

Humanism at a Crossroads

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This paper will review our general understanding of humanist philosophy, and two variations on the general view, in an attempt to determine whether a humanist mindset might be contributing to our uncaring disregard for the ecology of planet Earth. The two variations of humanist philosophy — put forward by the historian, Yuval Noah Harari, and the philosopher, William James — will be evaluated on the question of the extent to which they view the nature of humans as being “exceptional” — ontologically distinct from the natural world, or integrated with it. The logical implications of human exceptionalism for how individuals relate to the natural world and environmental action to preserve it will be drawn out, as will the empirical findings. I will review the major environmental problems the world currently faces and assess how exceptionalist thinking and attitudes might affect how we respond to them. Some thoughts on how we might affect the outcomes will be offered.

Keywords: human exceptionalism, humanism, ecological overshoot

The intention of this paper is to investigate the ideology at play in the minds of those who feel their humanity sets them apart from nature. These minds appear to be complacent in the face of plain and compelling evidence that we are doing irreparable harm to the ecology and inhabitants of the planet — human and non-human. Such minds appear to believe we can remain on the path of forever elevating our standards of living, of creating energy-intensive technologies that will allow us to do so, and of ruthlessly extracting Earth’s resources as if they were unlimited. We will attempt to answer the following questions: What is this ideology and why does it result in so little care about the natural world and its non-human inhabitants? And, how might we effect a change in the way this ideology plays out?

I’ll begin by introducing some of the thinking of the Israeli historian, Yuval Noah Harari. In his 2015 book, *Sapiens: A Brief History of Humankind*, Harari introduced the idea that theistic religions have been in decline for the past 300

years or so, and are being replaced by “natural-law religions.” He defines the latter as “system[s] of human norms and values that are founded on belief in a super-human order” (p. 228). As examples of such religions, Harari offers liberalism, communism, capitalism, nationalism and Nazism. He acknowledges that these creeds are more typically considered “ideologies,” and does not quibble with using the terms interchangeably; however, these natural-law religions are distinguished by having their justifications in laws that go beyond human conventions; while not divine in origin, their authority is found in principles thought to be immutable and to not be the result of human construction. These laws can be discovered by humans but not authored by them. Of the non-theistic religions cited above, Harari characterizes liberalism, communism, and Nazism as “humanist religions.” Whereas theistic religions sanctify gods, humanist religions sanctify humanity — or humans. A direct quote is in order here:

Humanism is a belief that *Homo Sapiens* has a unique and sacred nature, which is fundamentally different from the nature of all other animals and of all other phenomena. Humanists believe that the unique nature of *Homo Sapiens* is the most important thing in the world, and it determines the meaning of everything that happens in the universe. The supreme good is the good of *Homo Sapiens*. The rest of the world and all other beings exist for the benefit of this species. (2015, p. 230)

Could it be that the humanist mindset, as described by Harari, accounts for our uncaring disregard for the natural environment and its non-human inhabitants? Could humanism and the humanist sensibility be the unlikely culprits in the breakdown of the ecology of the planet? Harari has more to say about humanism in his 2017 book, *Homo Deus*, and the sway of humanism over our relations with other creatures on the planet, domestic and others. He will place his notion of humanism at the center of the pivot sapiens will make in the twenty-first century. But before going deeper into Harari’s view, I will put his portrayal of the nature of humanism in context. Let’s take a look at how others have characterized this philosophy.

Humanism

According to Nicola Abbagnano (1967), humanism began to coalesce as a basic aspect of the European Renaissance. The thrust of humanist thinking was to reintegrate man into the world of nature and history in a way that had fallen away during the medieval period.¹ The purpose and meaning of human life during the Middle Ages were viewed by Renaissance thinkers as having been defined by the hierarchical structures of Church and fiefdom. In contrast, the

¹The term “man” is preserved here because the emphasis in this context was on “man” as an inclusive category distinguished from the dominant systems within which humans found themselves.

early humanist philosophers sought to emphasize the human capacity to change and develop over the course of time — to have histories — and to highlight our connection with nature, as beings with bodily needs and valuations that can form the bases of their moral systems. The idealized aestheticism of the monastic was brought to par with, or surpassed by, the person connected with society and the pleasures of secular life. Abbagnano identified the following themes as capturing the change in thinking that defined humanism and its differentiation from the ethos of the medieval period: naturalism, freedom, historical perspective, religion, and science.

Freedom

Renaissance humanism brought a new emphasis to human freedom. In contrast with the dominant hierarchies that ruled in feudal society, the new cosmopolitanism of the burgeoning municipalities of Europe allowed for newfound freedoms and autonomy in daily life. Rather than relying on the Church or fiefdom to mediate the needs of humans with the cosmic order, individuals now had greater latitude to select the means and methods of getting their needs, and aspirations, met. While the bases of free will and self-determination (and the consequences of choosing wrongly) find their origins in earliest Biblical scripture, freedom to determine one's destiny could only come into play as the constraints of medieval institutions began to give way. Individual choice became a factor in how to get one's material and social needs met. Each individual was becoming a free agent in their own world, and less a stone in the sling of forces beyond their control. Although initially viewed as a radical freedom, the compass of free will would be tempered in the minds of later humanists. Nevertheless, this new emphasis on human freedom represents an important step away from the medieval mentality.

Freedom continued to be an important aspect of humanist thinking into the Enlightenment, influencing the United States Constitution and Bill of Rights in the eighteenth century, and shaping the United Nations' Universal Declaration of Human Rights the twentieth century. And here we might note that Harari's notion of a humanism so broad as to include communism and Nazism may represent a departure from the more commonly held view. The view of humanism more commonly held is that of "liberal humanism" — a view of humanism so closely associated with freedom — *Liberté* — that the word becomes a part of its meaning. When Harari establishes the parameters of humanism so expansively as to include political systems associated with totalitarianism or authoritarianism, he places the emphasis of the meaning of humanism somewhere other than its long association with freedom. This form of humanism emphasizes the "human" in humanism, and downplays these other aspects of Renaissance humanism. Being human, having the mark of humanity, is what distinguishes us from all other animals and all other phenomena.

Naturalism

The early humanists of the Italian Renaissance developed the understanding that even though man is endowed with a soul that allows for a measure of freedom, he is a natural being as well — with a body composed of natural elements. As natural beings, humans have material needs and an innate responsiveness to the natural world that allows those needs to be met. This insight might not seem remarkable until placed in context. Human culture was coming out of the medieval period, with its ascendent religiosity and Scholasticism, that idealized the life of the aesthete, the other-worldly monastic, as the pinnacle of human attainment. Although, according to Church doctrine, the human soul would temporarily take residence in the material world, Scriptural guidance was to minimize the indulgences of the flesh. Separateness from the material world and from temptations of sense were to be celebrated. In contrast, the humanistic trend of thinking brought human nature back into contact with the natural world, and in good kilter with the elements that nourish us and bring pleasure. This turn away from the spiritual and toward the natural was anathema to the sensibilities of the Middle Ages; to have an ethics — an ethics of utility in how we get our needs met — that was oriented toward the world and not the divine would have been thought impious, at minimum.

Viewing humans as fully part of the physical environment, and indeed functioning with physical bodies made up of natural elements, opened the door to the life sciences of biology, physiology, and anatomy as applied to humans. Socrates' imperative to "Know thyself" may be viewed as an early introspective method that prefigures the science of psychology.

Historical Perspective

This reconnection of man with the physicality of his being was an aspect of the "return to antiquity" of Renaissance humanism, and the philosophers and writers of classical Greece and Rome were reexamined in their historical context. Classical Greek philosophy had clearly been a preoccupation of the Scholastic period as well, although their treatment of the views of Plato and Aristotle were thought by the humanists to be detached from their historical contexts and used only to serve the purposes of contemporary Scholastic discourse. They lacked, according to the humanists, historical perspective — much as pre-Renaissance painting lacked the optic perspective that would allow objects to be presented in proper, spatial context. Being unable to appreciate Platonism and Aristotelianism in relation to what the historical Plato and Aristotle may have said and meant, left their treatments of the topics to be lifeless specimens of what once were living intellectual interchanges. The philosopher Epicurus was viewed with renewed interest due to his development of moral tenets that incorporated hedonic values into a system of balanced and moderate engagement with the pleasures of life.

