EDICIONES COMPLUTENSE

Con-Textos Kantianos
ISSN-e: 2386-7655

MISCELÁNEA

Kant, Human Nature, and Climate Change

Holly L. Wilson
Louisiana State University of Alexandria.

https://dx.doi.org/10.5209/kant.101547 Received: 09-03-2025 • Accepted: 21-04-2025

ENG **Abstract:** Kant scholars are divided on whether Kant's moral philosophy could be used to support moral consideration for animals. A good environmental ethics that has something of relevance to say to the threat of climate change requires that at the very least Kant can provide support for the preservation of the biosphere. We cannot get this directly out of his moral philosophy but we can get this out of his theory of human nature, not because humans are also animals, but because human beings develop technical skills that allow them to see a biosphere as a biosphere and understand the interconnected relationship between the biosphere, the geosphere, and the atmosphere which are all affected by climate change realities. In addition, because of the natural predisposition to humanity, human beings are also oriented to benevolence and happiness. Human beings are the only species that can perceive the connection between the climate, biosphere, and geosphere and human and animal happiness. Thus, human beings are exceptional, and it is to human beings that we should look to make changes to our energy consumption habits so that we can care for the biosphere, atmosphere, and hydrosphere for the sake of maintaining a stable climate that benefits human civilization, human happiness, and also animal welfare. Kant's reflections on the Lisbon Earthquake (1755) are seminal for understanding how he would respond to the crisis of climate change. His position is that humans must reevaluate what they consider is the appropriate approach to human happiness. We can work out an adequate environmental ethics using Kant's theory of human natural predispositions which include animality, technical capacities, capacity for happiness, as well as the moral predisposition because human beings have reason and exercise it in these distinctive ways.
Keywords: Immanuel Kant, Climate Change, Human Nature, Environmental Ethics, Happiness, Disasters.

How to cite: Wilson, H. (2025). Kant, Human Nature, and Climate Change. *Con-Textos Kantianos*. *International Journal of* Philosophy, 21, pp. 115-125.

Many environmentalists and animal rights advocates dispute that Kant is of value for helping us negotiate the current need for an environmental ethic. Even some Kantians, like Christine Korsgaard, are doubtful about the use of Kant's apparent valuing of human beings over other animals, especially, animals like us. She appeals to a kind of Aristotelian concept of final good in order to develop appreciation for other animals.[1] In the face of climate challenges, it is clear that we need an ethic that values other animal species, but as a species, and values their role in biodiversity, and hence accords other animal species moral consideration and value as a species rather than as individuals. Kantians have been using Kant to argue that we have indirect duties to other animals, but this is not enough for a climate change environmental ethic. A climate change environmental ethic needs an account of how animal species play a role in the biosphere and how that biosphere is affected by the atmosphere. A Kantian ethic of indirect duties owed to other individuals

[1] Toby Svoboda builds on Korsgaard's idea of a final good to bolster's Kant's ethic and make it more applicable to individual animals. Toby Svoboda, "A Kantian Approach to Moral Considerability of Non-human Nature," Journal of Agricultural and Environmental Ethics (36.4, 2023:22). The idea of the final good would make each individual valuable but in the biosphere, this is not really that helpful for environmental ethics and climate change, since there is also a necessary element of predation in every biosphere. Individual animals can be eaten and sacrificed to preserve the balance of the biosphere.

(human and animal) is insufficient for a climate change ethic. A climate change ethic needs to be global in nature and has to consider living and non-living systems.[2]

Some recent environmentalist critiques of Kant, like Chakrabarty's, doubt that Kant's emphasis on reason as a distinctive human trait can give us justifications for valuing biodiversity, since Kant seems to pit human reason against animality.[3] He suspects that Kant's emphasis on human reason blinds us to an appreciation of other animal organisms, including microorganisms. One of the great perils of climate change is the threat to biodiversity, and there is significant doubt among environmentalists as to whether Kant can provide reasons for valuing biodiversity and other animals and organisms. There is thus great doubt that Kant can respond to our climate crisis and give us the motivation to make the changes we need to avoid catastrophes like species extinctions that we anticipate with climate change and the warming of our atmosphere. Helga Varden, using Hannah Arendt, criticizes the way our rationalistic capacities have given us a false sense of superiority and caused us to distance ourselves from our animality thus making us unable to integrate our animality in a spiritually and ethically satisfying way. On the other hand, Inês Salgueiro argues for the need to discipline our animality and use our reason responsibly. So contrary directives come out of Kantian ethics. Is being in touch with our animality going to help us save human civilization or is using our reason to restrain our animality going to help us solve the climate crisis? Reason according to Kant is key.

Varden is correct that there is a kind of belief in the superiority of contemplative knowledge that accompanies the scholarly knowledge of modernity. I will go further and say that this belief in the superiority of scholarly knowing over faith has alienated some people, especially some Christians. These Christians have repaid the favor and rejected expert and scholarly knowledge about climate change. Yet without a consensus about climate change we cannot marshal the resources we need to make the changes that are necessary. What is the solution? Expert knowledge must also exhibit intellectual humility. This is something that is promoted by the Templeton Foundation as it mediates between faith and science.[4] Intellectual humility is also promoted by Plato so this is not just a faith-based virtue. Expert knowledge is partial knowledge since scholars and scientists become experts by limiting the scope of their knowledge through specializing. Therefore, it is pretty clear that expert knowledge is not comprehensive knowledge. There is a need for humanists/scientists to bring expert knowledge to a comprehensive whole and to convey it in a way that is accessible to non-experts. This is exactly what humanist/scientists like Bill Nye and Hugh Ross are attempting to do. Kant, also, attempted to be that kind of humanist/scientist in his day and time. He brought together commentary on the Lisbon earthquake with a reflection on the meaning of human life and happiness. Hugh Ross and Bill Nye are not associated with universities, but they nonetheless cite hundreds of scientific papers and scholarship to support their accounts of climate science. They make climate science accessible to non-experts.

This paper will argue why Kant is of great value to environmental philosophy as we continue to negotiate the possibility of addressing climate change and the threat that it poses because he too wrote what he called 'popular philosophy' meant to reach non-experts. In his popular work, *Anthropology from a Pragmatic Point of View,* he articulated a theory of human nature that can help us elucidate climate change issues. He also wrote three articles on the Lisbon earthquake that were addressed to the public. These works provide a framework for addressing climate change in our generation. In contrast to other environmentalists who find ways to value other animals and organisms at the cost of valuing human beings, Kant offers us reasons for valuing human beings not only because of their capacity for morality, but also because of their capacity for using reason. It is because human beings do have reason and can respond to reasons that we can appeal to them morally and appeal to their use of reason in making decisions about how to address the threat of climate change. Although our climate is not fully within our power, there are some ways we can affect our atmosphere in order to maintain a stable climate for the near future, but we need to motivate human beings to use their reason and restrain their excesses, and take into consideration how protecting the biosphere, the hydrosphere, and atmosphere will have a long-term impact on human well-being, happiness, and human civilization. Human beings, according to Kant, not only respond to reasoned arguments regarding morality but also to arguments about how to best deal with the technological options that confront the whole human species and other animal species because they have a technical predisposition. They alone are able to understand how the atmosphere affects the biosphere. In this human beings are exceptional.

