Descartes and His (Ecological and Animal Ethicist) Critics: A Defense of the Epistemological Movement in the *Meditations on First Philosophy*.

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Introduction

Ecological and animal ethicists have known two major bogeymen in the last 50 years of scholarship: The first is the Abrahamic God, who created the world *ex nihilo* and erected a moral hierarchy with human males at the very top and the rest of the creation (including women, animals, plants, and land) filling in the gaps below. In his seminal piece, "The Historical Roots of Our Ecologic Crisis" (1967), Lynn White, Jr., (in)famously implicates Christianity in forming the foundations of the ideological conditions that drive humanity's unsustainable consumption of natural resources and unjust treatment of non-human life.[1]

But if the Biblical God is the number-one enemy of ecological and animal ethicists, modern French philosopher René Descartes follows in a close second place, whether it be for his picture of the hyper-rational subject, his (epistemological) distinction between the knowing subject and object of knowledge, his doctrine of substance dualism, his supposedly reductionist mechanistic physics, or that after his death his work was used to justify the cruel practice of vivisection on non-human vertebrates. For ecological and animal ethicists, it is often taken to be a truism that Descartes' conclusions and method of philosophy are not only false but also problematic for the moral tasks at hand. The presumption that Cartesian (and more broadly, modern) philosophy somehow contributes to, or is at least complicit in, any number of massive-scale moral wrongs, from the oppression of women by patriarchal power-structures to the testing of cosmetics on animals to the clear-cutting of the Amazon rainforest, is so

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[1] Lynn White, Jr., "The Historical Roots of Our Ecologic Crisis," *Science* 155 (1967): 1203-7.

pervasive that few thinkers operating within the ecological and animal ethics discourse bother questioning it. Certainly ecological and animal ethicists historically have provided explicit (and oftentimes extensive) rationales for *why* Cartesian-style thinking has been promulgated by the moral wrongdoers in power — it is not as if Descartes' name and works are never even discussed. But what is the case is that there is little disagreement about the value of Descartes' achievements — that is, most agree that his were barely achievements at all, at least on today's standards. I aim to complicate the consensus.

Before getting exactly to what I *do* aim to accomplish in this project, I should draw attention to what I do *not* aim to accomplish. I will *not* be arguing that all of Descartes' conclusions in the Sixth Meditation of the *Meditations on First Philosophy* (1641), in the Fifth and Sixth parts of the *Discourse on the Method* (1637), and in other important sources are either helpful for the ecological and animal ethical project or true on their own terms. In these portions of his work, Descartes drifts from the path he lays out in the beginning of each, and he fallaciously attempts to draw a clear ontological distinction between minds and bodies, or between *res cogitans* and *res extensa*, which contributes to several other problematic doctrines. While Descartes's system is more complex than his critics admit, I believe that ecological and animal ethicists are often correct in the way they discount several of Descartes' principles, especially substance dualism. Thus it should be clear that I do not hope to be Descartes's white knight — neither the accuracy of the author's thoughts, the biases present in his corpus, nor the moral rectitude of the man concern me; I care little whether he historically 'had it right' or whether he was a 'bad guy' or 'good guy' by the standards of environmentalists, feminists, animal rights advocates, and other activists — whether he grimaced or

maniacally laughed when performing vivisections during his schooling. I fully admit that his perspective was limited and his corpus flawed.

Instead, in the present work I aim to problematize the way that contemporary ecological and animal ethicists have dismissed the totality of Descartes's project, beginning with the skeptical method (doubt) and proceeding through an argument for God's existence as a non-deceiver, based solely on how they judge the morality of its conclusions. The epistemological movement in which Descartes engages throughout the first five Meditations, I will argue, does not entail the conclusions on which ethicist interpreters have focused the bulk of their criticism, and thus should not be so quickly jettisoned from contemporary ethical discourse alongside those conclusions. In fact, I contend that the project laid out in Descartes's *Meditations* — up until the Sixth — has the potential to inform several key issues in contemporary ethics, most notably the problem of intrinsic value in ecological ethics and the problem of animal minds in animal ethics. In some cases — in particular the case of environmental philosopher J. Baird Callicott — a Cartesian method of philosophizing could actually be the key move that ties an ecological ethic convincingly together. Ecological and animal ethicists have mistakenly turned over the rock, looked at it, and put it back down, not finding what they deemed fruitful. They should pick it back up and look again.

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The present work will be divided into three sections. In the first I will showcase the ways in which ecological and animal ethicists have criticized Descartes. I aim to

demonstrate not only the pervasiveness of such critiques and why his critics claim such criticism is important but also that these readings contain a common logic. I will give particular attention to the work of Callicott, one of the most vocal critics of Cartesianism. Here I attempt to explain Callicott's motivations for developing an ecological ethic grounded on a theory of intrinsic value for nature as well as why Callicott believes such a theory is incommensurable with Cartesianism.

In the second section, I will provide a reading of the first five Meditations, giving special attention to Descartes' skeptical method, his argument for the existence of the *cogito* (the 'I think' or thinking 'I'), and his arguments for the existence of a perfect God. I will spend a significant portion of this section of the present work discussing the Cartesian epistemology of *clear and distinct perception* in order to ground a description of a structure implicit in Descartes' text, a supposed moment of circular reasoning referred to in the literature as "The Cartesian Circle."[2] Rather than dismiss Descartes' epistemology because of its alleged circularity, I read the Cartesian Circle as an important indicator that the *Meditations* does not make a linear argument for the *cogito* first, then God, and then other existing things. Instead, the Cartesian meditator, in doubt, comes to knowledge of her own and God's existence in paradoxical simultaneity — knowledge of either grounds the other, and knowledge of both justifies the belief that other (extended, or, material), individual things exist.

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[2] The charge that Descartes's argument in the *Meditations* (for an epistemology based on clear and distinct perceptions) is circular draws attention to two claims: that the *cogito* must come to certain knowledge of its own existence before knowing that God exists, and that the *cogito* must come to certain knowledge of God's goodness and existence before being certain of anything.

In the third section of the present work, I turn back to the critiques of Descartes established in the first section of the paper, alongside readings of passages from Descartes' *Meditations*, letters, and other works that corroborate the concerns of his ecological and animal ethicist critics. Here I explicate exactly what, in Cartesian terms, his critics were focusing on, and why they were right to do so. But furthermore, I hope to argue that the project Descartes outlines in the first five Meditations makes a case against his own (problematic) conclusions in the Sixth Meditation and in other works. In this way, I hope to disentangle the Cartesian epistemological turn of the first five Meditations from the doctrines often cited by Descartes' ecological and animal ethicist critics. In this section I also argue that the epistemological insights of the first five Meditations, on my reading, could actually contribute to ecological and animal ethics projects, specifically those that aim to solve the problems of animal minds and intrinsic value in nature.

§I. Ecological and animal ethicists on Descartes— a literature survey

In this first section of the present work, I hope to accomplish several tasks, the most important of which will be to set the stage for my reader. Who are these ecological and animal ethicist critics of Descartes? What reasons do they give for their criticisms? What are their motivations? What is at stake in the soundness of their critiques? In other words, I hope to unpack the common logic of the Descartes' critics. This is not to say that all of Descartes' critics occupy the same philosophical platform or that they have the same agenda — far from it. Even when I refer to ecological and animal ethicists together, I am amalgamating two distinct lines of discourse that historically have been at odds with one another.[3] However, what I will suggest in this section of the present work is that several common threads of critique can be found in the literature on both sides of nearly every fence — just to name two such 'fences,' critiques of Descartes pervade the work of both ecological and animal ethicists as well as both secular and religious ethicists. Regardless of whatever other reasons these thinkers have to disagree with one another, they can certainly agree that their common foe is Descartes, and that Cartesians, or at least well-meaning individuals whose minds are unconsciously afflicted with Cartesianism, are somehow holding humanity back, preventing it from meeting its moral duty to non-human nature.

I will begin at the beginning, with Lynn White, Jr., whose brief but forceful article "The Historical Roots of Our Ecologic Crisis" sets the tone for several decades of anti-

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[3] See, e.g., J. Baird Callicott, "Animal Liberation: A Triangular Affair" in *In Defense of the Land Ethic: Essays in Environmental Philosophy* (New York City: SUNY, 1989): 15-38 and Callicott, "Review of Tom Regan, *The Case for Animal Rights*" in *In Defense of the Land Ethic*: 39-47.

Cartesian scholarship. What I hope to expose from my consideration of White's piece is that it presupposes a problematic form of historical-causal logic, a logic that I will argue is echoed in the work of ecological and animal ethicists in their criticism of Descartes. Though White's target is Christianity and not explicitly Descartes, the commonalities between White's accusations and those waged at Descartes will become obvious when I transition to discuss the various charges leveled at Cartesian philosophy by later ecological and animal ethicists. One of my goals in the part of this section where I present these (post-White-ian) instances of anti-Cartesian scholarship is to evince the sheer volume of such literature, but I also invoke the work of such figures (including Rosemary Radford Ruether, Mary Midgley, Val Plumwood, Michael S. Northcott, and Wayne Ouderkirk) in order to show that they consistently display an important oversight in the way they read Descartes's work, namely that they read the content of the first five Meditations through the lens of Descartes' conclusions in the Sixth (and of the contents of his correspondence). Near the end of the first section of the present work, I turn my focus to Callicott, one of the most outspoken voices proclaiming the limits of Modernism and especially of Cartesian philosophy. Callicott, a renowned ecological ethicist, is also one of the most prominent proponents of developing a theory of intrinsic value for nature. While I will articulate this matter in more detail later, what is important for the time being is that Callicott aims to unite theory and practice in ecological ethics in his theory of intrinsic value; his goal is to establish a unified metaphysical, epistemological, and ethical system that explains the value of nature while simultaneously motivating a proper response to it. In this way, Callicott shares some philosophical ideals with the modern European philosophers who also hoped to provide a systematic way of understanding the

totality of reality, including Descartes, making his critique of Descartes especially interesting. As I noted in my introduction, it is ironically Callicott who I believe could most benefit from the epistemological movement that Descartes presents in the first five Meditations, though I will not return to this issue in full until the conclusion of the third section of the present work.