This revival of the natural aspects of human nature by the humanists is especially pertinent to the potential for how twenty-first century humans might view their place in the natural world.

Religion

Connection with the divine was not abandoned by the humanists, but the supernatural aspects of a person's life were no longer considered paramount. Here again, we find Renaissance humanist thought making a "return to antiquity" and looking to classical Greek philosophy and culture as models to be emulated. The Greeks were seen as having developed reasoned ways of understanding the world that took a step away from reliance on myth and religious tradition as primary explanatory schemes. Pre-Socratic, and perhaps prehistoric thinkers, were viewed as having developed abstract schemes that began by naming general categories of things — kinds — into which individual concrete entities could be classed and differentiated on the basis of their qualities or predicates. Logic as a conceptual tool can then provide a way to understand entities based on the abstract categories they may be considered members of. Thus, human rationality began to replace religious scripture as the preferred means for coming to know the universe.

Science

The association of humanism with naturalism is especially pertinent to the development of the sciences in modern Western culture. As mentioned above, Harari observes that theistic religions have been on the decline over the past 300 years. The reasons for this decline are no doubt many, but not least of them would be the emergence of the sciences as methods for explaining the world in ways that do not rely on a Creator to account for the world's design and ongoing operation. At first, the Renaissance Church demanded homage from the scientists and repentance from those who questioned scriptural doctrine, and required that the findings of science be brought in line with Church dogma. However, as time went on, science was better able to go its own way. Even though many present-day scientists and scholars claim to embrace both a belief in God and a belief in the mathematical and empirical bases of science, their spheres of influence in the lives of these men and women tend to be separate. While science and religion may tolerate one another in polite company, they sleep in separate beds.

Jamesian Humanism

A good articulation of the humanist position at the beginning of the twentieth century was made by William James (1910). This was an especially important time for humanist thinking because it could now be informed by Darwin's theory

of evolution. James incorporates many insights from evolutionary theory into his conception of humanism. Because a central question of this paper has to do with how our views of our humanity affect the way we relate to the natural world, the fact that we have evolved through the process of natural selection is an essential one.

Nonetheless, even though we may fully recognize that we are organic beings inextricably connected with nature, this insight may not prevent us from treating nature, and its non-human inhabitants, in purely objective and rapacious ways. However, the more we see ourselves as intimately connected with, and not essentially different from, this world of plants, animals, landscapes, and ecosystems, the more we would likely be to value them for their own sake — as kindred beings and nurturing environments. This is the hypothesis, at least, that bears on our questions of interest. Therefore, in order to test this hypothesis, we will engage in a comparison of the Jamesian, evolutionarily-informed humanism, with the “natural religion” humanism presented by Harari. These two types were not chosen because they perfectly typify divergent theories of humanism, but rather because they epitomize certain elements that bear on the question of interest: Does how we view ourselves vis-à-vis the natural world affect how we treat it?

Their differing views of humanism may be distinguished on the basis of three dimensions that have relevance to the question of how we relate to the natural world, and how we treat it: the nature of truth, the nature of the self, and how exceptional we are as compared with other animals. And, perhaps something should be said about the two theories at the most general level. The view of humanism formulated by Harari may best be considered a somewhat imprecise, non-technical, unrefined popular philosophy. It consists of a less than fully integrated set of commonly held beliefs that might guide the thinking and behavior of the average person. Alternatively, James’s view is that of a professional philosopher. As such, it is couched in precise terms that are used in reasoned argument. While there is absolutely no rule that says the beliefs of the average person will miss the mark more often or more completely than those of the professional philosopher, the following explications will reflect these stylistic differences in the way each form of humanism bears on the issues of interest.

The Nature of Truth

As a historian, Harari attempts to portray humanism in a non-normative way, a description of humanism as it actually reveals itself. In point of fact, Harari argues against some of the key assumptions of the theory of humanism he presents, as well as the beneficence of its implications. This version of humanism is presented as a form of religious belief, based in superhuman principles that are thought to be immutable, but are nevertheless not dependent on a supernatural creator. In more technical terms, this view would qualify as a form of idealism. The world reflects an order that cannot entirely be accounted for on the basis of the empirical facts.

That order is independent of the world, and the world conforms to it. This kind of truth can be discovered but not created by humans. In Harari's telling of it, the superhuman principles that support humanism were originally divine in origin. They were articulated in the Scriptures of the Judeo-Christian tradition. Humans were created in the divine image, separate and apart from all the other creatures of the world, creatures placed in the world for the benefit of humans. This was all well and good until, in Harari's view, God came to his untimely demise — a slow loss of influence that occurred over centuries — but a death nonetheless.

Harari's (2017) interest in humanism has to do with humanism's being a moral system that, in the absence of theistic belief, complements the amorality of science and helps guide us in shaping our future into the twenty-first century. He refers to the relationship between science and religion as "the odd couple." According to Harari, we humans were spared the descent into moral chaos that should have come with the death of God (for many) by humanism. The specialness of humans, and their rights, were conveyed from the Creationist myth to the humanist myth. This transition has arguably served us well. We still think in moral terms — what is good and bad — and generally act accordingly even in the absence of threat of damnation.

Harari goes on to point out that, at least in the West, the belief in a Supreme Being held by some has more the character of a deism, an abstract notion that people can accept or reject without much consequence. Either way, science will provide an explanation for "creation," and humanism can provide guidance with regard to a moral and worthwhile life. The religious systems present during earlier civilizations, and present in some parts of the world today, offered the final word on morality and how best to live one's life, and that word had the character of being absolute truth — dominating the social structures of the time and place and not dependent on human sensibilities. Nowadays, in most of the world, people have the free option to accept or reject belief in a Supreme Being. If such a belief enhances the life of the believer and it does not run afoul of the full countenance of other beliefs held by the adherent, so be it. However, if belief in God in the modern-day adherent no longer works, or fails to jive with one's other beliefs, it can be discarded and replaced. The "natural law religion" of humanism can be adopted — with or without belief in a deity.

Whereas Harari takes the idea of "natural law religion" as the starting point for his discussion of the belief structure of humanism, James does the opposite. Recall that natural law religions, while not divinely inspired, nevertheless find their authority in principles that are immutable and not the result of human construction. James (1910) cites the formulation of humanism by F. C. S. Schiller (1902) as the inspiration for his own view. For Schiller, humanism is the doctrine that truths are essentially human-made. The questions we ask in our pursuit of truth are shaped by our human motivations, are directed to meet what we find satisfying, and always have a "human twist." Schiller asserts, "The world is essentially

. . . what we make of it. It is fruitless to define it by what it originally was or by what it is apart from us; it IS what is made of it. Hence . . . the world is PLASTIC” [shapable] (p. 60). James (1910) goes on to explain that Schiller’s view is not a variation of subjective idealism that dismisses the limiting factors of a world that exists independent of our knowing it. Rather, the independent world is delved into as the subject of our truth inquiries and provides resistance to mistaken hypotheses. The statements that qualify as “true” are thus shaped by this world; however, these assertions of truth are primarily determined by the questions we ask, by the interests that drive these questions, and by the directions we chose to pursue in our investigations. James also offers the qualification that the world we meet in our investigations is not entirely “plastic” in the sense that it gives way to the inquiries that test its reality. Instead, it would be better to say that our working models of reality are flexible to the degree that these models take shape in the mold of the purposes of our inquiry, and that the mold must flex around the structures or resistances it meets in the course of investigating the world.

For James (1910, p. 112), “‘Reality’ is in general what truths have to take account of.” This reality may be viewed as consisting of three parts. The first part is the raw data of the sensory input we encounter. James famously calls this the “flux of sensations.” The referent of this phrase is difficult to pin down because the act of envisagement will immediately impose a structure on it, which is, by definition, unstructured — a “flux.” James refers to this flux as “pure experience.” Interestingly, pure experience has neither subject nor object. The subject presumed to be having the experience, and the referent thought to be the object of the experience, are both constructed in the wake of the experience. The experience is thus “pure” in the sense of being unparsed — non-dual — in nature. So, sensations appear, sources unknown. They are given, neither true nor false. Only our formulations, what we make of them and say about them, are testable and subject to judgments of truth or falsity.