In addition, human beings, because they have reason, can also respond to reasoning regarding the best means to the ends of human happiness. This may seem obvious, but it is not in the environmental literature because, as Varden argues, it may be that reason is at fault for our inability to relate to our own animality, and

---

2 Inês Salgueiro, "Kantian Animal Ethics, Deep Dignity, and the Moral Game," Environmental Philosophy, 21:1, 2024, pp. 5-29. Helga Varden, "Kant and the Environment," in Studi Kantiani (XXXV, 2022, pp. 27-48). Each of these current accounts of Kantian animal ethics would ground indirect duties for individual animals but would not help us understand our duties to a biosphere because within a biosphere individual animals can be sacrificed for the greater good of the biosphere and predation would be acceptable within a biosphere and would be something necessary for the biosphere to thrive. See also Vereb's argument regarding individual ethics and collective climate issues (2022).

3 Chakravarty argues in "Humanities in the Anthropocene" that Kant is impeding our ability to relate to climate change: "I argue, a critical turning point for the humanities today, as radically from a tradition—inaugurated by, among others, Kant—that made a strict separation between our "moral" and (i.e., biological) lives, assuming that the latter would always be cared for by the natural order" (p. 378). He writes further of Kant's philosophy that there is a "conflict within himself of both a moral species and a natural species" (p. 383). Chakravarty also holds that there is a fundamental distinction between the Holocene and the Anthropocene. This paper holds that the only difference between the two eras is an acceleration of anthropogenic emissions due to fossil fuels because human beings have been significantly impacting climate for the past 9,500 years.

4 https://www.templeton.org/discoveries/intellectual-humility (accessed 4.17.2025).

through that to other animal species. I do not think that the culprit is reason, but a lack of insight into the complexity of the situation we are facing. We need humanists/scientists who have insight into the complex relationship between the biosphere and the atmosphere to help non-experts understand that changes need to be made to human consumption practices in order to keep a good balance between the atmosphere and the biosphere. Scientists must use their reason to understand this complex relationship and humanists need to use their reason to mediate the findings of scientists to non-experts in a way that it makes sense and does not diminish the value of human beings. Scientists and humanists are using their respective technical skills to understand and resolve the climate crisis that we face. We need non-experts to trust the expertise of scientists. We do not need more animality, we need more reason. We need more people to trust reason, exercise reason, and understand that experts have more knowledge than non-experts. With the democratization of knowledge that came from the internet and widespread use of it, we have now the widespread demeaning of expert knowledge. Many climate skeptics seem to think that their opinions are just as good as any one else's opinions. But that is not true. Pilots have knowledge about how to fly planes that non-experts do not have, and climate scientists have knowledge about the atmosphere and biosphere that non-experts simply do not have. We need humanists/scientists who can mediate expert knowledge and build trust in climate experts, rather than cast doubt on experts. We do not need a critique of modernity; we need to learn how to trust experts. We do need to use reason to understand our own animality and relate to it better, and it is certainly not wrong to have feelings, but feelings of awe in nature are not going to solve the climate crisis.[5] We need reason for that.

1. Immanuel Kant's Theory of Human Nature and Reason

Kant holds that human beings have four natural predispositions.[6] Three of these natural predispositions predispose them to respond to reasons and to use reason: the technical predisposition, the pragmatic predisposition, and the moral predisposition.[7] Only the predisposition to animality is not structured by reason, but nonetheless submits to reason through discipline and self-restraint. We may need to discipline our animality in our consumption practices, in order to make a difference to our global atmosphere. However, this may not be enough. We need scientists, entrepreneurs, and business people to use their technical skills to solve the problems we have with our atmosphere and biosphere. We need humanists to help consumers understand the need for self-restraint.

Kant holds that one of the unique features of human beings that differentiates them from other animals is not just reason by itself, but that human beings are capable of reason. They are not the rational animal, as Aristotle held, but the animal capable of becoming rational.[8] In fact, the human being must be educated to use reason and develop their humanity. Human beings need someone who teaches them and hence appeals to their reason. While they have a need for a teacher (Herr)*, they also have a need to question every master and to think for themselves.*[9] Kant's enlightenment philosophy is still needed today. We still need to think for ourselves regarding the anthropogenic climate crisis. We need to question the authority of pastors and politicians who deny the crisis, and deny that we are capable of making a difference in averting it. Kant holds that we need to think for ourselves and think in the place of others.

It is no wonder that environmentalists write books and articles to other human beings because they are appealing to human beings to use their reason to change their minds and educate them to the threats that the human species faces. Human beings comprise the species that responds to calls to use their reason. They can change their perceptions, their behavior, their institutions, their goals, and the means they take to their goals and ends. This may seem obvious, but it is not obvious in the environmental literature which is often misanthropic. Some ethicists are pessimistic, and think we are not able to make a difference in the climate crisis. Kant would however be optimistic. A good deal of environmental literature is misanthropic – it blames human beings and reason (misology) for having caused our environmental problems and it blames human beings for being selfish and self-congratulatory (anthropocentric). As a result of a misunderstanding, Kant is also castigated as anthropocentric and anthro-supremacist, and blamed partially for the fact that we have the crisis we now have.

---

5 Varden, p. 35. Her paper is not about climate so this criticism is not faulting the paper.

6 See Holly L Wilson (2006) pp. 61-62, for the explanation of why there are four natural predispositions in Kant's philosophy although he mentions only three in the Anthropology from a Pragmatic Point of View in Kant, Immanuel: Gesammelte Schriften Hrsg.: Bd. 1–22 Preussische Akademie der Wissenschaften, Bd. 23 Deutsche Akademie der Wissenschaften zu Berlin, ab Bd. 24 Akademie der Wissenschaften zu Göttingen. Berlin 1900ff. (Anth VII 322 in Kant, 2007) and three in the Religion Within the Limits of Reason Alone (RGV VI 26 in Kant, Religion and Rational Theology, 1996). Varden (2022) argues that there are three natural predispositions in Kant (animality, humanity, and personality) because she appeals to Kant's Religion, but the Anthropology from a Pragmatic Point of View also has three natural predispositions (technical, pragmatic, and moral) which differ in account from the Religion. I reconcile the diverse accounts by arguing that there are four natural predispositions (animality, technical, pragmatic, and moral). We can confirm that Kant intends there to be four natural predispositions by his Lectures in pedagogy where he argues in several places that there are four goals to education of the human being (discipline of animality, instruction of technical skills, tutoring of pragmatic skills, and moralization through character) (Lectures on pedagogy, IX:449-450; IX:455; IX:470).

