration is the empowerment of Nature's holistic power. Humans are the latest beings to evolve from the inspiration of other beings empowered by Nature. Inspiration manifests in the emotional and cognitive response to the holistic power of the "we are" connection humanity has with Nature's cosmic, Earthly, and biological adornments. The power of human imagination and the power to will the freedom and courage to explore, experiment, and create great artistic, scientific, social, and technological works, are empowered by the sensual capacity to be inspired and the emotional and cognitive work it engenders. No other living being is sensually, emotionally, and cognitively equipped to "breathe in" the breath of Nature's adornments and use them to restore hope for humanity's future.

The despair of anthropocentrism has driven humanity into a philosophical crisis that requires a philosophical solution comparable to the one Mukherjee was tasked with when his patient was ready to give up hope.⁸⁶ The task of repossessing individual and social consciousness, is a delicate one that will require more than a logical, rational philosophical solution. Up against the emotional and symbolic power of anthropocentric beliefs, necessitates a philosophical solution that begins with the affective dimension of the "vis insita," the force of integrity. Humanity

⁸⁶ Mukherjee, Siddhartha. *The Emperor of All Maladies: A Biography of Cancer*. 1st ed. NY, Scribner, 2011. Mukerjee is explicit about the difficulty "imagination" posed to him as he faced the "delicate and complex" task of repossessing the consciousness of his patient from death. Philosophy and public health are facing the same demanding task of repossessing human consciousness and imagination from the false promises of anthropocentric supremacy, entitlement, and exploitation. This philosophical task will, as Mukerjee states, "demand an exquisite measuring and remeasuring, filling and unfilling a *psychological* respirator with oxygen. Too much 'repossession' and imagination and imagination might bloat into delusion. Too little and it might asphyxiate hope altogether." p. 306 (emphasis added).

needs a philosophy that makes holistic sense instead of mechanistic sense; a philosophy that abandons the “naïve empiricism” of reductionism for the “sophisticated empiricism” of holism⁸⁷ and posits the Self as the body’s primary sensory organ. Accordingly, a philosophy is needed that recognizes the Self’s commitment to its body’s integrity is based solely on the feelings of being whole and alive and thereby cultivates a social way of thinking and acting to prevent the anthropocentric diseased way of thinking that has humanity on a path to extinction.

Over 100 years ago, Herman Biggs (1859-1923) led a public health revolution to fight “consumption” (i.e., the tuberculosis epidemic).⁸⁸ Recently, the author and a colleague called for a new public health revolution to eradicate the modern-day diseases of anthropocentric consumption that are destroying humanity.⁸⁹ However, this new public health revolution needs a philosophical framework to guide the corroborative effort necessary for it to succeed. It is the author’s hope that the holistic philosophy described in this essay will provide new perspectives and ideas for philosophers, health professionals, and others to construct a collective consciousness that will guide humanity towards the realization of its noble greatness by fulfilling its holistic duty to the eons of greatness from which humans emerged and are vital to its continuity.

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⁸⁷ The distinction between “naïve” reductionistic versus “sophisticated” holistic empiricism is taken from the notes of Mark McMenamin, the editor of Vladimir Vernadsky’s book “The Biosphere” (1998, p. 52).

⁸⁸ Garrett, Laurie. *Betrayal of Trust: The Collapse of Global Public Health*. 1st ed. NY, Hyperion, 2000, pp. 294-298.

⁸⁹ Almada, Stephen J. & Panozzo, Gina. ‘Is Marketing an Adverse Childhood Experience? Practical Implications and Suggestions for Community Psychologists.’ *Global Journal of Community Psychology Practice*, vol 14, no. 3, 2023.

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