The second aspect of reality for James, which bears on our ability to take account of it, has to do with how these sensations coalesce into percepts that we discriminate, place in a field of perception, and assess in terms of their mutual relations. The first step of this process involves placing percepts in contextual spatial and temporal dimensions; it is only within these dimensions that comparison can occur. According to James, at the most abstract level, sensations have the attributes of intensity and extensity, with the latter being “the original sensation of space, out of which all the exact knowledge of space that we afterwards come to have is woven by processes of discrimination, association, and selection” (James, 1890, vol. II, p. 135). On the other hand, simple sensations have no attribute of duration. It is only when sensations coalesce into percepts of some complexity that they take on “the echo of the objects just past, and, in a less degree, perhaps the foretaste of those just to arrive” (James, 1890, vol. I, p. 606). So, there is a coming-and-going of the objects of consciousness that constitutes the “stream of

consciousness.” “Consciousness is in the form of time.” Interestingly, James claims there is no present moment in consciousness, only the sub-feeling of something that comes followed by the sub-feeling of something that goes; past and future are divided by an indivisible, and hence abstract, non-existent, instant. Thus, he adopts a previously coined term, “the specious present” — a present that is an abstraction with no concrete existence. At minimum, the present moment contains a beginning and an end — it has duration.

The second step of the process of sorting the elements of reality involves the immediate recognition of ways in which our percepts are similar and dissimilar, the integration of these percepts with one another to form objects, the discrimination of foreground from background, and the perception of how objects relate to one another in terms of size and proximity in the perceptual or conceptual field. The term “object” is here used loosely, because objects are not perceived directly but rather abstracted on the basis of their perceived qualities. This second step provides the context within which we can organize the elements of our worlds in terms of categories and mathematical and logical relations.

The third part of reality consists of the catalog of our experiences and knowledge — our “apperceptive mass” — that was generated by the prior applications of the processes described above. These are the beliefs and expectations we bring to new experiences, which might be considered anticipations with regard to what new encounters will reveal. These implicit expectations tend to give form to incoming experience and may operate in the way we think of confirmation bias. Pure experience is instantaneously shaped by these expectations; however, these expectations — and the “truths” based on previous experiences — are not entirely entrenched. This is an important way that reality holds sway over the truth value of our perceptions and beliefs, by resisting our expected outcomes, frustrating our hypotheses, and therefore guiding our beliefs as to what is consistent with an independent reality.

For James, the above analysis serves as the very basis of humanism. There is no denial of a reality apart from our ways of knowing it, or even contending that it is unknowable as is a tenet of Kantianism. The world we live in is a human world, not because there is no independent reality, but because our processes of attention, discrimination, and association mold or carve that reality into one that fits our interests and suits our purposes. And before we step away from James’s conception of humanism, we should note that his humanism is intimately tied up with his theory of truth — pragmatism. In essence, James’s pragmatism holds that truth is an attribute of statements we make about the world; that all statements of truth are hypotheses; and that the statements or beliefs that have consequences that are good for us, that serve our higher values, are truer than those that do not — so long as these beliefs are not inconsistent with the mass of beliefs about the world that we have already logged as being true, and do not violate our sense of logic. So, the pragmatic aspect of testing the truth value of a belief involves

looking to the consequences of holding that belief. Truths that do not have meaningful consequences are, by definition, inconsequential — meaningless.

James takes no firm position on the existence of God, other than to say that the notion of a personal god — an all-knowing, all-powerful being who takes an interest in the plight of each and every person and weighs in on their fate — has some major problems. For example, citing the “scale of evil actually in sight” in the world, he concludes that a “God who can relish such superfluities of horror is no God for humans to appeal to” (James, 1910, p. 69). Further, “We can with difficulty comprehend the character of a cosmic mind whose purposes are fully revealed by the strange mixture of goods and evils that we find in this actual world’s particulars (James, 1910, p. 56). For his own part, James (1910) did say:

My belief in the Absolute, based on the good it does me, must run the gauntlet of all my other beliefs. Grant that it may be true in giving me a moral holiday. Nevertheless, as I conceive it, — and let me speak now confidentially, as it were, and merely in my own private person, — it clashes with other truths of mine whose benefits I hate to give up on its account. It happens to be associated with a kind of logic of which I am the enemy, I find that it entangles me in metaphysical paradoxes that are unacceptable, etc. . . . I personally just give up the Absolute. (pp. 41–42)

It is interesting to note that James (1896) stated his regret at having titled his famous monograph, “The Will to Believe,” and not “The Right to Believe.” The reason for his regret was the confusion he thought to have been caused by the term “will.” The argument of the essay is typically considered to be a defense of the “right” to believe in God, with the term “will” just confusing things. But in the context of his pragmatism, the term “will” is appropriate. In essence, James’s argument is that in a matter of such great importance as the meaning of life and the place of a superordinate plan that might make sense of it, the types of evidence one takes into account need not be empirical and objectively verifiable. James himself counted “inner experiences” as being of primary importance in determining the existence and relevance of an Absolute. So, in the matter of religious belief, the nature of truth is as it is in other realms — pragmatic. If belief in an Absolute serves the good or wellbeing of the individual by supporting their higher values, and it does not come into conflict with the manifold beliefs they have about existence, and does not result in logical inconsistencies, their will to believe is justified.

Nature of the Self

For Harari, the key element of the creationist myth that was conveyed to humanism was belief in an essential, unitary, unique, and sacred nature of the human self. Recall that it is the human self that makes humans “fundamentally different from the nature of all other animals and of all other phenomena,” and

justifies the thesis that “[t]he rest of the world and all other beings exist for the benefit of this species” (Harari, 2015, p. 230). Although Harari argues against the logic and wisdom of this conveyance of human’s sacred nature, he contends that the torch was nevertheless passed. Further, the transmission of this belief accounts for the enshrinement of “human rights” as an article of faith in the humanist myth. Even though this human essence may not be eternal or of divine origin, this sort of humanism holds that we do possess a self that is unique and set apart from all other creatures.

Interestingly, Harari (2017) argues against the possibility of the existence of a unitary, individual self — this “essential spark” — on the basis of evolutionary theory. The argument runs as follows. If the self of the human being is an individual unity, then the self cannot be divided, i.e., the self is not a composite of other things. Many things, large and small, can change in a person’s makeup over time — cells divide, wear out, and are eliminated as waste; a person’s image of themselves changes from birth to adolescence and beyond; learning occurs, knowledge accrues, and sensibilities may eventually fade. But a unitary self remains the same, unchanged in its essence, from birth to death.

Evolutionary theory has it that biological entities come into existence through the selection of their component traits, one by one, as the result of the viability, or lack thereof, of such traits over generations. The salamander and its component parts evolved gradually; traits conducive to survival and reproductive success are passed from one generation to the next; less helpful traits fall out of existence and disappear at the end of a line of descent in the phylogenetic tree. Harari (2017) argues that something unitary — which is not composed of constituent parts, and which cannot change — cannot come into existence through natural selection. For example, the fingers used to type this page, like the fingers of that salamander, appear to have evolved from a fish that had digit bones in its pectoral fins that probably helped support its transition from water to land (Long and Cloutier, 2020). The number of evolutionary steps that occurred over the 380 million years that culminated in these human fingers is beyond comprehension — minute variations, generation after generation, the vast multitude of which were shed along the way. Something that is indivisible and immutable cannot come into being, cannot become a component of a biological entity as the result of evolution and natural selection. So, if humans do indeed have unique, essential, indivisible souls, humans in their entirety are not the product of evolution as we believe all animals to be.

For his part, James does not hesitate to delve into the question of the existence of a pure principle of identity, of a self. On the one hand, he notes that if by “self” one means a substantial soul, or transcendental principle of unity, the proponents of such conceptions have yet to provide positive accounts of what the actual nature of such selves might be. On the other hand, he argues that David Hume’s analysis of the self which concludes that it consists of nothing other than a bundle of

perceptions connected by an association of ideas — that there is “no self” — “runs against the entire commonsense of mankind” (James, 1890, vol I, p. 330). James consequently endorses neither the “spiritualist” notion of a substantial soul, nor the conclusion of Associationism that humans are completely bereft of a personal self.

James (1890, vol I, pp. 330–342) begins his own inquiry with an unequivocal acceptance of the fact that, barring severe psychopathology, we have a consciousness of personal sameness over time and that we can distinguish those thoughts that are self-referencing from those that reference elements of an objective world. The former we experience as “warm and intimate,” the latter as “cold and foreign.” The “animal warmth” that accompanies current and past thoughts of the self becomes a “herd-mark” or “brand” that “runs through them all like a thread through a chaplet and makes them into a whole.” This coherence of thoughts that belong to me constitutes my phenomenal self — “I am the same self that I was yesterday.”