"In the beginning…"

Why does humanity unrelentingly consume natural resources and treat the environment unjustly? Historian Lynn White, Jr., provides us with an answer: In contrast to Greco-Roman mythological cosmogonies, in the Christian religion

> By gradual stages a loving and all-powerful God had created light and darkness, the heavenly bodies, the earth and all its plants, animals, birds, and fishes. Finally, God had created Adam and, as an afterthought, Eve to keep man from being lonely. Man named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man's benefit and rule: no item in the physical creation had any purpose save to serve man's purposes. And, although man's body is made of clay, he is not simply part of nature: he is made in God's image.
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> Especially in its Western form, Christianity is the most anthropocentric religion the world has seen.[4]

[4] Lynn White, Jr., "The Historical Roots of Our Ecologic Crisis," p. 1205.

For White, the obvious culprits of humanity's problematic relationship with nature are the creation stories from Genesis 1:1 to 2:25. White interprets God to establish a moral hierarchy, in which it is acceptable for humans to use other created entities as means to their own ends. According to White, the upshot is not only that the Bible teaches human beings that they may do whatever they wish with animals, plants, land, etc., but also that they, as well as God, are somehow exempt from being classified as natural ("although man's body is made of clay, he is simply not part of nature: he is made in God's image"). Humans see themselves as both distinct from nature (a human-nature ontological dualism) and morally superior to it (a moral dualism).[5] In the first sentence of the following paragraph, White deems the intertwined beliefs of ontological dualism and moral dualism anthropocentrism and associates both with western forms of Christianity.

Yet this still does not completely answer the relevant questions: Why does humanity unrelentingly consume nature? So what if (one section of) the Bible argues for ontological and moral dualisms? Why would it matter? We are still missing two steps to White's argument. The first missing step involves an argument that the (Christian, according to White) cosmogony stories in Genesis are somehow unconsciously accepted by the bulk of the human population of Earth, or at least the bulk of Earth's population that contributes to the destruction of the environment and unfair treatment of non-human life forms. White supports this point with evidence that humanity has been indoctrinated by dangerous aspects of Christian theology through the promulgation of science and technology. He writes, "From the 13th century onward, up to and including Leibnitz and

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[5] As I will show in part two of this section of the present work, ecofeminist and philosopher Val Plumwood echoes White's sentiment, but stresses attributions of the interconnected dualisms primarily to Descartes.

Newton, every major scientist, in effect, explained his motivations in religious terms. Indeed, if Galileo had not been so expert an amateur theologian he would have got into far less trouble… And Newton seems to have regarded himself more as a theologian than as a scientist."[6] White's point is that the application of science through technology that contributes to practices like massive-scale fishing, farming and clear-cutting of forests; is made possible by the work of figures such as Leibniz, Newton, and Galileo (he does not mention Descartes, but given Descartes's influence on Leibniz and Newton, one would imagine White would include Descartes in this cluster of dangerous influences); who themselves were ideologically influenced by the intertwined dualisms that mark mainstream western Christianity. In short, White claims to be able to see the influence of Christianity on human practices by way of Christianity's influence on individuals who themselves influenced the technocratic state that marks Western human culture today.

For a moment, let us accept White's argument thus far. (A) Christianity involves a belief structure that entails or at least encourages an attitude of anthropocentrism, and (B) we can see that Christianity is influential today because even secular science is grounded on Christian principles. There is another missing step in White's argument. White needs to connect a belief structure to the physical manifestations White associates with that belief structure. In other words, White needs an argument that belief in general, and *a fortiori* Christian belief, contributes to the way that humans interact with non-human life, land formations, etc. It is clear White believes there is such a connection; he writes, "Human ecology is deeply conditioned by beliefs about our nature and destiny—

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[6] White, "The Historical Roots," p. 1206.

that is, by religion."[7] White thinks religion (associated primarily with "beliefs" and not as explicitly with rituals, practices, etc.) does "condition," or somehow cause or contribute to causing, the structure of interaction between human beings and their environment ("human ecology").

But how important is an individual's religious belief structure for determining the activities in which she engages? White writes,

> Our science and technology have grown out of Christian attitudes toward man's relation to nature which are almost universally held not only by Christians and neo-Christians but also by those who fondly regard themselves as post-Christians. Despite Copernicus, all the cosmos rotates around our little globe. Despite Darwin, we are not, in our hearts, part of the natural process.[8]

Regardless of whether we consider ourselves secular scientists or religious individuals, most people, White asserts, still maintain the Christian intertwined dualisms at heart. And because of these believes, we humans believe "We are superior to nature, [we are] contemptuous of it, willing to use it for our slightest whim."[9] It is the following sentence, however, that is most provocative: "To a Christian a tree can be no more than a physical fact. The whole concept of the sacred grove is alien to Christianity and to the ethos of the West."[10] If you are a Christian, and by "Christian" I take White to be referring to someone who abides by some interpretation of Genesis similar to White's, then you

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[7] White, "The Historical Roots," p. 1205.
[8] White, "The Historical Roots," p. 1206.
[9] White, "The Historical Roots," ibid.
[10] White, "The Historical Roots," ibid.

cannot act as if a tree is anything "more than a physical fact."; for no citizen of the "West" can there be the notion of a space or entity in non-human nature that can be loved or respected — for a Christian the idea of a "sacred grove" is inconceivable. White's language stresses that to hold a pair of beliefs concerning human-nature dualism and a moral hierarchy that favors humanity *precludes* treating non-human entities respectfully ("a tree *can be no more* than a physical fact").

It is important to see what is behind White's claim. On one level, White's point appears trivial. If I believe that trees in general are unworthy of my respect, than obviously I cannot believe that the (particular) tree in front of me is worthy of my respect. However, we should remember that White is discussing the historical roots of the *human involvement in* the "ecologic crisis." White has in mind certain practices that destroy or damage the environment — for example, chopping trees indiscriminately. He even introduces the problem with a discussion of specific agricultural practices.[11] White's logic thus seems closer to something like, 'If I believe trees are unworthy of respect, I will not intentionally engage in any action that combats the indiscriminant chopping of trees (or some similar action that contributes to the "ecologic crisis").' If we turn to the end of White's piece, we see that this logic is reaffirmed when he praises Francis of Assisi: "The key to an understanding of Francis is his belief in the virtue of humility—not merely for the individual but for man as a species. Francis tried to depose man from his monarchy over creation and set up a democracy of all God's creatures."[12] Francis represents one possible resource for turning human behavior around and

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[11] White, "The Historical Roots," p. 1205
[12] White, "The Historical Roots," p. 1206.

beginning to heal the wounds the Earth has suffered by human hands. Unlike Buddhism and other non-Abrahamic religious traditions, White believes Francis's unique brand of Christianity is palatable enough to technocratic westerners while still avoiding the intertwined dualisms of the Genesis creation myths. Why? Because Francis's "view of nature and of man rested on a unique sort of pan-psychism of all things animate and inanimate…," or, in other words, because Francis held the belief that all entities have subjective, conscious experience.[13]

At worst, implicit in White's argument is a grossly simplistic monocausal philosophy of action, one that takes beliefs about metaphysics and cosmology to condition one's morally-relevant actions (or at least the intentions behind them) immediately. In the case of Francis, belief in a specific metaphysic (in this case a metaphysic of consciousness) is held to influence immediately the ways in which one interacts with her environment; if only we were all Franciscans, meaning that we all adopt a certain sort of pan-psychist philosophy of mind, then we would not be destroying the planet. What is more likely, however, is that White's understanding of how beliefs and decisions contribute to actions, as reflected in this piece, is simply undeveloped. Under this interpretation, White does not aim to present a worked-out justification for how Christian beliefs contribute to the performance of specific human practices, but rather he aims to present an idea about how certain ideas permeate the human social consciousness and have widespread influence on the structures that develop in society.[14]

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[13] White, "The Historical Roots," p. 1207.

[14] One work that exemplifies a methodology much like White's is Max Weber's *The Protestant Ethic and the Spirit of Capitalism* (1920). Weber's approach is quite similar to White's in that both draw causal

Regardless of whether White has an incoherent or simply undeveloped understanding of *how* beliefs (ideas, thoughts) are causally connected to social practices, what is clear is that White believes there *is* some causal connection between the two: beliefs that contingently developed in the past influence certain behaviors.[15] Insomuch as White makes such a claim, the logic of his piece serves as the prototype for the anti-Cartesian arguments that I present in the following part of this section. I will only explicitly return to connect White and the Descartes' critics afterwards.

Descartes' critics, many and diverse

Critiques of Descartes are so pervasive among ecological and animal ethicists that the best approach toward summarizing and explicating them is probably simply to dive in. Take feminist theologian Rosemary Radford Ruether:

> Descartes's method yields a radical version of the dualism between mind and matter. The thinking mind is transcendent and stands over against matter, which by its nature is mindless and soulless, divisible into

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connections between theological tenets (ideas) and large-scale social structures and practices. For White and Weber, systems of belief have profound influence on the sorts of behaviors people perform, in contradistinction to certain Marxist analyses that privilege strictly "material" concerns like hunger, exhaustion, or economic need to explain the forces the motivate certain institutions and social practices. See Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, in The Protestant Ethic and Spirit of Capitalism *with Other Writings on the Rise of the West*, 4th ed. Trans. by Stephen Kalberg. (New York City: Oxford University Press, 2009): 1-159.

[15] Lately, environmental ethicists such as Willis Jenkins have challenged the soundness of White's claim based on its presumption that cosmological (or metaphysical) beliefs exert ready influence on social practices. In his piece "After Lynn White: Religious Ethics and Environmental Problems," Jenkins proposes a dialogical model of understanding religious cosmology and its relation to environmentally-relevant social practices that challenges the unidirectional "worldview"-to-practice model of causality implicit in White's seminal paper. Though I do not believe Jenkins's dialogic approach to understanding how cosmology (or metaphysics) and practice (ought to) relate is sufficient, it is worth noting that not all ecological and animal ethicists are decided on this matter. Jenkins' argument is worthy of an analysis, but there is no room here to furnish one. See Willis Jenkins, "After Lynn White: Religious Ethics and Environmental Problems," *Journal of Religious Ethics* 37 (2009): 283-309, p. 284.

> smaller and smaller elements, moving mechanically according to laws of causality. In Descartes we see the pervasive metaphor of the "machine" for all physical nature, even the human body. The result is a radical denial that material reality itself is capable of producing reason or any innate animation.
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> Descartes reduced animals to "automata," which appear to be lifelike but are actually moved by mechanical power, like clocks. This view also was used to justify vivisectional experimentation on animals, by assuring the experimenters that the cries and writhings of animals were mere mechanical reflexes. Since animals lack "soul," they cannot possibly "feel." In effect, Descartes severed the continuum between organic body, life, sensibility, and thought. The continuum was split into thought, found in God and the human mind, and dead matter in motion.[16]

By the time of Newton, the Cartesian mechanistic understanding of physics reached a point such that

> All innate spiritual elements having been eliminated from nature, human spirit need no longer interact with nature as a fellow being, but could see itself, like the clock-maker God, as transcendent to it, knowing it and ruling it from outside. Soon this presupposition of God could itself be discarded, leaving the scientists, together with the rulers of state and

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[16] Rosemary Radford Ruether, *Gaia and God: An Ecofeminist Theology of Earth Healing* (New York City: Harper Collins, 1992), p. 196.