7 RGV VI 28 in Kant, Religion and Rational Theology, 1996.

8 Kant, Anth VII 321 in Kant, 2007.

9 Kant, "An Answer to the Question: What is Enlightenment?" in Immanuel Kant, AA VIII, 35 in Kant, Practical Philosophy, 1996; See also Kant, Anthropology from a pragmatic point of view (1798), in The Cambridge Edition of the Works of Immanuel Kant: Anthropology, History and Education, ed. by Günter Zöller and Robert B. Louden, Cambridge: Cambridge University Press VII, 200 in Kant, 2007. In the Anthropology, Kant enjoins the three maxims that one should think for oneself, think into the place of others, and always think consistently with oneself.

One of the reasons for the hostile perception of human beings is the narrow view of the climate crisis itself that focusses almost exclusively on the atmosphere and how human beings have accelerated their impact on it through anthropogenic carbon emissions. Astrophysicist, Hugh Ross takes a long view of human impact and argues that actually human agriculture, deforestation, and domestication of cattle created an usually stable climate for the past 9,500 years.[10] These human activities have warmed the atmosphere and contributed to stabilizing the climate so that all species on earth have benefited from this environmental impact. The norm for earth is not a stable climate.[11] Behind a lot of the hostile rhetoric against the human species appears to be an assumption that earth would have a stable climate for billions of years were it not for human beings and their use of fossil fuels. But that is not a complete picture. Human civilization, and the wide diversity of species we see today, have been possible in part because of human agriculture and human activities.[12] We have been contributing to the warming of the atmosphere through methane emissions and cutting down trees for the past 9,500 years and only now through the use of fossil fuels have accelerated that impact. Fossil fuels and cars have helped us develop energy sources that contribute to the further development of human civilization. The very fact that critics of the human species call this acceleration the "Anthropocene" in contrast to the "Holocene," is meant to cast doubt on human activity.[13] No credit and acknowledgement is thus given to human beings for creating a stable climate in the first place and for having produced incredible opportunities for human civilization. With the acceleration of emissions, the human species is being blamed for climate change and extreme weather. While this is true, it is no reason to become misanthropic and deny the larger picture of positive human activity. Human activity created a stable climate and that made human civilization possible. While now a few people produce food for the rest of us, we can engage in all the activities of human civilization. The freedom human civilization provides is enormous and so essential to human happiness.

On the other hand, we have realized our negative impact on our atmosphere in the past, and we have made changes in our activities to correct the situation. We might think that carbon emissions are different than acid rain and CFCs and HFCs[14] in that they are so much more wide-spread and harder to change but we need to resist the misanthropic voices and apocalyptic screaming, and get down to analyzing what steps we need to take to stop the acceleration of emissions into the atmosphere. Where we need the cooperation of everyone, we need to reason with human beings to gain their cooperation in our plans to change our impact on the atmosphere and through that our impact on the hydrosphere, biosphere, and atmosphere.

Human beings are capable of moral, technical, and prudential action based on reason according to Kant because these natural predispositions are based on reason. One can appeal to human reason. We cannot appeal to the reason of other animal species to change their behavior. Human beings must take the role of parental care for other animal species and for the biosphere. We cannot expect animals to join us in our attempts to mitigate climate change. Even though many animal species are becoming extinct because of climate change we cannot expect them to advocate for themselves. Human beings with technical skills and knowledge must be their voices. Even though an organism like COVID can pose a threat to billions of people and animals, we cannot appeal to reason in the virus to stop its damaging behavior. We need scientists to speak for viruses. Human beings too through their own actions are capable of effecting great damage to the planet, to many living organisms, species, and animals including to the human species, however we can only appeal to human beings' reason to change their cognitions and their behaviors that are threatening the planet. It is only the human species who has the ability to mitigate climate change and take biodiversity into consideration as it does that. Not every human being has to take biodiversity into consideration, but we can

---

10 Hugh Ross (2020) in Weathering Climate Change: A Fresh Approach writes in chapter 5: "For the past 2.580 million years (the duration of the ice age cycle) extreme climate instability has been the norm, excluding the past 9,500 years of climate stability." In chapters 14 and 21, Ross argues further that "these three human activities [domestication of cattle, deforestation, and agriculture] over the past 7,000 years not only helped to delay the onset of the next ice age, but they also contributed to maintaining an unprecedented period of extreme global climate stability." Hugh Ross is a Christian but that should not be used to dismiss his scientific credentials and credibility. His book cites hundreds of scientific papers and he is skilled not only as a scientist, but also as a humanist and can convey to non-experts complicated scientific ideas in a way that makes it clear how the atmosphere is linked to the hydrosphere and the biosphere. He is an astrophysicist and comprehends how astro-bodies also affect climate. Human beings are clearly exceptional among all species on earth since they are the only ones who are capable of understanding the connection between astro-bodies and climate, and climate and the biosphere.

11 Hugh Ross (2020) argues in chapter 14: "Until the last 9500 years the norm for the global climate was rapid temperature fluctuations of up to 14 degrees C (25 degrees F). But during this time global temperatures have varied by no more than plus or minus .65 degrees C. average global temperatures. This has been ideal for the development of human civilization. No matter what we do, the norm will return but we can delay it for a considerable time-period."

12 Hugh Ross argues that fluctuations in temperature prior to 9500 years ago meant that agriculture could not be large-scale. He argues that (chapter 14): "For about 10,000 years, our industry and civilization have been gradually increasing greenhouse gases in the atmosphere, warming our planet almost as much as the natural processes were cooling it."

13 Chakravarty (2016, 382) maintains: "Across millions of years of biocultural evolution . . . , certain systems remained outside the feedback cycles of hominin niche construction. Astronomical dynamics, tectonic shifts, volcanism, climate cycles, and other such forces were in essence untouched by human culture and behavior (or if touched, touched in a vanishingly small degree). In the language of systems theory, all these forces were in effect feed-forward elements: external controls that 'set' the feedback cycles from without, affecting the elements within them but remaining unaffected by the feedback themselves. . . . The Anthropocene ... registers a systemic rearrangement in which systems that had always acted as feed-forward elements from outside human niche construction have been converted into feedback elements within." The Astrophysicist Hugh Ross directly disputes this because human beings have been affecting the climate and the atmosphere for 9500 years.