When confronted with the question of whether consciousness — the prime evidence for the existence of a self — exists, James (1904) concludes: it depends on what sort of existence. For James, consciousness is a process. Although it does “stand for a function,” there is “no aboriginal stuff or quality of being” that it consists of. The function of consciousness is knowing. Thoughts clearly exist. But, as to the question of whether there is a “self” that lies behind thoughts and supports them, James compares the question to that of whether there exists a substrate “matter” that serves to support the properties of objects that we can observe. James considers Locke to have debunked the idea that the existence of the properties of an object implies the existence of a substrate — matter or substance — that must support their existence; we can know nothing of the substrate itself apart from its properties. Common sense holds that it must be there, but all we have for actual data are the properties. James contends that the same applies to the existence of a soul. Common sense says that there must be something behind the thinking, something doing the thinking, but all we have are the thoughts. Introspect as we may, no self comes into view, just our thinking, our looking, our wondering. The closest James comes to identifying the nature of the self is to identify it with the passage of thoughts (and sensations, feelings, perceptions, discriminations, awarenesses) in a stream of consciousness. Unlike the Associationists, he does not assume there to be something in the nature of thoughts that makes them coherent and congeal into a sense of self — a self that has no existence. James contends that the empirical self consists of the Thought that is passing in consciousness at the moment. Interestingly, we cannot apprehend the present Thought until it passes. Thoughts cannot look themselves in the eye, they can only be seen as they pass to the latter portion of the “present moment.” According to James (1890), the passing Thought can be considered the actual, empirical self because it inherits the title from the previous Thought. Recall the “herd-mark” or “brand” that “runs through them all like a thread through a chaplet and makes them into a whole.” That brand carries with it the history of all

the passing Thoughts that constitute the empirical self, each in its turn. The title is conveyed from one passing Thought to the next. According to James, that is all the self needed for the science of psychology. Musings beyond that step into the metaphysical — unobservable, untestable, non-scientific — realm.

The Degree to which Humans are “Exceptional”

The very premise of Harari’s version of humanism is that humans are exceptional. His contention bears repeating:

Humanism is a belief that *Homo Sapiens* has a unique and sacred nature, which is fundamentally different from the nature of all other animals and of all other phenomena. Humanists believe that the unique nature of *Homo Sapiens* is the most important thing in the world, and it determines the meaning of everything that happens in the universe. The supreme good is the good of *Homo Sapiens*. The rest of the world and all other beings exist for the benefit of this species. (Harari, 2015, p. 230)

In point of fact, however, according to Harari, we are not “exceptional” due to any qualities that inhere in individual humans, but rather because humans as a species underwent a cognitive revolution about 70,000 years ago that permitted us to create an “intersubjective reality” populated by shared myths and stories that motivate us to work together, collectively, to accomplish feats no individual or small group of humans could accomplish on their own. However, this specialness as a species would not seem to imply that we, as individuals, are exceptional — unusually good or outstanding — in a moral sense. Just the reverse — we are exceptional only on account of what we have created collectively — our sense of being morally exceptional is a function of our own story.

According to Harari (2017), from the time of the cognitive revolution in homo sapiens up until the agricultural revolution a millennium or so ago, humans related to other creatures — their prey and those that would prey on them — with a greater sense of commonality and connection than we now see in most current human societies. Only with the dawn of the agricultural era and the widespread domestication of animals for food and labor did our myths begin to portray humans as being entitled to dominate the natural world and its creatures. Now subject to the vagaries of drought, flood, and pestilence, humans were sorely in need of supernatural powers to intercede on their behalf to prevent the destruction of their crops and herds. Deities were cast in the role of intermediaries between humans and nature, who might be depended on to intercede on our behalf in return for our worship and sacrificial offerings (oblations usually consisting of domestic animals). As Harari put it, the cast of characters on the stage of life went from a multitude of actors interacting crossways, to just a few: the gods at the pinnacle, humans in the chorus, and all others relegated to the status of props.

So, what makes humans exceptional according to Harari? According to his portrayal of the humanist myth, humans are exceptional because they were deemed so in Judeo-Christian Scripture that came into play during the agricultural revolution — they were cast as masters of the lower creatures by virtue of their unique, essential “spark” or soul. With the passing of belief in the creationist myth, humans inherited an offspring myth that endorses their status as exceptional beings. This exceptionalism portrays humans as being of a different ontological status — a higher status — than the rest of creation. However, while the fact that we are able to collaborate, in multitudes, represents a definite evolutionary advantage, no difference in ontological status from other animals is implied. We are creative and highly adaptive, but not of a different sort.

As you might guess, James’s view of human exceptionalism is more nuanced. Coming of age in the throes of American modernity, James surely noted something pretty special, and yes, exceptional, about this species *homo sapiens*. The fact that humans created the cultures of the world tells us there is indeed something exceptional about *homo sapiens*. And yet, the term of identification is *homo sapiens*, one species among the order of primates, nested within the family of great apes. James described humans as the only “metaphysical animal,” capable of pondering the wonders of the universe, and as the only “talking animal,” able to generate and use symbolic language. But always “animals” — one species among a multitude in the great tree of life that Darwin saw into.

In James’s humanism, the connection with nature is there, notwithstanding the cultural and technical accomplishments of the species as a whole. We eat food, keep our dens, procreate, scavenge at our local grocers, and do much the same in many respects as our fellow domestic and wild species do. There is no place in the theory for when, where, or how *homo sapiens* became ensouled. It could have happened. Maybe it happened when Adam first coupled with Eve after the Fall. Or sooner in the development of the species? While this possibility cannot be denied, James understood the implications for Darwin’s insights, and his form of humanism can be viewed as a naturalistic, evolutionarily-informed humanism. That said, his insight into the nature of consciousness manifested in “inferior animals,” may have missed the mark.

As noted by Walter Veit (2023) and others, William James — the “Father of Consciousness Studies” — was an introspectionist during the heyday of this approach in American and European psychology. His starting point for observing and understanding consciousness was the human mind — his own mind. Consciousness is only observable subjectively, so where better to devote one’s attention if interested in the profound questions at stake? The problem is that human minds are accessible to human observers only. And, when speaking precisely, only one mind is accessible to one observer — the one with the one and only mind that is open to them, and to them only. So, we immediately encounter the “problem of other minds.” How do I know that I am not the only being who has a mind

or consciousness? I can ask others about their minds, but this only works if I am speaking with a creature who can communicate in a language that I am familiar with. And even then: Is this an AI automaton pulling my leg? Who's to know? And the problem quickly spirals when it comes to asking a fish I have just caught, "Do you feel any pain?"

So, James started his studies of consciousness in a seemingly logical place — his own mind — but, by implication, relegated the minds of other beings to an unknown and perhaps unknowable status. Human consciousness then appears to be special — exceptional — by default as it were. However, as the evolutionary biologist Veit (2023) and others have pointed out, introspection applied to human consciousness may not have been the best avenue for drawing out the implications of evolutionary theory for consciousness across species. We are coming to understand that consciousness, which is presumably a function that was selected and shaped by natural selection, very likely has its roots in phylogenetic development much, much earlier and more distant from the thread now present in the great apes. Only by starting to investigate consciousness with this presupposition can we hope to more thoroughly plumb its origins and its presence in the multitude of creatures that show its hallmark. So, James's humanism may have been less exceptionalist had he embarked with a different method. But that just demonstrates the resilience of James's theory of truth. When we have a belief, a hypothesis, we can put it to the test either empirically or logically. If the belief once thought true now seems less so, so much better for posterity.