> industry, in charge of passive matter, infinitely reconstructible to serve their interests.[17]

These two pages of Ruether's book contain almost every important critique that ecological and animal ethicists wage at Descartes. The first paragraph I have quoted above mentions a mind-body (or substance) dualism, a dualism between mental and corporeal substances. Immediately after mentioning substance dualism, Ruther goes on to describe Descartes's mechanistic physical theory, which both implies fatalism (a spiritually dead world in which matter cannot produce "innate animation") and "reduces animals" to mere machines. Furthermore, she mentions that the Cartesian substance dualism inappropriately intervenes in a "continuum" or monism, "between organic body, life, sensibility, and thought." All of these qualities of life were once seen as connected, as they should be according to Ruether, but Descartes's artificial distinction between two substances severs this important interrelation, creating a wound in the once-healthy relationship between humanity and non-human nature. Ruether concludes her reading of Descartes by stressing that the Cartesian picture of mechanistic physics (elaborated and developed by Newton in the classical model of physics) allowed (allows) humans to stand oppressively over the rest of the Creation, and eventually resulted in an atheistic, idolatrous self-deification.

In sum, Ruether charges Descartes with fatalism, inappropriately reducing animal minds and providing a false justification (an excuse) to treat animals cruelly, separating emotions and sense ("sensibility") from rationality and privileging the latter, providing a

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[17] Ruether, *Gaia and God*, p. 197.

false justification for atheism, denying the divinity or spontaneity of matter and life, and justifying oppressive authoritarian (and capitalistic) power structures. Worthy of note is that Ruether seems to anchor her myriad criticisms of Descartes on his principle of substance dualism (a conclusion of the final Meditation), strongly echoing White's critique of the Abrahamic cosmogony, which highlighted the dualism between humans and non-human nature. This is an important pattern among ecological and animal ethicists, as we can see from the following excerpts, all of whom implicate Cartesian (or Cartesian-inspired) metaphysical dualism for a host of moral and philosophical problems, including humanity's inappropriate treatment of non-human nature and humanity's failure to see itself as closely related to non-human animals.

Concerning this differentia (the one that marks off humans from non-human animals), philosopher and animal ethicist Mary Midgley writes, "The very great influence of one metaphysical scheme has… long made dropping the idea of the differentia impossible. This is Descartes' view of mind and body as radically divided in such a way that animals other than men cannot possibly have minds."[18] Again, Descartes's principle of substance dualism is implicated, but in this case we have a philosopher writing against using the capacity for rationality to distinguish between humans and non-human animals. Midgley continues: "Since this scheme places everything of value in the mind, it makes the human differentia a necessary piece of apparatus. And it has widely survived his view of the mind or soul as immortal because it has a great appeal for mechanists." What is the upshot? "Descartes therefore regarded animals as automata, operating without

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[18] Mary Midgley, *Beast and Man: The Roots of Human Nature* (New York City: Routledge, 1978), p. 209.

consciousness. They did not, he said, really *act* themselves at all; they were acted upon…. For this view he gave two reasons: their failure to talk, and the unevenness of their apparently intelligent performance."[19] The more interesting (and less immediately ridiculous) of the two criteria Descartes provides to judge animals non-rational (and we will examine it in greater detail in the third section of the present work) is that animals cannot speak in the way humans can — they cannot invent new locutions, new meanings, or play with words. What is Midgley's response to this argument by Descartes?

> [W]hat requires *a priori* that only humans should talk? The answer is not linguistics or human dignity, but simply a piece of bad metaphysics, namely, Descartes' dualistic view that the world is divided sharply, without remainder, into lifeless objects on the one hand and human, fully rational, subjects on the other. This position cannot in any case be reconciled with evolution. For if it were true, there would have to have been a quite advanced point in animal evolution when parents who were merely unconscious objects suddenly had a child which was a fully conscious subject. And that situation makes no sense.[20]

Again, we see that Descartes's substance dualism (a doctrine argued for at the conclusion of the *Meditations*) is to blame for his assertion that the capacity to speak is a viable litmus test for rationality, and thus having a soul. But something else interesting is happening in this passage, to which I will draw attention now as an aside (we will return to it in the third section of the present work), namely that the Darwinian theory of

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[19] Midgley, *Beast and Man*, p. 210.
[20] Midgley, *Beast and Man*, p. 217.

evolution is used to bolster the argument against Descartes. This point is interesting in that evolutionary theory, a theory derived inductively from observations about the Earth, is being used to challenge a claim derived by Descartes supposedly *a priori*. What Midgley is doing is akin to the frequent (and disturbing) use of quantum theory by scholars to argue all kinds of strange things on a metaphysical level (see Callicott below). A scientific theory is not the same as a metaphysical principle — it is a tentative generalization determined *a posteriori within the framework* of a certain metaphysic and epistemology. One may certainly argue that metaphysics and epistemology are usually irrelevant, or that few *a priori* arguments from abstract principles aid human beings in their daily lives, but such claims do not provide philosophers with the ability to argue against supposedly *a priori* claims using scientific principles.

In her *Feminism and the Mastery of Nature*, ecofeminist Val Plumwood echoes both Ruether and Midgley, when she lists the following "set of contrasting pairs," which comprise the "key elements of the dualistic structure in western thought":

culture	/	nature
reason	/	nature
male	/	female
mind	/	body (nature)
master	/	slave
reason	/	matter (physicality)
rationality	/	animality (nature)
reason	/	emotion (nature)
mind, spirit	/	nature
freedom	/	necessity (nature)
universal	/	particular
human	/	nature (non-human)
civilised	/	primitive (nature)
production	/	reproduction (nature)
public	/	private

subject / object
self / other[21]

Plumwood stresses that dualisms form interconnected networks, bound together with what she refers to as "linking postulates." "[F]or Descartes…," she writes, it is between the "mind/body (physicality), subject/object, human/nature and human/animal" dualisms that linking postulates are either implicit or explicitly argued for.[22] In forming networks of dualisms, an oppressive power structure is allowed to form. In this way, Plumwood argues, dualisms are never morally neutral, but always carry with them an unjust moral hierarchy. The "mind/body" and "subject/object" dualisms are thus supposed to draw along with them the dangerous dualisms about which ecological and animal ethicists are most interested in: the "human/nature" and "human/animal" dualisms.

To take a moment to emphasize the near-universal agreement of ecological and animal ethicists, let us look briefly at several more critiques. Christian environmental ethicist Michael S. Northcott claims, "It is this mechanistic Cartesian approach to the natural world which is in part responsible for the abuses of nature which characterize modern civilization."[23] Again, Northcott *begins* his description of Cartesian philosophy by mentioning a "mechanistic… approach," something not argued for until late in the *Meditations*. Opposed to this problematic Cartesian model is the "more holistic, interactive and systemic scientific paradigms of life and the cosmos" which have "begun to emerge from scientific observations, such as Einstein's theory of relativity, quantum

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[21] Val Plumwood, *Feminism and the Mastery of Nature* (New York City: Routledge, 1993), p. 43.
[22] Plumwood, *Feminism and the Mastery of Nature*, p. 45.
[23] Michael S. Northcott, *The Environment and Christian Ethics* (Cambridge: Cambridge University Press, 1996), p. 60.

mechanics and the emphasis on the interactivity of ecosystems in early ecology which finds its supreme manifestation in James Lovelock's Gaia hypothesis…."[24]

In the environmental ethics literature, substance (or any ontological or metaphysical) dualism is even frequently used as a *reductio ad absurdum*. In several different articles, Callicott labels Christian theologian and environmental philosopher Holmes Rolston, III, and others Cartesian-style dualists in an attempt to neutralize their moral systems.[25] Or, for a more subtle but telling case, take Eric Katz's *Nature as Subject* (1997). In this book, Katz attempts to complicate the practice of environmental restoration, traditionally taken to be morally praiseworthy, based on the premise that human interactions in the environment further mark damaged habitats with the trace of human (and thus non-natural) intention. (Environmental philosopher Robert Elliot makes a similar argument in his 1997 book *Faking Nature*.) Philosopher and ethicist Wayne Ouderkirk has critiqued Katz's model — why? Because Katz argues for an "ontological dualism" in his work: "The central, major problem is Katz's dualism," writes Ouderkirk, "and I think it ultimately undoes his whole theory, since it is so intimately connected with the other parts…."[26] Of course Katz's "dualism" is "intimately connected" with the rest of his argument — (like Elliot's *Faking Nature*) it aims to claim that the natural state of

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[24] Northcott, *The Environment and Christian Ethics*, p. 61.
[25] See, e.g., Callicott, "Rolston on Intrinsic Value: A Deconstruction," in *Beyond the Land Ethic: More Essays in Environmental Philosophy* (New York City: SUNY Press, 1999): 221-37; Callicott, "The Wilderness Idea Revisited: The Sustainable Development Alternative" (1991), in *The Great New Wilderness Debate*, ed. by J. Baird Callicott and Michael P. Nelson (Athens, GA: University of Georgia Press, 1998): 337-66; and Callicott, "That Good Old-Time Wilderness Religion" (1991), in *The Great New Wilderness Debate*: 387-94. For a defense of Rolston from Callicott's assertions in "Rolston on Intrinsic Value," see Christopher J. Preston, "Epistemology and Intrinsic Values: Norton and Callicott's Critiques of Rolston," *Environmental Ethics* 20 (1998): 409-28. In this paper Preston acknowledges the force behind the accusation of dualism by defending Rolston from this charge as rigorously as possible.
[26] Wayne Ouderkirk, "Katz's Problematic Dualism and Its 'Seismic' Effects on His Theory," *Ethics and the Environment* 7 (2002): 124-37, p. 125.

the world (i.e., the world as if humans had not existed on it) is better than any world in which humans exert influence that goes beyond their natural tendencies, and that humans should intervene in non-human nature as little as possible. In order to make such a claim, Katz needs to draw a morally relevant distinction between humans and non-human nature, which he calls an "ontological distinction." Ouderkirk's problem with Katz's argument is that if such a distinction holds, then any and all human actions bear the mark of humanity, of intention — and an environmental ethic becomes impossible because no human action that affects non-human nature could be morally right.[27] Ouderkirk's point is well-taken (indeed, he points out one of the key problems of an ethic that maintains post-Sixth Meditation-Cartesian-style dualisms).[28] But what is more telling is what Ouderkirk says before he levels his charge of dualism at Katz:

> Katz's concern for, commitment to the natural world is obvious to any reader. He suffuses every essay with a determination to seek out clear and cogent philosophical rationales for its protection. More important perhaps is his obvious personal connection to that world. His references to Fire Island's deer and beaches, for example, amply demonstrate what the rest of his writings imply: that his theoretical efforts are more than armchair

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[27] Ouderkirk, "Katz's Problematic Dualism," p. 131.