14 Chlorofluorocarbons (CFCs) and Hydrofluorocarbons (HFCs). These chemicals have been phased out because they were negatively impacting the ozone layer. See Hannah Ritchie, Not the End of the World: How We Can Be the First Generation to Build a Sustainable Planet, New York: Little Brown, Spark, 2024, Chapter 2.

also change our laws and policies that will impact those who have significant effects on biodiversity. We can, for instance, continue to regulate the harvesting of whales which have such a huge impact on other species in the oceans, and contribute to the removal of carbon from the atmosphere through managing our forests and oceans.[15] All of this, undercuts the objection that human beings are anthropocentric. We cannot allow this accusation to undermine our ability to engage the climate crisis. We alone bear the responsibility for action that can restore stability to our climate. And we do not need indirect duties to other animal species to be convinced of that. We can see that the well-being of the biosphere is key to human well-being when we view the interconnection of the biosphere, the atmosphere, the hydrosphere and the geosphere. Human civilization has become possible because of climate stability, and the stability of the biosphere is also key to that continued stability.

Kant provides a framework in which appealing to human beings to change their behavior and engage in action in the face of climate change makes sense because he understands how human nature works and he understands what makes a human being a human being. In order to change human behavior to address the threat of climate change, we can appeal to human reason in four different ways: through moral claims, prudential claims, technical claims, and appeals to discipline human animality. Kant emphasizes the agential quality of human beings. He not only wrote works on practical philosophy but also works on prudence and pragmatic philosophy. He knows how to get action going and how to motivate people to transform their actions because he understands the essential and necessary ends that human nature seeks through reason. Kant understands wisdom. He attempted to apply reason to all kinds of practical issues in his own day, including to natural disasters.

When we take seriously the way that reason can be appealed to in these four areas, we can see that Kant's scaffolding and architecture of human nature is valuable for addressing the threat that climate change poses to human life and to other living organisms. Kant has a framework that is not only useful but also gives us the basis for being optimistic about our ability to address climate change, while providing a framework that is consistent with moral justifications that identify human beings as having dignity. This dignity ultimately means that human beings are responsible for their actions and that each individual human being matters including poor people, and that is why we can have a just expectation that human beings can change their minds and their behavior. However, human dignity also sets a limit to what can count as a solution to the threat of climate change. We could not, for instance, demand that human beings deny their reason in order to preserve biodiversity or that some human beings should suffer while others are benefitted. Nor can we demand that human species completely sacrifice itself for the sake of biodiversity. It may not sacrifice its animality by committing genocide or homicide, nor its capacity for using skills whether technical or pragmatic. There is a wide field of possibility where human beings can choose to use their skills, but they may not refuse to develop their skills and use them. Human beings may not deny their own happiness as an end in order to preserve biodiversity and end carbon emissions. They may have to redefine what happiness is, but they may not deny the end of human happiness, since it is an essential end for oneself and a moral end for other human beings.

In order to address greenhouse gases which are threatening to heat up the planet, human beings will have to discipline or restrain their animality using their reason and Kant is not opposed to this since animality is not the same as reason. Human beings must develop their humanity by discipling their animality.[16] Unlike some environmentalists who want to equate human beings with other species (animal egalitarians), Kant wants to distinguish human animality from reason, and argue that human animality, unlike the animality in other species, is not normative for human beings. Its ends are not essential, necessary, nor normative so human beings may and must discipline their animality in order to achieve their humanity. This discipline can take the form of changing eating habits, changing heating and cooling habits, or adapting new driving habits. For Kant, human happiness may serve as a reason for human beings in the form of corporations to use their skills to develop alternative means of energy or find ways to capture carbon emissions. Scientists must use their technical skills to give corporations and governments accurate feedback on the probability and success of these methods. Individuals all must reassess what makes for human happiness in order to limit what they eat and consume as part of their pursuit of well-being. Humanist/scientists must use their rhetorical skills to help educate non-experts understand the importance of biodiversity and the causality of anthropogenic climate change. Politicians need to use their skills to formulate laws that will help all people make better choices about the kind of energy we use and the kind of food we consume. All of this is feasible because human beings respond to moral reasons, develop skills, and interact with each other in order to secure their happiness, according to Kant.

In my book, *Kant's Pragmatic Anthropology,* I argue in Chapter 4 that Kant has a robust theory of human nature that is made up of four natural predispositions: the predisposition to animality, the technical predisposition, the pragmatic predisposition (or the predisposition to humanity), and the moral predisposition.[17] I maintain that Kant argues in the Religion that all the predispositions require reason and are subject to reason except the predisposition to animality.[18] This means, Kant does not believe the predispositions may be characterized by biologists, but rather they are subsumed under philosophy since the natural predispositions are subject to reason. What Kant means by this is that each predisposition is exercised through the normative

---

15 Hugh Ross (2020), chapter 20, section 5.

16 See David Baumeister (2022).

17 Wilson (2006, chapter 4).

18 Kant AA RGV VI 26 in Kant, Religion and Rational Theology, 1996.

use of reason. This also entails that animality is subject to reason in the other predispositions. All of the predispositions are ultimately subject to the moral predisposition in a hierarchy, which requires that all means and ends be subject to the moral law.[19] Each predisposition has a particular means to its development and particular ends. The ends of animality are sociability, procreation, preservation, and freedom. The ends of the technical predisposition are arbitrary and subordinated thus to other pragmatic and moral ends. The ends of the pragmatic predisposition are necessary and essential but must also be subject to moral ends. Every human being shares the four natural predispositions, and also share in what they create when human beings work together. The four natural predispositions create the disciplines of the arts and sciences and human civilization. All humans share in those realities more or less, and our climate challenges are the result of those shared realities, so climate change cannot be addressed by simply focusing on individual moral action alone.

I maintain that there are specific educational means to developing the predispositions: animality is developed through discipline (this means self-restraint or self-regulation). The technical predisposition is developed by cultivating one's talents into skills that meet arbitrary ends such as writing, reading, working, etc. The pragmatic predisposition is developed by forming one's skills for prudence – getting along with other people and collaborating with other people for the sake of one's happiness, and subordinating short term pleasure to long term well-being. Finally, the moral predisposition is developed in submitting one's maxims (used in animality, technical and pragmatic contexts) to the moral law. This human architecture appears to be a more global and complete framework to use to develop an environmental ethic because it is about the full human nature that includes one's animality, skills, and moral norms.

We can draw the conclusion that natural predispositions unite the human species because we participate in the natural predispositions communally. Reason unites the human species and hence the technical, pragmatic, and moral predispositions which require reason, are developed not just in the individual but in relationship with other members of the human species. The technical predisposition for instance gives rise to the disciplines of the arts and sciences. The pragmatic predisposition gives rise to human civilization, something all human beings share in common. The moral law particularly orients human beings toward one another.