James did directly address the question of whether our differences from "lower creatures" is absolute — "exceptional" — or merely relative, in an oft quoted passage:

I firmly disbelieve, myself, that our human experience is the highest form of experience in the universe. I believe rather that we stand in much the same relation to the whole of the universe as our canine and feline pets do to the whole of human life. They inhabit our drawing rooms and libraries. They take part in scenes of whose significance they have no inkling. They are merely tangent to curves of history the beginnings and ends of forms of which pass wholly beyond their ken. So, we are tangents to the wider life of things. But, just as many of the dog's and cat's ideals coincide with our ideals, and the dogs and cats have daily living proof of the fact, so we may well believe, on the proofs that religious experience affords, that higher powers exist and are at work to save the world on ideal lines similar to our own. (1910, p. 137)

A defensible conclusion on the question of the exceptionality of James's version of humanism is the we, as humans, are thoroughly embedded — body and mind — in the natural order of things. We are cogs in ecosystems, and the sooner we come to appreciate the outsized impact we have, the better. So, we might next consider what is at stake. What difference might it make whether we view ourselves as exceptional, unique, special in the order of things; or, alternatively, we see

ourselves immersed, face to face with our fellow creatures, in the tumult of climate change and environmental degradation?

Human Exceptionalism vs. a more Naturalistic Humanism: Potential Implications for the Environment

Human exceptionalism, being of the view that we as humans have no essential, moral connection with other creatures, would have a hard time arguing against human self-interest. I believe this is where we are, generally, when it comes to the attitudes of the average person with respect to concern for the environment. If it affects me, my children, people I am concerned about, perhaps even my broader group or my locality, then yes, I am concerned. If the effects of environmental degradation are seemingly distant from me, my loved ones, and my pocketbook, the problem is not on my priority list.

There are others who unmistakably feel a connection with other creatures, from insects to mammals, birds and reptiles — even fish! Knowledge of the suffering of other creatures elicits feelings of compassion. I believe this is a statement of fact, and I believe that this is one reason the environmental movement has become as robust as it is. I take this to be an indication of a sense of kinship with a world that includes a broad range of non-human beings, and a suggestion of the presence of a more naturalistic humanism in much of humanity, or perhaps a biocentrism for that matter. (Biocentrism, an ethical point of view that believes all living things have inherent value, surely has greater affinity with an evolutionarily-informed humanism than with human exceptionalism.) This is my hypothesis.

Perhaps one way of approaching the question of what material difference it makes whether we consider ourselves as an “exceptional” overlay on the natural order, or whether we consider ourselves to be part and parcel of that order, is to reframe the question: Are we of this world, natural beings through and through, or do we have an essential core that should more properly be thought of as inhabiting a uniquely human world? Let’s next review the major social-environmental challenges we face and attempt to determine what difference it might make whether we feel ourselves exceptional or of the natural order.

Ecological Overshoot

Simply stated, ecological overshoot occurs when the material demands on a system — the ecological system of the planet — go beyond the capacity of the system to meet those demands (Merz et al., 2023). To the extent that we see ourselves as an exceptional species, being of a kind that is different and ontologically separate from other animals, we may believe we are exempt from the natural limitations of the carrying capacity of the environment and consequently overshoot the environment’s ability to sustain us in the long term. As noted by the

population ecological economist William Rees (2024), the rapid growth in our material demands on the environment — closely related to human population growth — is a relatively recent phenomenon in the history of the human species. Humans have witnessed more change in population and technology in the last 200 years than occurred in the prior 250,000-year history of the species. Only for a person born in the early 1800s or later did it happen that they would see noticeable changes in technological advancement over the course of their lifetime. Born in 1914, my father went from seeing a sky mostly empty of technology other than kites, to witnessing the boom in propeller-driven biplanes and monoplanes in the 1920s, to jets in the late 1950s, to a moon landing in the 1960s, and to a night sky littered with satellites and even a space station before his death in the early 2000s. Because we were born into this world of rapid change in technology, change seems normal. Why shouldn't it continue forever? We have a story to explain why it will. We are outside of nature, and our technology will allow us to bypass the limits of ecological carrying capacity that apply to other species.

As generally applied to animal species, carrying capacity is “the average maximum population . . . that a particular habitat can sustain indefinitely without that species endangering or disturbing irreversibly that habitat” (Rees, 2024). Carrying capacity is not fixed for a species in a given habitat, but varies depending on changing conditions in its locality. Such conditions would include the amount of food available, which might vary as the result of weather conditions or competition with other species, the presence of predators, or the spread of infectious diseases. Local populations tend to rise and fall in response to such changing conditions. These changing conditions, along with changes in numbers of the local population, are considered to be limiting factors on local population size, which can multiply or crash depending on the presence or absence of these limits. The numbers of local populations are therefore kept in check.

As the result of our capacity to collaborate for scientific and technological advancement, we have been able to reduce, or stave off, many of the factors that limit our population size, such as medicine for disease, agriculture for food, fossil fuels for energy, and various methods for eliminating predators. Relatively recent improvements in public health and the consequent increase in longevity, in particular, have been an important factor in population growth. Compounding the effects of population growth on the ecological carrying capacity of our environment is the parallel explosion in our consumption. “Cheap” energy has given us greater access to a variety of goods and afforded an average increase in per capita consumption by a factor of 13- or 14-fold (Rees, 2024) over the past two centuries or so. Consumption inevitably results in waste as the result of energy and material expended in production processes, and as the result of product obsolescence, which has notoriously become more rapid. This waste must be reintegrated into the environment, by such primitive methods as burying, burning, or simply dumping in nonproprietary spaces, including our oceans. So, now we have a

massive increase in population, a massive increase in the per capita consumption of materials drawn from the environment, along with massive waste in the forms of carbon pollution, solid waste pollution, and chemical and radioactive pollution, all of which must be disposed of in the selfsame environment — the same square-footage of land and cubic footage of water bodies and atmosphere — that we had before the industrial revolution just 200 years ago. That is the meaning of ecological overshoot.

One recent estimate of ecological overshoot, operationalized as the number of Earths required to support our current world population at current levels of consumption and waste disposal, is 1.75 Earths (Merz et al., 2023). That means we would need an additional three-quarters of a planet of the size and quality of Earth to sustain ourselves. Given that we only have one Earth, we are seeing the consequences of overshoot in the forms of climate change, biodiversity loss, and the accumulation of toxic waste. And the human exceptionalist bible does not have a chapter on what to do when we exceed the capacity of our home to sustain us, because the assumption is that we are not entirely of this natural world. We are special and unique, of our own human world. However, a naturalistic humanism tells us that even though humans are indeed a generalist species, along with racoons and crows, able to survive under a wide variety of environmental conditions, we are nevertheless biological organisms and ultimately subject to the ecological limits of our environment.

Empirical Review of the Effects of Human Exceptionalism on Environmental Action

We have some evidence that human exceptionalism hinders environmental action. In a recent review of the relevant literature by Kim et al. (2023), the authors settled on a definition of human exceptionalism as “beliefs that humans and human societies exist independently of the ecosystems in which they are embedded, thereby promoting a sharp ontological boundary between humans and the rest of the world” (p. 358). One implication of this conceptualization is that “evolutionary constraints and ecological limitations do not apply to humans”; another is that “humans are in an ontologically unique category, separated by a conceptual chasm from the nonhuman natural world” (p. 359). Further, this conceptualization falls within a larger framework of interconnected knowledge and values, such as “humans are the most highly evolved species” and “human life is more valuable than the lives of other species” (p. 360). The problem with such statements is not necessarily that they entirely lack truth value — humans are indeed exceptional in many ways — but that they may lead to more far-reaching conclusions that are clearly mistaken, such as “human innovation and technology will allow the species to free itself of its relationship with, and dependence on, the natural environment.” Such beliefs may explain why news of environmental

disasters and impending threats of environmental “tipping points,” such as the melting of arctic permafrost and consequent release of large volumes of methane, seem to fall on deaf ears. If humans can be expected to innovate their way out of such predicaments, we may be just fine.

Kim et al. (2023) found that human exceptionalist thinking is common in U.S. undergraduate students and adults from Western, Educated, Industrialized, Rich and Democratic (WEIRD) countries. Such thinking is consequently widespread, and Kim et al. found it reflected in attitudes toward climate change. For example, they found the belief that humans will be much less likely to be subject to habitat loss, and will be much more likely to survive climate change regardless of which other species survive, to be commonly expressed. They found an asymmetry in beliefs about the degree to which humans impact nature, versus the degree to which nature impacts humans. Human exceptionalist thinking tends to see humans as having large impact on nature, but as being relatively impervious to the impacts of natural phenomena.