[28] Ouderkirk does distinguish Katz's dualism from Descartes's, even if a thinker such as Plumwood would want to argue that Katz's humanity/non-human nature dualism and Descartes's mind/body dualism are intrinsically connected. On pages 128-9, Ouderkirk writes, "Unlike Descartes' extreme dualism, in which the separated entities are never successfully brought back together despite the obvious need to do so, Katz's dualism allows for the interaction of humans and nature. However, his dualism makes the interaction problematic for his environmental ethic." This is an especially bizarre claim given Descartes's commitment to interactionism, the principle that *res cogitans* can still sense and act on *res extensa* (which Descartes famously hypothesized occurred via the pineal gland). Nowhere does Descartes claim that human beings cannot "interact" with non-human nature.

> musings about a current philosophical issue. Katz's efforts are both professional and passionate.[29]

It is as if Ouderkirk feels he needs to say that Katz is a 'nice guy' before calling him a dualist, comparing him to Descartes, and claiming his entire system falls apart because of it — Katz avoids just sitting around and thinking (like Descartes did); he thinks for a good reason! He cares about real people and real concerns, and most of all the land and the non-human creatures that live on it (unlike Descartes)! For what other reason than concern that the charge of dualism would be taken as a personal assault would this paragraph have been included in an academic (and relatively short) article? Descartes and his philosophy are so reviled that, not only are they used as *reductiones ad absurdum*, but also in leveling such a charge, one needs to be extra clear she is not attempting to make a personal attack.

In the flood of Descartes-critics, do any environmental or animal ethicists defend him? In the entire (roughly) thirty-year history of the journal *Environmental Ethics*, only one piece explicitly aims to defend Descartes — philosopher Cecilia Wee's 2001 article "Cartesian Environmental Ethics." However, this article is the exception that proves the rule. It argues not that the Cartesian method of philosophizing is potentially useful for environmental ethics, but rather that Descartes himself, as can be seen from the content of some of his letters and other writings, "holds that it is a human good to subordinate one's interests to those of the larger universe" and that as a result, "he can be seen as a

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[29] Ouderkirk, "Katz's Problematic Dualism," p. 125.

forerunner of modern ecocentrism."[30] What Wee aims to do in this article is not defend the epistemological project begun at the start of the *Discourse* and *Meditations* but rather argue that Descartes was — not a Cartesian, a modern philosopher, but — an environmentalist. What is astounding about Wee's argument (and its inclusion in *Environmental Ethics*) is not that it goes against the grain of the journal and the ideology of environmental ethics discourse more generally, but that it reaffirms both while appearing to do otherwise. A defense of Descartes becomes a defense of the author of the *Meditations* and not a defense of the Cartesian method or the key moves made in the *Meditations* (e.g., doubt, the existence of the *cogito*, or the existence of God). We will eventually see exactly the opposite scenario in the case of Callicott, who outwardly critiques Descartes but espouses a theory of intrinsic value for nature that, as I will show in the third section of the present work, is dependent upon Cartesian epistemology.

The search for a theory of intrinsic value: J. Baird Callicott and relational epistemology

Prominent environmental philosopher J. Baird Callicott is author of numerous articles on the subject of ecological ethics. Callicott is perhaps best-known for his re-articulation and defense of nature writer Aldo Leopold's Land Ethic[31], though he is also well-known for his staunch refusal to draw any significant (morally relevant) distinction between non-human nature and humanity, wilderness and culture, or any other divided pair of concepts he takes to extend from Cartesian dualism.

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[30] Cecilia Wee, "Cartesian Environmental Ethics," *Environmental Ethics* 23 (2001): 275-86, p. 275.
[31] Aldo Leopold, *A Sand County Almanac* (Oxford: Oxford University Press, 1949).

Among the plethora of ecological and animal ethicists, Callicott will be the focus of our discussion in the present work not only because he is such a prominent critic of Descartes, but also because I believe his theory of intrinsic value requires a Cartesian epistemology in order to be coherent. However, I will conclude that argument at the end of the third section of the present work. For now, I will simply explicate Callicott's ethical system and its corresponding epistemology.

In short, Callicott's version of the Land Ethic is a consequentialist moral system, derived from a Humean conception of moral sentiment but heavily informed by evolutionary and ecological science, which aims at (as Callicott closely paraphrases Leopold's original formulation) maintaining "the integrity, stability, and beauty of the biotic community."[32] The Land Ethic is intended to diverge from classical moral systems such as Kantianism and utilitarianism in that it implies a "shift in emphasis from part to whole—from individual to community—and, second, the shift in emphasis from human beings to nature, from anthropocentrism to ecocentrism."[33] For Callicott, human beings hold no special place in the system.[34] They are to divert all of their moral energies toward the good of the whole community, which is comprised of myriad interdependent relations among its parts, with only derivative duties to particular entities therein. In

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[32] Callicott, "Animal Liberation: A Triangular Affair," in *In Defense of the Land Ethic*: 15-38, p. 25. Callicott uses this formulation to describe the *telos* of the Land Ethic in many places throughout his corpus.
[33] Callicott, "Introduction: The Real Work," in *In Defense of the Land Ethic*: 1-12.
[34] A limited exception to this point can be found in "The Wilderness Idea Revisited," p. 351. Here, Callicott notes that "because the works of man are largely cultural they are capable of being rapidly reformed. Other animals cannot change what they do in and to their biotic communities, at least not very rapidly, and perhaps not ever consciously and deliberately." The implication is, even though "culture" is still, for Callicott, an "evolutionary phenomenon," and even though it does not give humans any sort of privileged moral status, because culture implies deliberation and rapid change (on an evolutionary scale, at least), that humans have culture allows Callicott to place moral demands on humans and not non-human entities.

Callicott's earlier work, he argues that the singular community toward which all actions should benefit is the ecological community of Earth's entire biosphere, which includes human and non-human life forms united by common evolutionary ancestors, in addition to the "land," or, the non-living structures that facilitate these ecological and evolutionary relationships (e.g., mountain ranges, prairies, oceans, the Earth's moon and its tidal influence, etc.). In his later work, Callicott pulls back somewhat. While he still stresses the imperative to maintain "the integrity" of Earth's overarching ecological community, he makes clear that smaller sub-communities are possible, which occasionally compete for moral agents' attention.[35] Regardless, what is important to stress is that Callicott derives a singular ethical theory from (i) the (evolved) instinctive sentiments of species and (ii) the mutual (ecological) dependence of all life forms (and non-living land forms) upon one another that provides the conditions for their survival.

For Callicott, the Holy Grail of ecological ethics is a theory of intrinsic value that can apply to non-human nature. What is intrinsic value? Callicott writes,

> When something is valued instrumentally, it is valued by some valuing subject as a means only. On the other hand, if something has intrinsic value, it is also an end-in-itself. The normative function of finding objective intrinsic value in nature is to transform nature (or some elements

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[35] See, e.g. Callicott, "Introduction: Compass Points in Environmental Philosophy," in *Beyond the Land Ethic*: 1-24 and Callicott, "Moral Monism in Environmental Ethics Defended," in *Beyond the Land Ethic*: 171-83.

> or aspects of it) from the status of a mere means to the status of an end-in-itself.[36]

The distinction Callicott draws is between intrinsic and instrumental value. Instrumental value is value in relation to some moral subject who derives the value of the moral object through its capacity to serve as a "means" to some end. On the other hand, intrinsic value is the type of value something has when it is valued for its own sake, as an "end-in-itself." Callicott's interpretation of the environmental or ecological ethicist's goal is to "transform nature… from the status of a mere means to the status of an end-in-itself," which is synonymous with "finding… intrinsic value in nature." (Note here that Callicott mentions "objective" intrinsic value specifically. In the following paragraphs, his distinction between subjective and objective intrinsic value will be explored). What work does Callicott believe a theory of intrinsic value will do? "I try to prove… that intrinsic value 'exists,'" Callicott writes,

> in the sense that most everyone values him- or herself intrinsically, and that the concept of intrinsic value has a powerful function in ethics. An intrinsically valuable end cannot be appropriated as a mere means, without an overwhelming justification for doing so…. Now suppose that the intrinsic value of nature (or some elements or aspects of it) were to become as widely recognized as is the intrinsic value of human beings.

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[36] Callicott, "Introduction: Compass Points in Environmental Philosophy," in *Beyond the Land Ethic*, p. 17.

> Then the burden of proof would shift from those who would protect nature to those would exploit it only as means….[37]

There is ethical potency, Callicott thinks, in having a theory of intrinsic value for nature. If it were convincing, "the burden of proof would shift," presumably swinging the prevailing winds of environmental destruction in the opposite direction.[38] But what is perhaps more interesting about this passage is how Callicott aims to argue that "intrinsic value 'exists,'" through recourse to the idea of self-valuation. In other words, Callicott believes it is possible to anchor a theory of intrinsic value on the premise that desire for the good for oneself is a case of intrinsic valuation.

This sort of intrinsic value, however, Callicott distinguishes from *objective* intrinsic value. Callicott does not believe, from the standpoint of Modernism, that objective intrinsic value is possible. "Why? Because the radical Cartesian distinction between subjects and objects is fundamental to Modernism; and the value of something, from the Modern point of view, is determined by the intentional act of a Cartesian subject respecting an object—be that 'object' the subject him- or herself, another subject, or a Cartesian object proper (a physical object)."[39] According to Callicott, *objective* intrinsic value of nature is incompatible with Descartes's distinction between the thinking subject

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[37] Callicott, "Introduction: Compass Points…," ibid.

[38] On page 43 of Callicott's "Environmental Philosophy *Is* Environmental Activism: The Most Radical and Effective Kind," in *Beyond the Land Ethic*: 27-43, he writes, "In thinking, talking, and writing about environmental ethics, environmental philosophers already have their shoulders to the wheel, helping to reconfigure the prevailing cultural worldview and thus helping to push general practice in the direction of environmental responsibility." This recalls White's logic, that it is a moral task to change the general ideological trends in society. Here, it is clear that Callicott believes a theory of intrinsic value for nature will do for the task of ecological ethics what White thought Francis's humble pan-psychism would accomplish.