2. Discipline of animality

Unlike other animal species, human beings can submit to a discipline of their animal inclinations. They have inclinations to nourish themselves, procreate, survive and be sociable. In the context of anthropogenic climate change human beings can discipline their animality in terms of what they eat. Instead of drinking milk and eating meat they can choose to drink other types of nourishment so that they are not contributing to the atmospheric gases that result from meat and milk production. Refusing to eat meat or choosing meat that does not have a huge carbon footprint (like Ostrich meat), and refusing to drink milk products can mitigate methane gas that enters the atmosphere when cattle and dairy cows are raised for food. Human beings are capable of changing the means to their nourishment because they are not linked inordinately to their environment like other animal species. However, there are agricultural situations among humans where this flexibility in nourishment is not as easy to achieve as in other contexts. Thus, it might make sense to expect developed countries like the US to develop alternative food and drink while tolerating more damaging agricultural practices in less developed countries while they create new strategies for nourishment.

3. Exercise of technical skills

Human beings, unlike other animal species, are capable of using their reason and technical skills to develop alternatives to the energy that derives from natural gas and oil. Technical skills use means to ends. The human being can abandon the ends if unacceptable or take other means to achieve them. This is the function of the hypothetical imperative on skill. Human beings can use their skills to develop ways to mitigate the gases that they are releasing into the atmosphere by switching to other energy sources or by developing tools that cut carbon emissions. Human beings are capable of understanding what an ecosystem is, and they have the foresight to see how they can negatively impact an ecosystem and the resultant biodiversity. Kant's moral law would not be subordinated to technical skills, but would rather subordinate technical skills to human happiness and morality. Therefore, it would be possible to reason with human beings to choose to engage in those technical skills that produce happiness, preserve biodiversity, and promote the well-being of all people, even poor people. Because technical skills are regulated by the hypothetical imperative, we can reason with people that if we reject a particular end – such as a particular type of energy consumption, we must also reject the necessary means to that end. Likewise, if we accept another end – preservation of biodiversity, then we must take up the necessary means to those ends if we are to remain reasonable.

Likewise, the issue of atmospheric conditions posing a threat to human and animal well-being is not something that is beyond human technical capacity. Human beings recognized in 1977 that acid rain threatened human and environmental well-being. Humans used their technical skills to mitigate the situation, and we resolved the threat. Likewise, when it was recognized that we were putting CFCs in the atmosphere and this posed a threat to human and environmental welfare, human beings used their technical skills to mitigate the issue, and we had a positive impact on our atmosphere. Finally, in many cities where the air quality had deteriorated due to pollution, human beings have again used their skills to mitigate the situation, and they have had a positive impact on air quality. We have every reason to believe that we can also mitigate

[19] Kant, Lectures on pedagogy, IX, 455.

carbon emissions and have a positive impact on our atmosphere. Kant has a positive evaluation of human technical skill as it is part of our human nature. Kant would not see any reason why we would artificially restrain human skill unless it were to negatively impact human happiness or go against the moral law. Carbon emissions that are human generated are the result of human exercise of skills. Since carbon emissions are causing greenhouse gases to warm the planet and the warming of the planet is causing extreme weather events which negatively impact vulnerable human beings, ecosystems, and biodiversity it is now evident that we must abandon the end of exclusively using carbon-based energies and diversify our energy sources, so that we can lessen the negative impact we are having on our atmosphere, biosphere, and hydrosphere. Or we need to learn how to sequester carbon so that it is not released into the atmosphere. Kant would not be defeatist and maintain that this is too great a problem for human beings. He would be optimistic and would not artificially limit human skill and ingenuity but subordinate all action to moral action.

4. Exercise of the pragmatic skills of happiness

Human beings are capable of happiness according to Kant. Kant's moral theory however over rules some interpretations of happiness for human beings. Because the moral imperative governs human action, it also limits the kinds of things human beings can take as productive of happiness. Again, the hypothetical imperative governs prudential skills. Human beings cannot use other human beings as mere tools to their happiness. Likewise, human beings may not treat other animals cruelly in order to be happy. Animals may be eaten when cultivated, but not oppressed. Animals may serve in experiments, but they should nonetheless be treated as individuals, and not just as instances. Kant illustrates this moral consideration with a worm that served in an experiment by Leibniz. Furthermore, human beings are capable of understanding that biodiversity is important to human happiness. Many medical cures can come from unknown organic beings. Other animal species may serve to enrich the ecosystem and play a role in maintaining the biosphere which human beings benefit from not only for technical uses and health uses, but also for pleasure and the experience of beauty. Biodiversity is key to maintaining climate stability.[20] Climate stability is key to civilization and human happiness. Human beings belong to the only species that is capable of seeing this overall picture and the connection between climate stability and animal and human welfare.

Kant's moral system demands that we take human happiness into moral consideration. The preservation of ecosystems and biodiversity can easily be seen as important to meeting human needs and human happiness. It would thus be wrong to neglect the needs of other animal species and their need to be persevered in ecosystems. Knowing that someday a particular unknown species may play a role in medical science, or play a role in the beauty of the ecosystem, gives us reason to engage in activities to preserve that species for the sake of human happiness. There is nothing that can limit this claim. Human beings are capable of seeing the interconnectedness of each living organism (microorganisms even) in each ecosystem and thus there is no inherent limit to the claim that biodiversity is a good thing and can contribute to human happiness. Experts are the ones who will know exactly how important a particular species is to the ecosystem. Whales, for instance, are a key to maintaining the ecosystem in the oceans.

As we gain technical expert knowledge of our earth and the likely effects of climate gases in raising the temperatures on the planet, we also become aware of how weather can become more extreme. Extreme weather events like hurricanes, tornadoes, fires, rising sea levels, mudslides, etc can bring about the extinction of species, affect biodiversity, damage animal and human habitats, and also negatively impact human happiness. We can anticipate that rising sea levels will affect coastal cities and many people who may not have contributed to greenhouse gases. Poor people are also very likely to be affected by warming temperatures due to greenhouse gases as it affects weather and crop production. Populations that are particularly tied to crop production may be especially affected by extreme weather. Because Kant believes in human dignity, he believes that all human beings matter and their happiness matters. This does not mean that animals do not matter but they matter through human beings since, for Kant, human beings only have indirect duties to other animal species. There is no reason to limit how much they will matter, however, since we can always characterize their importance in many ways and to many people. It is the capacity of the human species to have technical expertise that makes possible knowing how particular species play a role in maintaining the biosphere, and contribute to climate stability.