Kim et al.’s (2023) review nevertheless found that human exceptionalist thinking is not universal. They identified cultural differences among children; for example, children of an indigenous tribe in Wisconsin show little human exceptionalist thinking (Herrmann, Waxman, and Medin, 2010). They also found less evidence of such thinking in rural Euro–American children as compared with their urban counterparts. They speculate that informal experiences with nature, such as hiking, fishing, and hunting, allow for the direct interaction with animals and observation of their functioning in their natural environments, fostering ecological reasoning (Betz and Coley, 2020). Among adults, commercial fishermen have been found to exhibit higher levels of ecological reasoning (Shafto and Coley, 2003), and adults who are more adept at recreational fishing tend to show higher levels of proenvironmental behavior (Varade, Choi, Helmuth, and Scyphers, 2023). Another way that children can develop habits of thought that are less prone to be exceptionalist is through exposure to the cultural teachings and traditional ecological knowledge in indigenous cultures (Birkes, Colding, and Folke, 2000).

Potential Remedies

The following may be seen as the issues of greatest environmental importance that will be affected by the extent to which we view ourselves as exceptional beings who are not entirely of the natural order. Strategies for addressing these problems will be highlighted.

Population

According to Skirbekk (2022), human population growth for most of human history was limited by high infant and child mortality. As a result, from the time of

the agricultural revolution (circa 10,000 BCE) until 1700, world population grew, on average, by only about 0.04% annually. In 1700, world population is estimated to have been between 600 and 680 million people. As viewed on a graph, the trend in world population growth since the agricultural revolution would be a line very gradually ascending from the x-axis over time, trending more steeply upward between 1700 and 1900, then abruptly becoming nearly vertical over the course to the past century. Regarding twentieth and early twenty-first century growth, consider the following. When my father was 13 years old in 1927, world population crossed the 2-billion mark. It exceeded 2.5 billion just before my birth in 1952. At the time of this writing — December 2024 — it is approximately 8.1 billion. World population has more than quadrupled in the past 100 years (Eberstadt, 2024).

Now, even though human population had been expanding at an exponential rate over the past century, the past few decades have shown the greatest decline in the rate of population growth since the bubonic plague of fourteenth century Eurasia. The trend line has begun to level off. According to Skirbekk (2022), the recent spread of low fertility responsible for slowing population growth “is largely the product of what most people would consider improvements in the human condition: the expansion of education, greater gender equality, lower child mortality, better social safety nets, and vastly increased reproductive autonomy and control” (p. xiv). Further, “The increase in education is probably the main reason why global fertility has decreased, and increasing educational participation and attainment appears to be the most effective way to reduce fertility without resorting to coercion” (p. 2). Eberstadt (2024) contends that the net effect of the social and demographic factors that are curbing population growth can be encapsulated in a simple phrase: “a worldwide reduction in the desire to have children.”

With regard to the health of the environment, relatively low fertility — and slowing population growth — “may well be essential for the continuation of life on Earth” (Skirbekk, 2022). And yet, we hear the richest man in the world saying “‘population collapse’ is a bigger threat than climate change” (Bagenstose, 2022), and world leaders clamoring for efforts to raise fertility rates. Slowing population growth will, no doubt, require significant adjustments in economic policy and will affect the power dynamics among nations; however, the consequences of a species with a 300,000-year history of slow but steady population growth and then showing a quadrupling of its population in the timeframe of a single century would appear to be much more dire — especially in a species as expansive and voracious in its appetites as humans. Given that the population boom of the last century appears to be slowing as the result of naturally occurring social and demographic forces, and that we are already exceeding the carrying capacity of the planet, the calls from world leaders to reverse the trend seem especially misguided.

Eberstadt (2024) acknowledges that very significant stresses will be placed on world economies by a cohort of aging individuals who will have less and less material support from smaller succeeding generations. The power dynamics

among nations will also shift as the result of the fact that depopulation is occurring at different rates in different parts of the world. He is clear-eyed about the profound challenges to the economic and political status quo, but notes that government attempts to incentivize childbearing have failed to bring fertility rates back to replacement levels, and that future government policy “will not stave off depopulation.” He concludes that depopulation “is not a grave sentence; rather, it is a difficult new context, one in which countries can still find ways to thrive. Governments must prepare now to meet the social and economic challenges of an aging and depopulating world.”

Skirbekk (2022) argues that governments can best address demographic challenges by enacting policies that help individuals have and raise the children they want, rather than attempting to push women to have more children. He suggests that we encourage — or at least not discourage — the slowing population trends in developed countries, and work to facilitate the demographic shift to fewer children and smaller family size in less developed countries by fostering the changes that work: higher education, access to family planning, and generally elevating the economic well-being of the populations.

Before moving on from this topic, it should be noted that while the trend toward depopulation is encouraging, it does not mean that we are off the hook with respect to ecological overshoot. Recall that our current world population, consuming at its current per capita level, exceeds the carrying capacity of the planet by almost double. Some estimates are that population will peak at around 11 billion by the end of this century — almost 3 billion beyond our already unsustainable level. Further, small variations in factors related to these predictions may result in significant under- or over-estimates of population growth. We need to further empower women to have the number of children they want by ensuring access to family planning, and we need to provide adequate support for the care and education of the children they choose to have.

Consumption and Economic Growth

The science tells us that overconsumption is a key driver of ecological overshoot, and that there are several things individuals can do to help. We can limit our consumption of energy-intensive commodities, such as electricity, gasoline, and natural gas, and invest in energy efficient technologies to heat and cool our homes and power our vehicles. Or, we can simply travel less and live in smaller spaces. We can limit consumption of beef, lamb, veal, and dairy in order to use our land more efficiently and reduce methane emissions. Even though the impacts of such individual actions are limited, they’re nevertheless important because they help shape our personal identities and our sense that we are engaged with the natural world and trying to preserve it. However, collective effort is by far the most effective way to address the problem of overconsumption and overshoot. Our

continuing access to cheap, convenient energy has allowed us to overshoot many planetary boundaries (Merz et al., 2023). This energy is “cheap” because its price does not include its downstream costs to the environment and society. Not only do cheap fossil fuels produce the greenhouse gases that are warming the environment, they also decrease the actual costs of products manufactured with their use, such as concrete and steel, plastics, and a plethora of discretionary consumer products that end up overflowing our landfills and oceans. All of these products are much less expensive than they would be if their price reflected the true social and environmental costs they entail. Individuals can join with others and support organizations that represent their values and lobby their politicians to enact the policies and legislation needed to make the necessary changes.

The economic policy endorsed by a majority of economists as the best way to reduce our reliance on cheap fossil fuels and to have their price reflect their true costs on the environment and society is to place a price on carbon pollution (Thaler and Sustein, 2021). Carbon pricing is an elegant intervention that makes polluters pay and has many strong advantages. A carbon pricing plan can be implemented simply and quickly, a feature that is consistent with the urgency and direness of our present situation. A carbon price reduces greenhouse gas emissions across the whole economy, including the industrial sector and manufacturing, and consequently results in a general slowing of economic growth if properly implemented. (Some plans include the redistribution of the carbon fee on an equitable basis to the people affected by the fee; others redirect the proceeds to communities most hard hit by the climate crisis. Either way, the wealthiest would bear the greatest burden, as they are the biggest consumers and would consequently be footing the largest portion of the fee.) The domestic fee on carbon can be complemented by carbon border adjustment mechanisms that would place a fee on imported goods that were manufactured with cheap fossil fuels in their countries of origin. The policy has the potential for appeal across the political spectrum because it is a market-based solution that does not increase national budgets. And yet, in order to receive popular support, constituents would need to be environmentally minded and willing to see the lowering of their standards of living that will come with degrowth. The human exceptionalist creed tends not to support such attitudes.

Merz et al. (2023) contend that anthropogenic ecological overshoot, which is the result of both human population size and overconsumption, is actually attributable to a “deeper, more subversive modern crisis in human behavior” (p. 1). They call this crisis “the Human Behavioural Crisis,” a term used specifically to mean “the consequences of the innate suite of human behaviours that were once adaptive in early hominid evolution, but have now been exploited to serve the global industrial economy” (p. 6). This “innate suite of human behaviours” includes the human inclinations to seek pleasure and avoid pain, to aggregate resources, to display dominance or sex appeal, and to procrastinate when action

is not immediately called for; these are the human dispositions being manipulated by marketing science. Merz et al.'s (2023) contention is that our economic system depends on ever-increasing profits to sustain itself, and it consequently exploits innate human behaviors through powerful behavioural manipulation strategies — the “brave new world” of marketing — to increase demand for unneeded products and thereby meet their profit requirements. Thus, social psychological science is being used to deliberately drive the current levels of consumption that result in ecological overshoot. While human exceptionalism is not explicitly discussed as playing a role in these dynamics, consumers' exceptionalist thinking — for example, “it doesn't matter where the things I buy come from, or where they go when I throw them out; that stuff doesn't affect me” — would appear to be relevant.