[39] Callicott, "Intrinsic Value in Nature: A Metaethical Analysis," in *Beyond the Land Ethic*: 239-61, p. 247.

and object of thought (articulated most clearly in the First and Second Meditations). This "radical Cartesian distinction" pervades the "Modern point of view," and prevents any act of valuation to be, as it were, object-centered, or, other-centered. This is because the object's value "is determined by the intentional act of a Cartesian subject." On the following page, he clarifies this point: "From the point of view of Modern philosophy, value is *conferred on* or *ascribed to* an 'object'…. In the Modern worldview, *value* is a verb first and a noun only derivatively."[40] In other words, according to Callicott, Modernism precludes any type of value other than subjective valu*ing*. Valuing is an activity that is always *performed* by a Cartesian subject (the 'I think' or *cogito*). What is the upshot?: "If there were no valuing subjects, nothing would be valuable."[41] According to Callicott, value can never "exist" independently of the (thinking human) valuer given the tenets of Modernism. (In the second section of the present work, we will see that, for the extent of the first two Meditations, Callicott may be correct.)

While Callicott believes this Modern, *subjective* theory of intrinsic value is functional, it is not completely satisfying to him. It does not, for instance, explain how we might judge the last person on Earth to be morally degenerate if she decided, right before she died, to indiscriminately chop down every redwood in California or nuke the Grand Canyon.[42] "A fully consistent contemporary environmental ethic… requires a theory of the noninstrumental value of nature which is neither subjectivist nor objectivist. It requires a wholly new axiology which does not rest, either explicitly or implicitly, upon

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[40] Callicott, "Intrinsic Value in Nature," p. 248.
[41] Callicott, "Intrinsic Value in Nature," ibid.
[42] See Richard Routley, "Is there a need for a new, an environmental ethic?" In *Proceedings of the 15th World Congress of Philosophy*, Vol. 1 (Sophia: Sophia Press, 1973): 205-10.

Descartes' obsolete bifurcation."[43] The "obsolete bifurcation" to which Callicott refers is the one "between object and subject, between the *res extensa* and the *res cogitans*."[44] For Callicott, the Modern, subjective theory of intrinsic value is shackled to substance dualism (the split between *res extensa* and *res cogitans*), which he equates with the subject-object distinction. For a "fully consistent" ethic, Callicott believes we must leave the Modern worldview behind. But toward what? What line of reasoning grants Callicott the "wholly new axiology" he seeks?

Callicott's answer lies in the empirical sciences, especially ecology and evolutionary biology, but also in quantum physics:

> Perhaps quantum theory may serve as a constructive paradigm for a value theory for an ecologically informed environmental ethic, as well as an occasion for the deconstruction of the classical Cartesian metaphysical paradigm…. To put this thought in the interrogative, if quantum theory negates the object-subject, fact-value dichotomies, what more positively might it imply for the ontology of natural values?[45]

Though Callicott is admittedly being speculative in this passage, taking recourse to quantum mechanics does not bode well for him, as it rarely does for philosophers or ethicists. Quantum physics is grounded on empirically derived generalizations (scientific theories) — it is not an explanatory principle for metaphysics, ontology, morality, or epistemology. Certainly discoveries made using the scientific method can inform (and

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[43] Callicott, "Intrinsic Value, Quantum Theory, and Environmental Ethics," in *In Defense of the Land Ethic*: 157-74, p. 166.
[44] Callicott, "Intrinsic Value, Quantum Theory, and Environmental Ethics," p. 165.
[45] Callicott, "Intrinsic Value, Quantum Theory, and Environmental Ethics," p. 166.

even be essential to) applied ethics and philosophy, but it is inappropriate to parrot science for the sake of grounding a metaphysic (or even for the "deconstruction" of another). For Callicott's sake, it would be good to find another source or justification for his "ontology of natural values." (Indeed, this is what I attempt to do in the conclusion of the third section of the present work, using Descartes's epistemology.) For the time being, though, we should unpack exactly what Callicott hopes to get out of his new axiology, epistemology, and ontology. What does he imagine these constructs will look like? Does Callicott continue to ground his project on quantum physics?

He does: "Descartes's radical distinction between the subjective and objective domains (or, in his own terminology, the *res cogitans* and the *res extensa*) has, furthermore, proved untenable in contemporary physics with extremely profound and portentous consequences."[46] Again we see Callicott (problematically) invoking empirically generated principles to critique Cartesian dualism. In this passage he calls on the Copenhagen Interpretation of quantum physics and the Heisenberg Uncertainty Principle: "To observe, to know, the ultimate 'realities'… therefore, necessarily, changes those realities. In the subatomic realm the physical act of knowing, thus, in a sense, partially constitutes the object of knowledge. At this level, the objective world becomes inseparably entangled with the subjective…."[47] Callicott wants to surpass the Modern worldview and its (according to Callicott) corresponding subjective theory of intrinsic value through an appeal to the idea that observational epistemology is implicated in empirically observed phenomena. If the act of knowing contributes to what is known,

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[46] Callicott, "Just the Facts, Ma'am," in *Beyond the Land Ethic*: 79-97, p. 83.
[47] Callicott, "Just the Facts, Ma'am," ibid.

there is no reason, argues Callicott, to think that the object and subject are removed from one another (or *really distinct*[48]) as in the case of Cartesian substance dualism.

It is unclear, however, what subverting substance dualism accomplishes for Callicott's theory of intrinsic value for nature. He notes that a "postModern account of intrinsic value in nature is difficult to envision because we are still very much in a state of transition from Modernity to something else. What that something else may be, we cannot be sure…."[49] The only content Callicott seems willing to share about his "postModern account of intrinsic value" beyond the fact that it would involve "the perspective of the new Physics or… that of literary theory," and that it would entail "the decentering, the deconstruction of the Cartesian subject,"[50] is contained in the following passage:

> The Heisenberg uncertainty principle in the New Physics subverts the clean Cartesian cleavage between subjects and objects. On the one hand, the knowing subject is, so to speak, physicalized, objectified—since information can be registered only if energy is exchanged between object and knowing subject, and energy belongs on the object side of the Cartesian cleft. And, on the other hand, the known object is subjectivized—since a necessarily physical act of observation, in the subatomic domain, disturbs, changes the observed system. On this basis, I have… suggested a theory of intrinsic value in nature that makes value,

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[48] A *real distinction* is a technical term for Descartes. Any two substances are *really distinct* from one another.
[49] Callicott, "Intrinsic Value in Nature," p. 260.
[50] Callicott, "Intrinsic Value in Nature," ibid.

> like any other natural property, a potentiality to be actualized by a situated observer/valuer….[51]

Once again, Callicott is quick to draw a connection between the subject-object distinction, which is grounded in the Cartesian skeptical movement (at the beginning of the *Meditations*), and the distinction between mental and "physicalized" things in Descartes's doctrine of substance dualism (argued for in the Sixth Meditation). This is an issue I will discuss again in the following part of, and conclusion to, the first section of the present work. More importantly, though, what I hope to draw from this passage is some idea of what Callicott hopes his postModern epistemology will offer ethicists and why. How does it transcend the theory of subjective intrinsic value that, according to Callicott, even Descartes could have argued for? The answer is that a postModern Callicottian would take subject and object to be much more heavily intertwined than Descartes (on Callicott's reading of Descartes). The subject, in coming to know the value of an object, is herself "physicalized" and joined to that object. In the same way, the value of the object is only present *when it is recognized* by the subject. I call this type of epistemology *relational* because knowledge about some quality of an object is objective only in relation to a subject. The upshot of a theory of intrinsic value in the context of a relational epistemology is that no value exists completely outside of or external to the valuing subject except as a "potentiality." The object of value does not genuinely have value until it is "actualized" by some entity in connection with it, when that entity comes

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[51] Callicott, "Intrinsic Value in Nature," ibid. Note that in this passage, Callicott makes reference to his earlier article "Intrinsic Value, Quantum Theory, and Environmental Ethics," reprinted in *In Defense of the Land Ethic*.

to know the value and value the object. Though the structure of Callicott's formulation might seem genuinely paradoxical, he seems more than comfortable with it. Perhaps he believes that any discomfort with such a formulation reflects attachment to a Modern, Cartesian worldview.

To rehash, what *I* am uncomfortable with is not the paradoxical structure of value that Callicott hopes to establish, but rather the means by which he arrives there. Simply put, Callicott cannot make an argument for a relational theory of intrinsic value for nature because he never makes an argument for a relational epistemology, nor does he try to convince his reader of such an epistemology in any way other than to gesture toward quantum theory. Given the extent to which Callicott's ethic seems to depend on his relational theory of intrinsic value and a corresponding relational epistemology, it is problematic for Callicott to resort only to empirical science to make a case for it; it will be this facet of Callicott's moral thought I attempt to repair when, near the conclusion of the present work, I apply my reading of Descartes to the problem of intrinsic value.

<u>The common logic of Descartes' critics</u>

In this brief last part of the first section, I hope to recount two important themes that emerged in the critiques of Descartes I reproduced in this section: the first involves an undeveloped logic concerning how beliefs or belief systems ("worldviews," in Callicott's terminology) influence (cause) practices, and the second is a certain assumption about how two important distinctions in Cartesian philosophy are taken to relate to one another.

We saw in White's seminal piece a(n) (ideal-)historical reading of a set of empirical circumstances. In this piece, White looks outward at the world, as it were, and sees a state of events, which he labels the "ecologic crisis." Who, or what, is to blame?: A set of (Christian) beliefs about metaphysics. On Cartesian terms, by holding responsible a set of (mental) beliefs for a set of observed phenomena, White has implicated *res cogitans* in *res extensa*, blamed thought for something in extension.[52]

Do (mental) beliefs so simply or easily effect change in the physical world? There is a common logic among critics of Descartes that seems to agree with this undeveloped conception of causality between beliefs and actions to which White seems committed. Plumwood does something similar with her notion of "linking postulates," and Callicott frequently makes claims connecting certain attitudes to the Modern "worldview" and certain other attitudes to the "postModern" perspective or the perspective of the "New Physics." While I have no interest in arguing that either beliefs or physical (extended) practices are unimportant — indeed, either can be said to influence power structures, and either can be implicated in a moral crisis — I do find this too-simple monocausal relationship between a single mental state (or mode, in Descartes's technical vocabulary) and a (set of) physical state(s) problematic for Descartes' critics.