Kant is not an animal egalitarian but nor is he is an anthropo-supremacist.[21] Other animal species and biodiversity matter because those things affect human well-being in a myriad of ways. If anthropo-supremacy were true, each individual human being could proclaim superiority over every individual animal species. That is absurd. We cannot simply reduce all other species and biodiversity to arbitrary human ends, but must consider that human happiness is always to be subordinated to morality. If some human beings claim they are allowed to simply deprive all other human beings of the experience of rhinos, we cannot accord their claims as having the same status as the claim that rhinos should be preserved for the enjoyment of the whole human species. The reason we can say that is because pleasure is not the same as happiness for Kant. The claim of producing pleasure for one person cannot outweigh the happiness of the whole human species. Kant's moral system does not rely on a calculus of pleasure and pain, but rather on an account of what is required for human happiness and well-being. We have a duty to beneficence toward all other human beings, but we do not have a duty to do everything that another person holds as important to their particular perception of happiness.

---

20 Hugh Ross (2020, chapter 20).

21 Holly Wilson (2023).

5. Exercise of the moral predisposition

Kant has a moral theory that embraces the idea that there is a moral law, and that moral law imposes restraint on human action. Kant's account of the moral law is found in reason and hence is universally valid for all human beings no matter what niche or country a person resides in. This universal validity gives Kant's theory a powerful justification since it is claiming that all human beings are subject to the same moral law. We can reason with people from any other part of the earth because as a Kantian we believe the moral law has the same power over every human being's reason. However, within a Kantian framework we would not consider other animal species to be subject to the same moral law so human beings would have to parent other animal species and organisms and do what we consider best for the species taking as far a possible human happiness and animal happiness into consideration. Kant's theory takes seriously human responsibility for the environment upon which human beings depend for survival.

We can conclude this section on the natural predispositions by observing that all human beings have the same natural predispositions, and we can understand the reasoning of all other human beings as regards their animality, technical skills, skills for prudence, and also moral reasoning. No matter how diverse the circumstances and foreign the culture, we can understand the other human being and culture because of these four natural predispositions and our share in their fruits.

6. Kant and the Lisbon Earthquake

Kant may not have articulated an extensive environmental awareness in Königsberg, Germany, but his theory of human nature which he did articulate is sufficient to give us directions for an adequate and comprehensive environmental ethics that addresses climate challenges. Kant was attentive to the earthquake off the coast of Lisbon in November 1755, which killed tens of thousands and caused flooding and fires. The earthquake destroyed over two thirds of the human dwellings and buildings in Lisbon. Kant wrote three articles on earthquakes attempting to give a scientific explanation that would replace the superstitious idea that God caused the earthquake.[22] Earthquakes are not within our power to stop, but Kant thought we could build our houses in such a way that we could minimize the damages. He did not bemoan our helplessness, but rather put his mind to work determining how we could mitigate the damages caused by earthquakes. In his work on Religion, Kant makes it clear that we cannot rely on providence passively, but we should actively intervene in our circumstances:

> "Yet, human beings are not permitted, on this account to remain idle in the undertaking [of an ethical community] and let Providence have free rein, as if each could go after his private moral affairs and entrust to a higher wisdom the whole concern of the human race (as regards its moral destiny). Each must, on the contrary, so conduct himself as if everything depended on him. Only on this condition may he hope that a higher wisdom will provide the fulfillment of his well-intentioned effort."[23]

When Kant asserts in the "Speculative Beginnings of Human History," that "man became conscious of an ability to go beyond those limits that bind all animals," he is pointing to the capacity human beings have to intervene in the environment and care for realities like our atmosphere, geosphere, hydrosphere, and biosphere.[24] He continued that human beings can "...rule over the earth, and not as one designated as bovine contentment and slavish certitude."[25] We are not impelled to passively take whatever our environment or climate offers us but we can impact it positively so that it is stable. Everyone, he tells us, has a role to play in this project.[26]

So, although we should do what we can to mitigate the effects of natural disasters, we should also draw another lesson from such tragedies that are not within our power. The earth is not meant to bring us unmitigated happiness. We build houses that are vulnerable to destruction by natural disasters. Kant draws the conclusion that "Man is not born to build everlasting dwellings on this stage of vanity. Since his entire life has a far nobler aim, how well does this harmonize with all the destruction fit into this which allows us to see the transience of the world in even those things that seem to us the greatest and most important and to remind us that the goods of this world cannot provide any satisfaction for our desire for happiness!"[27]

Another way we can look at this is that our happiness, which is an essential end, is not meant to be fulfilled by physical material reality, but by our state of mind which must be prepared to seek happiness in a way that is not tied to our circumstances.[28] For Kant, our priority is morality, and we become worthy of happiness through accomplishing moral purposes. His reflections on the earthquakes led him to conclude that the earth is not

---

22 The three articles on earthquakes are translated and published in Immanuel Kant, The Cambridge Edition of the Works of Immanuel Kant: Natural Science (2012).

23 Kant, AA RGV VI, 100-101 in Kant, Religion and Rational Theology, 1996; see also (SF VII, 93 in Kant, 2007): Providence is a kind of wisdom from above. See also Zachary Vereb (2023) "A Kantian Philosophy of Hope for the 21st Century?"

24 Kant, AA MAM VIII, 50-51 in Kant, 2007.

25 Kant, AA MAM VIII, 57 in Kant, 2007.

26 Kant, AA MAM VIII, 59 in Kant, 2007: "Contentment with providence and with human things as a whole, which do not progress from but gradually develop from worse to better; and in this she herself has given everyone a part to play that is both within his powers."

27 Kant, AA GNVE I 460 in Kant, 2012.

28 Kant, AA, GNVE I 460 in Kant, 2012: "Thus, man is in the dark when he tries to guess the intentions that God envisages in the ruling of the world."

meant to provide human beings with happiness as sensible contentment.[29] He gives us an additional reason in the Groundwork why happiness as based on sensible conditions is elusive for human beings:

> "Now, it is impossible that the most insightful and at the same time most powerful but still finite being to frame for himself a determinate concept of what he really wills here. If he wills riches, how much anxiety, envy and intrigue might he not bring upon himself in this way! If he wills a great deal of cognition and insight, that might become an eye all the more acute to show him, as all the more dreadful, ills that are now concealed from him and cannot be avoided, or to burden his desires, which already give him enough to do, with still more needs. If he wills a long life, who will guarantee him that it would not be a long misery? (...) In short, he is not capable of any principle by which to determine with complete certainty what would make him truly happy, because omniscience would be required for this."[30]

Kant is saying we are not able to come up with a determinate conception of what will make us happy because we cannot control all of the consequences and circumstances in our lives. Riches, knowledge, and long life do not guarantee we will not be afflicted with other kinds of circumstances that will produce unhappiness. Even if we have riches, we cannot guarantee that there won't be a natural disaster that will destroy all we have. Knowledge cannot guarantee safety against a natural disaster. Even a long life does not guarantee we will have favorable circumstances in our bodies and in our lives. Natural disasters are not something we have within our power. Climate, on the other hand, is something we can influence and have been influencing for the past 9,500 years even if it is not fully within our control.