Merz et al. (2023) argue that because the bases of the environmental crisis are actually behavioural in origin, a focus on strategies such as transitioning to renewable sources of energy are not effective because they target the symptoms of the problem and not the cause. Further, such efforts are futile because humanity's ever-growing demands are not self-limiting. The goal should consequently be to change human behavior. They advocate for the use of tactics that are not different in kind from those being used successfully by the marketing industry, but to deploy these tactics to accomplish a better outcome: to “steer our collective behaviours to conform to the natural laws that bind all life on Earth” (p. 15). Such a goal might be accomplished, for example, by interventions that target social norms of consumption and bring them in line with ecological considerations. They acknowledge the ethical questions inherent in engaging in the deliberate manipulation of behaviour, but argue that the alternative is to permit current manipulative marketing practices to dominate even though they run contrary to “the science of limits to growth.”

Adaptation to the Climate Crisis vs. Addressing the Causes

If we live in a uniquely human world, our fate is not necessarily bound up with that of other species. The clearest example we have of this in current times is the degree to which our response to the climate crisis involves climate “adaptation” as opposed to addressing the primary causes of the crisis. We can construct movable seawalls to protect our cities from sea level rise, condition the air of our homes and vehicles to mitigate the effects of ambient heat and wildfire smoke, drain our lakes and rivers and desalinate ocean water to supply our fields and swimming pools, construct buildings that will withstand category 5 hurricanes. In short, we can construct a fortress to protect our uniquely human world.

But here we find some evidence that the term “human” in human exceptionalism may be less than precise. Those left outside the walls of our human world include not only animals, but a significant minority — if not a majority — of other humans as well. Which humans? The less affluent, of course. So, the way in which

the developed areas of the world are focusing on adapting their living spaces, individually and collectively, to counter the effects of a world whose environment is breaking down demonstrates that the exceptionalism that we're talking about might better be termed the exceptionalism of the affluent among us. This should not be surprising. In any case, if our fate as humans is independent of that of the natural world, we need not worry too much about those left to fend for themselves as we lift the drawbridge to our climate-adapted human world.

This is not to say that there are not ways to adapt to climate disruptions that benefit humans and nonhuman creatures as well. Natural approaches to climate adaptation — such as restoring wetlands, reforestation, and revitalizing other natural environments to increase their capacity to sequester atmospheric and oceanic carbon, provide buffers to sea level rise, and provide sorely needed natural habitat — can be of benefit to all. But most every dollar spent on shielding humans exclusively from the damages of climate disruption is a dollar spent in the name of human exceptionalism.

Finally, there is an insidious and unavoidable problem for humans as well when we focus on addressing the effects of climate change primarily. Focusing our resources on adapting to the changes that come with climate change, without properly addressing the source problem, is like stacking sandbags around downstream houses without fixing the hole that is rapidly undermining the dam. In the absence of a plan to address the causes — greenhouse gas emissions — the effects will just keep coming and intensifying. Adaptation may protect the current generation in the near term, but it does little for the long-term prospects of upcoming generations.

Unfortunately, the current trend in developed nations appears to be away from any large-scale effort to do more to address the fossil fuel use that is driving overshoot (Young, 2024). Following the 2024 elections in the United States the incoming administration has shown little interest in recognizing the problem, let alone taking any sort of action. Even in the longer term, the opposition party seems satisfied with what they have accomplished with the passage of the Inflation Reduction Act even though it is generally understood that this package of incentives for greening the economy will fall short of achieving the nation's goal of reducing emissions by 50% by 2030. Consequently, action to address climate change is expected to shift to the local level primarily, and to focus on adapting local communities to the floods, sea level rise, water shortages, wildfire threats, and hurricanes and other extreme weather events that are on the rise.

Even our attempts to address the causes of carbon pollution by the greening of our energy sources are becoming a losing endeavor. As we devote huge sums to the conversion to renewable sources of energy, expand mining in sensitive areas and contemplate dredging the oceans for the resources required, take vast swatches of wild habitat and agricultural land to construct solar farms, repurpose aging nuclear plants and plan a new generation of modular plants at

costs unknown, the huge demand for power from AI data centers, computer chip fabrication, Bitcoin mining, and ever rising consumption are outstripping any advances that might be achieved by the contribution of green energy to the grid. Worldwide, fossil fuel use is not being replaced by renewables to any great degree. As rapidly as investment is flowing into the green energy markets, this trend does not really represent a “transition.” Renewable energy is simply supplementing our primary use of fossil fuels. Greenhouse gas emissions continue to rise. With all the hype, our supply of energy is not keeping pace with demand. And the ecological costs of the transition itself are becoming astronomical. As one example, in order to achieve the climate goals set by the Paris Accord, tens of millions of miles will have to be added to the world’s power grid to accommodate decentralized renewable sources of energy and to balance out their intermittent supplies — by 2040 (Merz et al. 2023). Ninety percent of the copper needed will come from open pit mines, which produce millions of tons of waste and disrupt the lives of humans and wildlife. Nevertheless, human exceptionalist thinking has it that our technological advances will save us, even as the numbers and the evidence say just the opposite.

According to Rees (2024), “the only thing worse that the failure of the energy transition would be the success of the energy transition.” His thinking runs as follows. The availability of “cheap” fossil fuels over the past 200 years has allowed us to ramp up our exploitation of natural resources exponentially. For example, without diesel-powered factory trawlers, we would not be able to deplete the world’s fisheries. Without cheap energy to power feller bunchers, skidders, and loaders, we would not be able to clear-cut the millions of acres of forests needed to produce single-use paper products and biomass to be converted to other types of “cheap” energy. Supplementing our energy supply with renewables constitutes “business as usual, by alternative means.” The exploitation of the planet will continue, as will the problem of what to do with all the waste. Climate change is just one symptom of ecological overshoot. There are limits to growth and we will have to confront them. In the absence of any change in our thinking about the matter, one has to wonder what the attainment of the pinnacle of unlimited clean power — nuclear fusion — would mean for the planet.

Psychological Distance from Nature and Nature Connectedness

Kim et al. (2023) discuss some constructs that are related to human exceptionalism and that may be of value in efforts to temper human exceptionalist thinking and thereby open the way for more proenvironmental motivation and behavior. “Psychological distance” is the subjective distance between one’s immediate, here and now experience, and things that are thought about (Liberman et al., 2007). Things thought about, or “construed,” are distant from immediate experience in the sense that they are representations of things that are abstracted, and that

consequently lose a degree of tangibility and thus seem less real. Psychological distance can occur along four dimensions: temporal, spatial, social, and “hypothetical.” The application of this construct in the environmental realm would more likely involve the dimensions of space and hypotheticality. For example, if a person thinks of the field, forest, or wetland as being “out there, somewhere” with few experiential memories, anticipations of direct contact, and little appreciation of the experience of immersion in those environments, they would be considered “psychologically distant” from those environments. Similarly, if a person enjoys ice fishing, the vanishing of lake ice over the past decade would tend to make global warming psychologically close, real, and not hypothetical for them. So, as applied to a person’s relationship to the nonhuman, natural environment, psychological distance would affect the degree to which the person has a repertoire of experiences that make nature tangible, real, and alive versus vague and spotty.

A second psychological construct that Kim et al. (2023) offer as being of relevance to human exceptionalism is “connectedness to nature” or nature relatedness. They define this concept as “the extent to which one is aware of and values the relationship between oneself and the rest of nature” (p. 363). They argue that people who feel related to nature in a positive way are more likely to feel commonalities with the natural world that would mitigate against the exceptionalist view of being separate from nature.

Kim et al. (2023) conclude that interventions that lessen people’s psychological distance from nature and ecosystems and improve their sense of connectedness to the natural world may serve as “levers” to lessen human exceptionalist thinking, and to “weaken perceived ontological boundaries between humans and nature more generally” (p. 364). They suggest that such strategies may be more successful in ameliorating human exceptionalism than by attempting to assail this mindset more directly. The advantage of this position is that it provides fruitful ground for generating hypotheses that might guide our thinking about such things as urban planning and childhood education. For example, in urban areas, does proximity to greenspace affect residents’ feelings of connectedness to nature and, if so, does this influence their attitudes toward the environment and their proenvironmental behaviors?