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[52] Alternatively, one might argue that the Christian beliefs White holds responsible for the "ecologic crisis" are not thoughts or ideas, *per se*, but are instead the set of material circumstances that are suggestive of Christian beliefs. In other words, perhaps White only uses the intertwined dualisms of the Judeo-Christian cosmogony as shorthand for a set of practices — a set of practices he takes to be *actually* responsible for the state of affairs White refers to as the "ecologic crisis." If this is so, when White holds such Christian practices responsible for the "ecologic crisis," he is doing nothing more than analyzing the world as a Newtonian (or Cartesian) physicist would, as a set of cause-and-effect relationships. But no historian, let alone a historian who is also an ecological or animal ethicist, would be happy with such a reductionist, mechanistic model, leading us to negate the *reductio* premise I set out at the top of this footnote.

The other theme I want to unpack, which is more immediately relevant for the present work, involves the way in which several of Descartes' critics explicitly and easily connect two Cartesian distinctions. The two distinctions in question are the subject-object distinction, and the thought-extension/mind-body dualism. For instance, in her list of problematic dualisms, Plumwood mentions the subject-object distinction alongside the mind-body distinction (or substance dualism) without clearly explaining how each supposedly entails the other. Callicott often mentions (as is visible in several of the above his quotations, reproduced in the previous part of the present work) what he refers to as Descartes's distinction between subject and object in the same breath that he mentions Descartes's distinction between *res extensa* and *res cogitans*, even using appositive phrases to equate the two distinctions.

It is my contention that to leap quickly from the distinction between the subject who knows and thinks and the object that is thought of and known, established at the very beginning of Descartes's *Meditations* (with his methodological doubt), to the doctrine of substance dualism established near the conclusion of the *Meditations*, is unsound. It is indicative that critics of Descartes often read him backward — taking the distinction between subject and object to be the simplistic dualism presented at the conclusion of the *Discourse* and *Meditations*. In equivocating between the relationship between *res extensa* and *res cogitans*, on one hand, and subject and object, on the other, with no justification for doing so, Descartes' critics reveal that have not engaged in a *critical* reading of Descartes' works, a reading that *takes seriously* the moment of doubt at the beginning. Descartes' critics do not begin by doubting, but rather, I suspect, by being anxious — about the lives of animals, the fate of the environment, etc. At the beginning

of the *Meditations*, Descartes declares, "I realized that it was necessary, once in the course of my life, to demolish everything completely and start again right from the foundation…. So today I have expressly rid my mind of all worries and arranged for myself a clear stretch of free time. I am here quite alone, and at last I will devote myself sincerely and without reservation to the general demolition of my opinions."[53] I hope that Descartes' critics have sincerely and without reservation done the same for their own opinions. If they do, they might be surprised to receive a well-grounded ecologic or animal ethic a second time, despite expectation.

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[53] Réne Descartes, *Meditations on First Philosophy*, CSM 2:12.

§II. Doubting (with) Descartes— a reading of the *Meditations*

This section of the present work will be broken into several parts, throughout which I will provide a reading of the first five Meditations (and part of the Sixth). This section will provide the groundwork for my primary argument in this project, that while Descartes may have advocated substance dualism, such a conclusion (as well as its problematic fallout for ecological and animal ethics) is not entailed by Descartes's approach, as laid out in the first five Meditations. While I will touch on all of the important moments in Descartes's argument in the *Meditations*, including his skeptical methodology (doubt), his argument for the *cogito*'s existence, his argument for a theodicy of error, and his argument for God's existence, the focal point of my reading will be what scholars have called the "Cartesian Circle," a moment of supposedly circular reasoning found in the first five Meditations.

Descartes's purpose in the first five Meditations is to find some stable, trustworthy truth-criterion for ideas that appear compelling and indubitable. In other words, Descartes wants to show that whatever is "clearly and distinctly perceived" can be trusted to be true by the perceiver. The charge of circularity traditionally waged at Descartes rightfully points out that Descartes needs some rule to establish the truth of clear and distinct perceptions before the meditator can be certain even that she exists, but that Descartes can only establish this rule after God is found to exist (a proposition that requires the meditator to know she herself exists). Rather than attempt to save Descartes from the charge of circularity, I attempt to read his *Meditations* as a self-consciously circular piece. The circularity of the *Meditations*, is in fact, I contend, its greatest strength. The *Meditations* makes the case that both the existing, thinking subject (the

cogito) and God (whose arguably most important role in the *Meditations* is to make existence itself possible) must be determined to exist simultaneously, given Descartes' stringent skeptical criteria. The implication is that knowledge of God's existence requires the existing God that makes that knowledge possible, and *vice versa*. On my reading, then, Descarte's epistemology rests on a paradoxical structure in which God's independent existence can only be known within the confines of the subject's thought (*cogito*). For God to be genuinely cognized as a distinct, God must be recognized as never existing outside of thought. The payoff for this reading will largely come in the third section of the present work, where I take up Descartes' critics and return to Callicott's theory of relational intrinsic value.

Doubt

Let us read Descartes forward rather than backward. Let us doubt *with* Descartes before doubting Descartes. After all, before we decide that Descartes's hyper-rational style of obsessive, unhealthy doubt and overly logical argumentation do not reflect our experience of the world, should we not be willing to see — just for a minute — if they do? Indeed, those critiques of Descartes that associate his work with a too-erudite style of argumentation, one that lacks attentiveness to sensibility and intuition (see, for instance, Ruether quoted above, as well as Callicott, Midgley, and Plumwood), ironically assume that what they read when they read the *Meditations* is just that, a linear argument. In so doing, it is they who perpetuate the stereotype of the false and rigid logic they attribute to Descartes. Certainly the *Meditations* contains arguments, but we should remember it is in the structure of a set of meditations, of spiritual practices the purpose of

which is to cultivate understanding. Descartes asks his reader to try to doubt what he doubts, think what he thinks (though perhaps not in the same order he does). Before we oppose his arguments, or his supposedly hyper-rational style of argumentation, we should meditate alongside him and see where it takes us. Philosopher and historian John Carriero believes that considering the *Meditations* to be a set of spiritual exercises for the reader (the meditator) to practice is the most appropriate way to understand and contextualize the text: "For Descartes, it is the 'getting it' or 'seeing' that counts…. What is important to Descartes is to get the meditator to the point where she has indisputably seen some truth… How exactly she gets there is not important."[54] Yes, Descartes wants his reader to realize certain truths, e.g., that she exists, that God exists, etc., but these truths are not *deduced* using a system of rigid logic. Instead, the reader, the meditator, is meant to clearly and distinctly recognize necessary truths to be just that — necessarily true — even while doubting every principle traditionally used in logical deductions. Let us operate, then, without the assumption that Descartes is giving the meditator linear arguments he finds to be indubitable, arguments from a pre-determined indubitable premise. Rather, he presents the meditator with a *pattern* of thought to tread, a winding forest path he believes will lead the meditator to indubitable truths — on her own terms.

Let us start with Cartesian doubt, or, the skeptical method. Descartes supposes that if the meditator is to demand certainty from her beliefs, she must start from a state of

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[54] John Carriero, *Between Two Worlds: A Reading of Descartes's Meditations* (Princeton: Princeton University Press, 2009), p. 77.

anxiety about their truth — she must doubt her senses[55], doubt that she is awake[56], and suppose that some evil demon could be deceiving her at every turn, feeding false information into her mind.[57] Doubting her senses means she must admit she lacks certainty for every belief based on perceptions she acquires in non-ideal circumstances. The diamonds and gold she sees on the ground may turn out to be, upon closer inspection, merely glass and copper.[58] If she is to draw any conclusions about the world later, she must recognize she lacks certainty about beliefs based on such sensory data now. She knows, too, that when she dreams, she may see things that are not real without knowing it: "As I think about this…, I see plainly that there are never any sure signs by means of which being awake can be distinguished from being asleep…. Suppose then that I am dreaming, and that these particulars – that my eyes are open, that I am moving my head and stretching out my hands – are not true. Perhaps… I do not even have… a body at all."[59] But even when the meditator dreams, Descartes notes, "it must surely be admitted that the visions which come… are like paintings, which must have been fashioned in the likeness of things that are real."[60] While dreaming, Descartes claims, the meditator's experience must be grounded on "simpler and more universal things," which must be real.[61] She thus cannot doubt (yet) that the colors she sees (in dreams, or while awake) are unreal, or that the rules of geometry and arithmetic, that "two and three added

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[55] Descartes, *Meditations*, CSM 2:12.
[56] Descartes, *Meditations*, CSM 2:13.
[57] Descartes, *Meditations*, CSM 2:15.
[58] Descartes, *Discourse*, CSM 1:112.
[59] Descartes, *Meditations*, CSM 2:13.
[60] Descartes, *Meditations*, ibid.
[61] Descartes, *Meditations*, CSM 2:14.

together are five, and [that] a square has no more than four sides" are true.[62] These simple qualities and *a priori* truths require another type of doubt. This is where Descartes hypothesizes a "slight and, so to speak, metaphysical"[63] doubt about a "malicious demon of the utmost power"[64] who has implanted in the meditator the "simpler and universal things" like color and supposedly *a priori* truths. If an external force such as a malicious demon is deceiving her, then even those things she is most certain of may not be true.

Cogito

It is here that Descartes transitions from the First to the Second Meditation. "I will suppose then, that everything I see is spurious [*falsa*]. I will believe that my memory tells me lies, and that none of the things that it reports ever happened. I have no senses. Body, shape, extension, movement and place are chimeras. So what remains true?"[65] Descartes's answer is the proposition, "*I am, I exist* [Ego sum, ego existo…]."[66] Why? Even if Descartes is being deceived by a malicious demon, there must be something for that malicious demon to deceive which is, in Descartes's case, that thing which is aware of the possibility for that very deception: "[L]et him deceive me as much as he can, he will never bring it about that I am nothing so long as I think that I am something. So after considering everything very thoroughly, I must finally conclude this proposition, *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my

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[62] Descartes, *Meditations*, ibid.
[63] Descartes, *Meditations*, 2:25.
[64] Descartes, *Meditations*, CSM 2:15.
[65] Descartes, *Meditations*, CSM 2:16.
[66] Descartes, *Meditations*, CSM 2:17.

mind."[67] The meditator is simply expected to clearly and distinctly perceive that *if* she doubts her own existence (or anything, for that matter), she must exist, at least in that moment of doubting. There is no *logical* entailment ("*therefore*") that connects the two propositions (in the *Meditations*). The connection is simply intuited.