These Kantian reflections are important for us today as we face natural disasters of fire, water, air, and earth because of climate instability. We want happiness and stability, but with our excessive carbon emissions we are causing climate instability.[31] We are thus challenged to find some other understanding of happiness than the material one of sensible contentment. The fact that we have reason does not mean we are destined to use it just to secure our happiness. Kant's reflections on the Lisbon earthquake led him to conclude that: "The contemplation of such terrible occurrences is instructive. It gives man a sense of humility by making him see that he has no right, or at least that he has lost any right, to expect only pleasant consequences from the laws of nature that God has ordained, and perhaps he will learn thereby to realize how fitting it is that this [present] arena of his desires should not contain the goal of all his aspirations."[32] Natural disasters make us aware that our aspirations should extend beyond our happiness and immediate gratification as though we were no more than cattle. We have a destiny to use our reason not merely to be content and comfortable in our sensible being. Kant acknowledges in the *Critique of Pure Reason that:*

> "The human being is a being with needs, insofar as he belongs to the sensible world, and to this extent his reason certainly has a commission from the side of his sensibility which it cannot refuse, to attend to its interest and to form practical maxims with a view to happiness in this life and, where possible, in a future life as well. But he is nevertheless not so completely an animal as to be indifferent to all that reason says on its own and to use reason merely as a tool for the satisfaction of his needs as a sensible being."[33]

Kant does not deny human beings have needs as far as our sensible being is concerned but reason has a different destiny than to function merely as a tool of sensibility and comfort.[34] At the same time, he is also clear that we should have compassion on those who suffer natural disasters: "The sight of so many wretched people as the latest catastrophe caused among our fellow citizens ought to arouse our philanthropy and make us feel some of the misfortune that afflicted them with such cruelty."[35] But Kant also takes a detached view of natural disasters.[36] We are not treated better than any other species when it comes to natural disasters.[37] Our natural environment and climate do not give us a special place in creation. Instead, they impel us to use our reason, rather than allow us to rest in our happiness and contentment. When we use reason to gratify our sensible needs merely, we end up multiplying our needs and creating needs we cannot ever satisfy. This is the origin of greed and the consumerist society that the Vatican so deeply bemoans. Kant writes in the *Groundwork: "*(...) We do find that the more a cultivated reason engages with the purpose of enjoying life and with happiness, so much the further does a human being stray from true contentment; and from this there

---

29 Kant, AA MAM VIII, 57 in Kant, 2007.

30 Kant, AA, GMS IV 418 in Kant, Practical Philosophy, 1996.

31 Kant, AA GNVE I, 455 in Kant, 2012: "We demand that the Earth's surface should be so constituted that one might wish to live on it forever."

32 Kant, AA GNVE I, 431 in Kant, 2012.

33 Kant, AA KpV V, 51 in Kant, Practical Philosophy, 1996.

34 Kant, AA GMS IV, 396 in Kant, Practical Philosophy, 1996: "And to what extent one must admit that the judgment of those who greatly moderate and even reduce below zero the vainglorious eulogies extolling the advantages that reason was supposed to obtain for us with regard to the happiness and contentment of life, is by no means sullen, or ungrateful to the kindliness of the government of the world; but that these judgments are covertly founded on the idea of another and far worthier purpose of their existence, to which, and not to happiness, reason is quite properly destined."

35 Kant, AA GNVE I, 459-460 in Kant, 2012.

36 Kant, AA VUE I, 419 in Kant, 2012: "It is doubtless the goodness of Providence that lets us be unaffected by fear of such fates..."

37 Kant, AA KU V, 430 in Kant, 2001. Humans are no less prey to natural disasters than animals and prey to domination, greed, violence.

arises in many, and indeed in those who are most experienced in its use, if only they are sincere enough to admit it, a certain degree of misology, i.e., hatred of reason (...)."[38] The resultant hatred of reason comes from the misguided attempt to use it merely to satisfy our excessive sensible needs. Instead, I think we can conclude that reason is to be used in conjunction with our technical skills, prudential skills, and morality and to benefit human civilization.

Already because of the wildfires in Los Angeles County, people are not concluding that no one should live in Los Angelos County because of the Santa Ana winds, but that they need instead to build their houses differently out of material that will not easily ignite because of fire. This kind of reflection is a positive use of reason to address the causality of the disaster. Kant thought it would be helpful to build houses along the length of the river which indicates the direction of the earthquake.[39] That probably would not succeed in defeating an earthquake, but his use of reasoning is clear. We should use our reason to respond to natural disasters. We may not succeed in defeating natural disasters, but we should try.

Likewise, we should attempt to address climate change. We created climate stability in the first place and have produced a fantastic human civilization. However, now we have overshot the limits of the atmosphere, and so we need to adjust our actions and use our reason to find a way to restore climate stability by positively impacting our atmosphere, hydrosphere, geosphere and biosphere. We cannot expect each individual alone to discipline their animality (by changing their diet and car choices) as though that would be a sufficient response, instead the experts who have developed their technical skills need to think creatively about ways to mitigate carbon emissions. Entrepreneurs and inventors need to work out the possibilities of alternative energy. Farmers need to give us more options, like ostrich meat. Governments need to encourage the planting of more trees. Governments needs to legislate protection for whales. It is pretty clear that other factors such as the earth's declining obliquity and orbital eccentricity are going to eventually move us toward another ice age so we should factor that in our considerations as well.[40] Hugh Ross holds that "The opportunity for civilization as we know it appears to be extremely narrow." We have been able to develop a complex human civilization over the last 9,500 years because of climate stability. He predicts, however, that "We may be able to put [the inevitable onset of another glacial episode] off for a few more centuries, perhaps even for a little more than a millennium, but we cannot extend our present interglacial indefinitely."[41] We need to work together to limit carbon emissions, and stop fighting one another, and pointing fingers at 18th century philosophers.

7. Conclusion

I would like to conclude with a reflection on what Kant provides for our consideration. Many Kant scholars are disputing right now about whether Kant has had a negative impact on our environment because of his philosophy, and are disputing whether he can give us insight into how we can positively impact our environment. In these battles, there is a great emphasis on his moral philosophy and theoretical epistemology but little reflection on his theory of human nature and aesthetics. If my research is correct, Kant has a robust theory of human nature that provides us with an architecture of how reason can be used by human beings. Climate change challenges demand that we discipline our animality so that we eat and use goods and products that are atmosphere friendly. It also challenges us to develop our talents into skills and employ them to mitigate carbon emissions and replace our energy sources with environmentally friendly energy sources. Climate change that produces extreme weather events challenges us to revise our understanding of happiness and to respond to those affected with compassion and empathy. Finally, climate change and natural disasters remind us that our destiny is not to dwell on this earth in comfort, but to use our reason in moral ways to contribute to the possibility of human civilization. It is not wrong to seek sensible comfort, but we should not believe our full meaning resides in sensible comfort. We have the possibility of preserving human civilization for possibly a millennium by stabilizing our climate, and we should do all that we can to do that. Human civilization is worth it. We should question any philosophy that assumes that we can have human civilization without a stable climate, a diverse biosphere, a stable hydrosphere and an adequate geosphere. We need to continue to employ our skills to create a stable climate as we have done in the past. If I may use a metaphor, it is like household spending. When we are spending beyond our means we have to begin to cut costs and come up with a budget. In our energy consumption we are spending beyond the ability of our atmospheric means. We need to cut back and shift our energy consumption to means that do not overload the atmosphere with carbon emissions if we want to keep a stable climate. And we do want to keep a stable climate.