Additional questions left open are the following. How do we account for human exceptionalist attitudes among the arguably large number of people for whom the natural world is psychologically “close,” and who are well aware of their relationship with nature? We know that many who live in rural settings, and whose work takes place in natural, relatively undeveloped spaces — workers in the lumber industry, ranchers, miners — often lobby against, and vote against, proenvironmental legislation. Perhaps economic self-interest and the press to objectify and commodify nature serve to override more intimate forms of connection? Psychological closeness and feelings of connectedness with nature may be helpful, but not sufficient, conditions for overcoming exceptionalist thinking.

Finally, it would be helpful to identify ways for us to determine the extent to which we think of ourselves as exceptional, and ways to change or mitigate the impact.

Spiritual Connection with Nature

The hypothesis here is that a spiritual connection with nature will tend to increase proenvironmental thinking and behavior. There are many potential ways for people to connect with nature on a spiritual level. A person's choice of how to develop a nature-oriented spiritual practice will depend on their own sensibilities and religious or spiritual background. The following is offered as one example.

Buddhist meditation practices are directed to the undermining of the sense of a unitary, essential, personal self that is ontologically separate from the rest of the world. One such practice is *zazen*, sitting meditation associated with Zen Buddhism. In Buddhism generally, belief in a separate self — unique to the individual and separate from other beings — is considered a form of “ignorance” or “delusion” which, together with greed and hatred, constitute the “three poisons” — negative qualities of the mind that cause most of our problems and the problems of the world. The Zen approach emphasizes meditation as the means of seeing directly into the nature of the self, into its essential emptiness or “*sunyata*,” and seeing through the stories that tell of a separate self (Dogen, 1997).

As Buddhist teachings have migrated from one region to another in their long history, they have tended to be adaptive with respect to the new cultures that received them. For example, when transmitted from India to China, they were affected by the sensibilities of Confucianism and Taoism, the main religions or moral codes already present in China. This strand of Buddhism tended to become less philosophical and more practical in its approach as a result. The development of “Chan” Buddhism (“Zen” in Japanese) was the outcome of this adaptation. We are presently witnessing Buddhism's transition to the Americas and Europe. One adaptation appears to be that Zen's longstanding affinity with nature is translating into a close association with the environmental movement in the West (see for example, Snyder, 1990). Zen monasteries often have a contingent devoted to environmental issues (e.g., Zen Mountain Monastery),² and environmental organizations sometimes have Buddhist practice groups within (e.g., Citizens' Climate Lobby).³ David Loy (2018) has argued that Zen practitioners have something special to bring to the environmental movement, and that Zen practice can further the aspirations and resilience of environmental activists. This is a hypothesis in need of personal verification, for we know that even Zen masters are not immune

²Zen Mountain Monastery, Green Dragon Earth Initiative. <https://zmm.org/our-programs/earth-initiative>

³Citizens' Climate Lobby, Buddhist Action Team. <https://community.citizensclimate.org/groups/home/947>

to egotism and moral lapses (Thompson, 2020). But the argument has some *prima facie* appeal. The first precept or moral principle of Buddhism is to refrain from taking the life of another being, including animals. The ideal of Mahayana Buddhism, which includes the Zen school, is embodied in the Bodhisattva — a celestial being who seeks awakening, and whose wisdom and compassion are used to assist sentient beings and liberate them from suffering. Many environmental activists aspire to this ideal as well.

Conclusions

This review has confirmed one thing: the environmental crisis goes deeper than the climate problem, deeper than greening our sources of energy. It goes to the core of who we are. That's not a bad thing. Solutions can only come once the multiple causes of the problem have been identified. The precursors of human exceptionalism and its effect on the way we relate to the natural world appear to date back a very long way. According to Harari, the seeds were sewn millennia ago. The actual impacts of humans thinking of themselves as being unique, special, of a different kind from other creatures were quite limited until we developed the technologies that allowed us to massively ramp up our use of fossil fuels and put them to work in our factories, our means of transport, and our dwellings. The size of the human population was not a problem until we made advances in public health, in medicine, and in intensive agricultural practices made possible by fossil fuels. These advances have allowed us to circumvent the problems of disease and food scarcity that would otherwise have limited population growth. Now, with big jumps in population and in per capita consumption facilitated by cheap fossil fuels, we are faced with the consequences of human exceptionalism unleashed. We now have the choice of paying the piper by reining in growth in both consumption and population, or we can continue on a path that people in the know — climate scientists, ecologists, and ecological economists — say leads only to destruction.

The intention of this paper was to investigate the ideology that seems connected to the general complacency of a seeming majority of people in the face of the plain and compelling facts that our environment is degrading at an accelerating rate, and is in serious trouble. We have looked at two variations in how we conceptualize humanism — belief systems that tell the story of what it means to be human. We have found that one system — the human exceptionalism story — has allowed for belief in a uniquely human world that can drift away from the limits of the natural world, without consequence. However, we have seen that this uniquely human world inevitably draws its sustenance from a natural world of limited resources and of limited capacity to process waste. As we continue to operate under the illusion that technology will solve these problems, the time for finding real solutions is running short.

An alternative to this trajectory is currently viable and in many ways is already being actualized. The variation of humanism that can lead to a more positive course is one that is informed by evolutionary theory and one that recognizes our place as one species among many in the natural order. This view may not be ascendent because it may have less appeal for those who cherish the idea that humans have an “essential spark” that differentiates them from other animals and from that natural world itself. This more naturalist form of humanism can certainly acknowledge the many immense cultural accomplishments of the human species. The centerpiece achievement of this species is that it has spun tales and stories that give meaning to the world, and provide context for our artistic, scientific, religious, and philosophic endeavors. This sort of humanism is open to the natural limits of its ecological niche, a niche that encompasses the entire planet, and is willing to respect those limits even at a cost. Many people do see themselves as biological beings, through and through, and are actively working to preserve their natural home.

James, Harari, and all the researchers cited in this paper have much to offer with respect to our coming to terms with the environmental crisis and potential solutions. James tells us that humans do not change their beliefs easily, that new facts need to be integrated into our existing systems of belief and these systems are naturally prone to be conservative in integrating new information. But his contention is that all knowledge is pragmatic, that its ultimate power is its ability to serve our betterment. Given sufficient reason, our unproductive way of viewing the world can change. Harari explains that our systems of belief are not simply caldrons of facts organized along logical lines, but rather stories that interpret the facts and provide themes, explanations, and evaluations of our experiences. The main storyline that needs to be addressed if we are to avoid the worst consequences of ecological overshoot is that, while we may be exceptional, we are animals nonetheless — animals that are part of nature, not immune from environmental degradation, and that our technology will not save us. Our job as scientists, curators of the environment, and concerned citizens is to educate and advocate, to keep information flowing about what is happening to the natural world and, most importantly, the most viable solutions for addressing the causes. Changes in the environment are happening, and happening fast. The time will soon come when these changes will become all too apparent, and the thinking of the average citizen will have to accommodate the information and make the pragmatic turn in response. They will be well served, and the planet will be well served, if they are made aware of what needs to be done and how to do it.

So, here we stand at a crossroads. We can continue in the direction we have been traveling. This road is for exceptional beings, beings not entirely of this world. These travelers have the power to create their own world, one that is increasingly divorced from the natural world and one that may eventually become independent of the natural world. This is a world without consequences because it is a

fantasy world. If things start looking too dire, we can always call in the writer and demand a different ending — or so we think.

Or, we can move in a different direction. This direction is for humans who know they are a very special species, a species that has created an incredible world of their own within the matrix of the natural world. However, these humans understand that their world is tied very closely to the natural world. They understand the rule that nature has limits, and that there are consequences to violating this simple rule. The term to best describe the creed of these humans might be a “naturalistic humanism.” These humans might sometimes chafe at the idea of having to live within limits, but they understand that there are consequences of doing otherwise — consequences for themselves, and consequences for the breathtaking array of creatures they share their home with. Not everyone has to be on this road for things to change. An active and involved minority who are committed to the cause can have a big impact.

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