Furthermore, it is incredibly important for Descartes that the existence proposition only obtain with certainty during the act of attending to that proposition: "…this proposition… *I exist*, is necessarily true whenever it is put forward by me or conceived in my mind." When this proposition is not "put forward" or "conceived," it is not certain that it is true. In other words, given the stringent requirements of Descartes's skeptical method, the meditator knows that the proposition, 'I exist' is true, but also knows that it obtains with certainty only when she knows it! "I am, I exist – that is certain," Descartes writes, "But for how long? For as long as I am thinking. For it could be that were I totally to cease from thinking, I should totally cease to exist."[68] Though Descartes does not explicitly assert as much, the implication is that the proposition, 'I exist when I know I exist,' is true with certainty, but only when I (the meditator) know(s) it.[69] To take it one step further, this means that the proposition, 'I exist, when I know that I know I exist,' must obtain but only when I know it, and *ad infinitum*. Thus, what Descartes is *not* saying is that the meditator can derive her own existence in such a way that it holds true when it is not being attended to; in short, at the conclusion of the Second Meditation,

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[67] Descartes, *Meditations*, ibid.
[68] Descartes, *Meditations*, CSM 2:18.
[69] It is noteworthy that Latin, the language in which Descartes originally wrote the *Meditations*, does not distinguish between the simple present tense and the present progressive. 'I exist' could very well be, 'I am existing,' lending further credence to the idea that Descartes only knows he is exist*ing when* he knows it. In other words, translating "Ego sum, ego existo" as "I am, I am existing" emphasizes the (possibly limited) duration of time through which the self's existence can be said to occur.

Descartes's metaphysics *cannot extend outside of his thinking*, outside of his epistemology. The I, specifically the *cogito*, *is* the entirety of reality — nothing appears to resist the *cogito*, and there is no way to anchor knowledge or existence outside of or apart from it. Even when Descartes describes himself as a "A thing that thinks [*Res cogitans*]… A thing that doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions," the meditator's *res*-ness is subject to the act of thinking, the *cogitans*.[70] There is no *res* without *cogitans* in the Second Meditation, no *thing* without its own *thinking*.

One key distinction we should make before proceeding involves the specific features of the *res cogitans*. It "doubts, understands, *affirms*, denies, is willing, is unwilling, and also imagines, *and has sensory perceptions*." First, we should note that the *res cogitans* "affirms," which, put in a different way, might mean "values." If this is so, then Callicott's assertion that, for Descartes, (only) the thinking subject is the source of value in Cartesian philosophy is accurate, so long as we only consider the first two Meditations. Second, we might want to ask: how does the *cogito* have "sensory perceptions" if the malicious deceiver hypothesis is still possible? Here Descartes makes a subtle distinction:

> For even if, as I have supposed, none of the objects of imagination are real, the power of imagination is something which really exists and is part of my thinking. Lastly, it is also the same 'I' who has sensory perceptions, or is aware of bodily things as it were through the senses. For

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[70] Descartes, *Meditations*, CSM 2:19 (my emphasis).

> example, I am now seeing light, hearing a noise, feeling heat. But I am asleep, so all this is false. Yet I certainly *seem* to see, to hear, and to be warmed. This cannot be false; what is called 'having a sensory perception' is strictly just this, and in this restricted sense of the term it is simply thinking.[71]

Given the possibility of a malicious demon, the meditator must suppose that there could be a distinction between the "real" world and the world as she experiences it.[72] While this means she does not have epistemic certainty of the "real" world, the world as it exists beyond her experience or thinking of it, she does still know she has sensory perceptions. Her experiences *are her experiences*, and insomuch as they are her experiences, they are real, or truthful. In other words, while the meditator still has no way of anchoring the truth of the world independent of her *cogito*, this is not the same as saying the *cogito* does not have sensory experience at all. Sensory experiences are described as "simply thinking," or as modes of thought rather than extension. That, by the end of the Second Meditation, sensory perceptions certainly exist will be important later — but the proposition 'sensory perceptions exist' is at this point in the *Meditations* still to be distinguished from 'sensory perceptions reflect a really existing world independent of the *cogito*'s existence.'

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[71] Descartes, *Meditations*, ibid.

[72] This is an almost identical movement to the one Kant makes in the Transcendental Aesthetic, the first major section of the *Critique of Pure Reason*. In this section, Kant claims that concepts can only access the contents of the sensibility (appearances), and the world as it is independent of these appearances he labels things-in-themselves (*Dinge-an-sich*). See Immanuel Kant, *Critique of Pure Reason*. Trans. by Paul Guyer and Allen W. Wood (Cambridge: Cambridge University Press, 1997).

Because it is so important to establish that prior to the Third and Fourth Meditations, the meditator's *cogito* is the entirety of her (certain) reality (even though she knows she has sensory perceptions *qua* thoughts), we will turn to another argument made in the Second Meditation that evinces the intimate entailment between thinking and existence, namely Descartes's famous argument concerning the piece of wax. "Let us take, for example, this piece of wax," Descartes writes.

> It has just been taken from the honeycomb; it has not yet quite lost the taste of the honey; it retains some of the scent of the flowers from which it was gathered; its colour, shape and size are plain to see…. But even as I speak, I put the wax by the fire, and look: the residual taste is eliminated, the smell goes away, the colour changes, the shape is lost, the size increases…. But does the same wax remain? It must be admitted that it does; no one denies it, no one thinks otherwise.[73]

The wax is held to exist regardless of its accidental sensible features (scent, shape, etc.) — why? Descartes's answer is that "the perception I have of it [the wax] is a case not of vision or touch or imagination – nor has it ever been, despite previous appearances – but of purely mental scrutiny…"[74] The totality of what the meditator perceives of the wax is its set of accidental features, including but not limited to its taste, scent, color, shape, and size. Yet when the wax changes any or all of these accidental features, it is still taken to be wax, not because of any of these sensory features, but because of the meditator's "purely mental scrutiny." The categories that make the wax what it is — that is, *wax* —

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[73] Descartes, *Meditations*, 2:20.
[74] Descartes, *Meditations*, 2:21.

are mental. Sensory data do not contribute whatsoever to it being wax.[75] While someone might immediately be inclined to disagree with this passage ('Of course sensory data are important — how else could wax be discerned from a coffee cup?'), we should remember that the wax is metaphorical, a representation of the extended world *as it appears to the meditator*. The meditator does not yet know that anything is 'out there,' or, external to her. If all she knows is that appearances manifest in different ways (melted, smelling of flowers, etc.), these distinctions between appearances tell us about our mental *categories* only. After all, if the entirety of extended existence is a fabrication by some evil demon, I could be deceived; maybe the mug sitting in front of me and the coffee contained within it are made of ectoplasm, or worse, completely imaginary, fed to my mind via wires. The meditator still has no reason to believe in anything existent apart from the *cogito*. The *cogito*, thus far, knows nothing other than itself.

A theodicy of error

But this state of solipsism changes with the beginning of the Third Meditation. In the Third Meditation Descartes reveals the importance of God's existence and goodness for his project. Why does Descartes need God to exist (and be good)? Descartes writes,

> But what about when I was considering something very simple and straightforward in arithmetic or geometry, for example that two and three

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[75] It is worth noting that in the wax passage, Descartes is likely arguing against a Scholastic and Aristotelian conception of epistemology, in which sense data contributes to the sum total of ideas in the *cogito*. For Descartes, like Kant after him (but unlike Hume or Aquinas and the Scholastics), sense data do not carry ideas — instead, ideas meet up with sense data. For both thinkers, without this separation between sensibility and understanding, to have certain knowledge would be impossible (whether one risk being deceived by a malicious demon or simply lack access to *Dinge-an-sich)*.

> added together make five, and so on? Did I not see at least these things clearly enough to affirm their truth? Indeed, the only reason for my later judgement that they were open to doubt was that it occurred to me that perhaps some God could have given me a nature such that I was deceived even in matters which seemed most evident. And whenever my preconceived belief in the supreme power of God comes to mind, I cannot but admit that it would be easy for him, if he so desired, to bring it about that I go wrong even in those matters which I think I see utterly clearly with my mind's eye.[76]

If God is either non-existent, not omnipotent, or not omni-benevolent — which is equivalent to saying, 'If it is possible that a malicious demon is deceiving me (the meditator)' — then the meditator will never have certainty about even the simplest things, including *a priori* truths such as "that two and three added together make five." God could have created the meditator in such a way that she always erred, "even in matters most evident." To do so would be akin to creating prelapsarian humans in such a way that they would *necessarily* fall.

What Descartes needs is a theodicy for intellectual error. If he can achieve such a thing, then the hypothesis of an evil demon is proven wrong, and Descartes can crack the epistemological door to the outside world. Error, then, must be the responsibility of the human being and not God. Indeed, this is exactly what Descartes says: His explanation of an intellectual error for which a human is responsible is when the human's (infinite)

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[76] Descartes, *Meditations*, CSM 2:25.

will exceeds the boundaries of her finite intellect[77]; in other words, if the meditator makes a judgment about that of which she does not have full knowledge, she will have willed herself into error. It is, in principle, possible to avoid such error altogether: "The cause of error must surely be the one I have explained; for if, whenever I have to make a judgement, I restrain my will so that it extends to what the intellect clearly and distinctly reveals, and no further, then it is quite impossible for me to go wrong."[78] This passage contains Descartes's derivation of clear and distinct perceptions; as long as a person sticks to making judgments about matters of which she has clear and distinct perception, she is making *justified* judgments. To have a clear and distinct perception of *x* — assuming for the moment that a good, omnipotent God exists — is to have complete knowledge of *x*. How does Descartes know this is the case? He continues: "This is because every clear and distinct perception is undoubtedly something, and hence cannot come from nothing, but must necessarily have God for its author. Its author, I say, is God, who is supremely perfect, and who cannot be a deceiver on pain of contradiction; hence the perception is undoubtedly true."[79] What is the anatomy of a clear and distinct perception? This is not exactly transparent in the *Meditations* but presumably requires that the subject (or meditator) experience some perception, complete unto itself, as (self-)evidently true. If the meditator clearly and distinctly perceives something, she has

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[77] Descartes invokes the Aristotelian distinction between *negation* and *privation* to make this claim. If the limits to human knowledge (the finite intellect) contingently resulted from some imperfection in God, then it would constitute a privation and be unjust — God (and knowledge) could not be saved. If God, on the other hand, created the human intellect such that it were finitely good but still not deprived, the finiteness would constitute a negation — humans would be responsible for their own mistakes in judgment. See Descartes, *Meditations*, CSM 2:38-42.
[78] Descartes, *Meditations*, CSM 2:43.
[79] Descartes, *Meditations*, ibid.