---

38 Kant, AA GMS IV, 395 in Kant, Practical Philosophy, 1996. Reason distorted original natural drives into greediness and voluptuousness, as well as into the 'bestial' vices of gluttony, lust, and savagery towards others. See also Kant, AA RGV VI, 27 in Kant, Religion and Rational Theology, 1996. When reason becomes a tool of sensible needs, it creates needs we may never be able to satisfy.

39 Kant, AA VUE I, 420 in Kant, 2012.

40 Ross (2020, chapter 20) argues: "If Earth's obliquity and orbital eccentricity were the only significant factors influencing our climate, the next ice age should have begun several thousand years ago. The human factor- the effect of our activity and industry-has played the predominant role in delaying the onset of the next glacial episode. However, as pervious chapters explain, we've come to a tipping point. The rate of warming now exceeds, and threatens to greatly exceed, the rate of natural cooling processes." Ross (2020, chapter 6) asserts that "variation in the rotation axis tilt otherwise known as the obliquity cycle, has the most significant astronomical impact on Earth's climate." Obliquity is currently declining in the 41,040-year cycle and that means the climate is moving toward another ice age.

41 Hugh Ross (2020, Chapter 16).

8. References

Baumeister, David (2022). *Kant on the Human Animal: Anthropology, Ethics, Race*. Northwestern IL: Northwestern University Press.

Chakrabarty, Dipesh (2016). "Humanities in the Anthropocene: The Crisis of an Enduring Kantian Fable," *New Literary History*, 47, 377-397.

Chakrabarty, Dipesh (2009). "The Climate of History: Four Theses," *Critical Inquiry* 35, no. 2, 217-220.

Chignell, A. (2022). "Hopeful Pessimism: The Kantian Mind at the End of All Things," In: DuJardin, T., Eckel, M.D. (eds) *Faith, Hope, and Love. Boston Studies in Philosophy, Religion and Public Life,* vol 10. Springer, Cham. https://doi.org/10.1007/978-3-030-95062-0_9

Frierson, Patrick (2014). Kant, Individual Responsibility, and Climate Change, *Ethics, Policy & Environment*, 17:1, 35-38, DOI: 10.1080/21550085.2014.885163

Kant, Immanuel (2012). *The Cambridge Edition of the Works of Immanuel Kant: Natural Science*, edited by Eric Watkins, Cambridge: Cambridge University Press.

Kant, Immanuel (2007). *Anthropology from a pragmatic point of view (1798) in The Cambridge Edition of the Works of Immanuel Kant: Anthropology, History and Education,* edited by Günter Zöller and Robert B. Louden, Cambridge: Cambridge University Press.

Kant, Immanuel (2007). *Lectures on pedagogy (1802) in The Cambridge Edition of the Works of Immanuel Kant: Anthropology, History and Education,* edited by Günter Zöller and Robert B. Louden, Cambridge: Cambridge University Press.

Kant, Immanuel (2001). *The Cambridge Edition of the Works of Immanuel Kant: The Critique of the Power of Judgment,* edited and translated by Paul Guyer and Eric Matthews, Cambridge: Cambridge University Press.

Kant, Immanuel (1996), *The Cambridge Edition of the Works of Immanuel Kant: Religion and Rational Theology*, edited and translated by Allen W. Wood and George Di Giovanni, Cambridge: Cambridge University Press.

Kant, Immanuel (1996). "An Answer to the Question: What is Enlightenment?" in *The Cambridge Edition of the Works of Immanuel Kant: Practical Philosophy,* ed. by Mary Gregor, Cambridge: Cambridge University Press.

Korsgaard, Christine M (2018). *Fellow Creatures: Our Obligations to Other Animals,* Oxford University Press, Oxford.

Louden, Robert (2011). *Kant's Human Being: Essays on His Theory of Human Nature, Oxford University Press, Oxford.*

Nye, Bill (2016). *Unstoppable: Harnessing Science to Change the World*. St. Martin's Griffen, reprint edition.

Richerson, Peter; Robert Boyd, and Robert L. Bettinger. "Was Agriculture Impossible during the Pleistocene but Mandatory during the Holocene? A Climate Change Hypothesis," *American Antiquity 66, no. 3 (July 2001): 387-411.*

Ritchie, Hannah (2024). *Not the End of the World: How we Can Be the First Generation to Build a Sustainable Planet* (New York: Little, Brown Sparky).

Ross, Hugh (2020). *Weathering Climate Change: A Fresh Approach, Reasons to Believe Press.*

Salgueiro, Inês (2024). "Kantian Animal Ethics, Deep Dignity, and the Moral Game," *Environmental Philosophy* 21:1, pp. 5-29.

Svoboda, Toby (2023). "A Kantian Approach to Moral Considerability of Non-human Nature," *Journal of Agricultural and Environmental Ethics, 36 essay 22.* https://doi.org/10.1007/s10806-023-09918-6

Wilson, Holly L (2023) "Kant, Anthropocentricism, and Animal Welfare," *Con-Textos Kantianos, 18, 77-88.*

Wilson, Holly L (2016)*. "The Green Kant: Kant's Treatment of Animals" in Environmental Ethics: Readings in Theory and Application, 7*th edition, pp. 87-95, edited by Louis P. Pojman, Paul Pojman, Katie McShane. United States: Thomson Wadsworth Publ.

Wilson, Holly L (2006). *Kant's Pragmatic Anthropology: The Origin, Meaning, and Critical Significance, State University of New York Press.*

Varden, Helga (2022). "Kant and the Environment," *Studi Kantiani* (35, pp. 27-48).

Vereb, Zachary (2025). Kant and Environmental Philosophy. Forthcoming from Cambridge University Press.

Vereb, Zachary (2023). "A Kantian Philosophy of Hope for the 21st Century?"
Studi Kantiani (XXXVI), 111-126.

Vereb, Zachary (2022), "Sustaining the Individual in the Collective: A Kantian Perspective for a Sustainable World," *Kantian Review 27*, 405-420. doi:10.1017/S1369415422000176