no choice but to believe it, and as noted in the above passage, is justified in believing nothing else. Because all perceptions, being irrefutably "something" given the meditator's certainty that she (as *res cogitans*) has sense perceptions, must have their original (formal) origin (cause) in God, and because the perceptions are clear and distinct — not mutilated and confused by the finite perceiver — assuming God exists and does not actively deceive, clear and distinct perceptions must carry certainty. In this way, all true and justified beliefs are clearly and distinctly perceived, and all clear and distinct perceptions are true, justified beliefs. It is upon this foundation, a rule derived from theodicy that all clear and distinct perceptions are true, that Descartes can ground *both* his epistemological and metaphysical projects; the meditator can only make certain judgments if they are based only on other certain judgments. Descartes concludes the Fourth Meditation with a vast understatement, writing, "So today I have learned not only what precautions to take to avoid ever going wrong, but also what to do to arrive at the truth."[80]

My readers will note that though I have claimed Descartes requires a theodicy of error to ground this rule concerning the truth of clear and distinct perceptions, I have only presented his explanation for how human beings err when they make intellectual judgments based on mutilated and confused perceptions, and not Descartes' arguments for God's existence.[81] They might also notice that I asserted that the rule for clear and distinct perceptions (that is, the rule that *iff* a perception is clear and distinct, it is

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[80] Descartes, *Meditations*, ibid.
[81] The formulation "mutilated and confused" is Spinoza's way of describing a perception or idea that is not clear and distinct. I adopt it here out of convenience.

absolutely true) is the ground of Descartes's project. But is it not until the end of the Fourth Meditation that Descartes believes he has proved the rule? What was the point of the *cogito*? How does Descartes aim to prove God even exists, let alone that God is omni-benevolent and omnipotent?

God and the Cartesian Circle

We should pause here and turn back to the Second Meditation — was the meditator not certain (clearly and distinctly) of her own existence as *res cogitans*? We seem to be caught in a circular argument. Descartes does not prove the rule for clear and distinct perceptions until the end of the Fourth Meditation. Indeed, in the introductory synopsis of the *Meditations*, Descartes even writes, "In the Fourth Meditation it is proved that everything that we clearly and distinctly perceive is true… These results need to be known both in order to confirm what has gone before and also to make intelligible what is to come later."[82] But this remark is suggestive of the possibility that there can be no certainty of any of the steps leading up to the rule for clear and distinct perception, not even the existence of the *cogito*. Perhaps Descartes's argument for God's existence, omni-benevolence, and omnipotence (i.e., God's perfection) obviates the charge of circularity. However, if we turn to Descartes's first argument for the existence of God (in the Third Meditation), we find this:

> And when I consider the fact that I have doubts, or that I am a thing that is incomplete and dependent, then there arises in me a clear and distinct idea

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[82] Descartes, *Meditations*, CSM 2:11.

> of a being who is independent and complete, that is, an idea of God. And from the mere fact that there is such an idea within me, or that I who possess this idea exist, I clearly infer that God also exists, and that every single moment of my entire existence depends on him.[83]

Descartes begins the passage by considering that the meditator is a doubting thing, i.e., the same evidence Descartes presented for the existence of the *cogito* in the Second Meditation. When he "consider[s]" these doubts, "then there arises" a "clear and distinct idea" of God, who is both "independent and complete," i.e., which exists apart from the *cogito*. When Descartes uses the "clear and distinct" formulation to describe the idea of God that emerges, in part, from the same perceptions that ground the *cogito*, it heavily implies that Descartes requires the meditator to be certain that she exists as *res cogitans* (as the *cogito*) before discovering that God must exist. Yet it is not until the conclusion of the Fourth Meditation that the meditator knows what she clearly and distinctly perceives must be true, and even then it requires that she already know that a perfect God exists.

I will discuss Descartes' proofs of God shortly, but for now I want to focus on the potential charge of circularity. I am not nearly the first to mention the so-called "Cartesian Circle." In the Second Set of Objections to the *Meditations*, Descartes's correspondent Antoine Arnauld writes,

> [Y]ou are not yet certain of the existence of God, and you say that you are not certain of anything, and cannot know anything clearly and distinctly

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[83] Descartes, *Meditations*, CSM 2:37.

> until you have achieved clear and certain knowledge of the existence of God. It follows from this that you do not yet clearly and distinctly know that you are a thinking thing, since, on your own admission, that knowledge depends on the clear knowledge of an existing God.[84,85]

The charge is a large one, and involves the possibility that Descartes has begged the question on a massive scale. Instead of attempting to save Descartes from this charge, I hope to read Descartes's move charitably in order to reveal something about the *Meditations* that perhaps even Descartes himself never realized. I hope to argue that the supposed Cartesian Circle is one of the strongest aspects of Cartesian philosophy.

Let us recall three elements of the discussion thus far: (1) The *Meditations* is in the form of a set of spiritual exercises, in which the reader or meditator is expected to *see* (clearly and distinctly) what is necessarily true, not be convinced through linear arguments that presuppose a singular premise and argue toward a conclusion. (2) Descartes's 'arguments' for God's existence are dependent upon the meditator's knowledge of the *cogito*'s existence, *and* the meditator's certain knowledge of the *cogito* is dependent upon God's existence. And (3) prior to determining God's existence in the Third and Fifth Meditations, the meditator has no certainty that anything exists independently of the *cogito* — all things are things that are merely thought.

In taking (1) seriously, we should not immediately condemn Descartes for giving the meditator a circular argument. Furthermore, we should be prepared to accept that

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[84] Antoine Arnauld, *Objections and Replies*, CSM 2:89.
[85] For just two of many well-known articulations of this charge (as well as defenses on Descartes's behalf), see, e.g., Alan Gewirth, "The Cartesian Circle," *Philosophical Review* 50 (1941): 368-395 and Lex Newman, "The Fourth Meditation," *Philosophy and Phenomenological Research* 59 (1999): 559-91.

Descartes may be explicitly or implicitly arguing for something that sounds (or is) paradoxical. Descartes has not established that any *a priori* propositions are true prior to the knowledge of God's existence — the meditator is at a stage in her spiritual exercises where even the law of non-contradiction does not obtain. She is not blind — far from it — but what she is willing to do is deny the truth of all of her beliefs. She erects a bulwark, a floodgate, to withstand the barrage of oncoming waves of uncertain propositions. This is the skeptical method (the doubt) of the First Meditation. The meditator "hold[s] back… assent from opinions which are not completely certain and indubitable."[86] Yet one gets the sense that this is a difficult exercise; after all, "the habit of holding on to old opinions cannot be set aside so quickly" even after the meditator knows the *cogito exists*.[87] The walls of the floodgate are broken by the waves and must be rebuilt — 'no, all I know is that I exist, and nothing else.' They are broken again, every time an unjustified belief, a belief based on preconceived opinions or sensory data, is held, and then they must be rebuilt, reaffirmed with doubt.

How does this cycle end? How do I derive a theodicy? How can I get to the point where I clearly and distinctly perceive that clear and distinct perceptions are true? Descartes's answer is, as might be expected, belief in God's existence:

> But as regards God, if I were not overwhelmed by preconceived opinions, and if the images of things perceived by the senses did not besiege my thought on every side, I would certainly acknowledge him sooner and more easily than anything else. For what is more self-evident than the fact

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[86] Descartes, *Meditations*, CSM 2:12.
[87] Descartes, *Meditations*, CSM 2:23.

> that the supreme being exists, or that God, to whose essence alone existence belongs, exists?[88]

It is predictable that Descartes thinks God anchors the meditator's clear and distinct perceptions in truth. What is more shocking is that Descartes writes, "For what is more self-evident than the fact that the supreme being exists…?" According to Descartes, the theodicy of error and the knowledge of God's existence are not difficult-to-determine modes of thought. God's existence is *known* all along; it is *self-evident*. That God exists is something the meditator has perceived since the beginning, but only in a mutilated and confused way — after days of concentration, and more importantly, after doubting her beliefs, after clearing out all her "preconceived opinions," the existing God is recognized for having existed all along. Only one other thing is so obviously true to the meditator, that "during these past few days I have been asking whether anything in the world exists, and I have realized that from the very fact of my raising this question it follows quite evidently that I exist. I could not but judge that something which I understood so clearly was true…."[89]

On my reading, Cartesian doubt does not erect a barricade through which a thinking, self-consciously existing subject allows only certain beliefs to pass. Instead, doubt is the construction of a temple the purpose of which is to be *brought down*, not only from outside, but from within. The meditator's tribulation: 'I err, so I doubt; I err and doubt again; I err and doubt again; I err and doubt again. When does it stop?' And then the meditator discovers two things simultaneously: that she exists, and that God

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[88] Descartes, *Meditations*, CSM 2:47.
[89] Descartes, *Meditations*, CSM 2:41.

exists — doubting that both exist allows her to recognize *that she never could have doubted either*. Neither can be seen so clearly and distinctly before the Cartesian movement of doubt because this movement is the only one that can allow the meditator to see the paradox of the existing God and *cogito* for what it is and always has been — indubitable, an impossible-to-doubt paradox, a paradox that rests at the ground of all thinking and existing. In other words, only through attempting to doubt these two existences can they be recovered in full, with the recognition that doubt cannot stave off God or the *cogito*; only through this process can the rule for clear and distinct perceptions itself be clearly and distinctly perceived. This is why the hypothesis concerning the malicious deceiver, the evil demon, is described as a "very slight and, so to speak, metaphysical doubt."[90] It is (upon reflection) a tool to force the meditator to begin at the beginning, not with the existence of the *cogito* in the Second Meditation, and not with the existence of God in the Third, but with the revelation of both propositions simultaneously. Each arc of the so-called Cartesian Circle depends on its counterpart (see 2, above). The implication is that the Cartesian *cogito* exists only because of God, and the Cartesian God exists only *because of the* cogito. *I think* only insomuch as God exists, and God exists only insomuch as *I think*. This recalls element (3); in the end, Descartes never allows the meditator an intellectual escape from the *cogito*, but nonetheless, she is allowed to conquer the solipsism of the Second Meditation.[91]

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[90] Descartes, *Meditations*, CSM 2:25

[91] Philosopher Brayton Polka makes a similar point about Descartes in *Truth and Interpretation*, though he focuses his attention on the *Discourse*. See Brayton Polka, *Truth and Interpretation: An Essay in Thinking* (New York City: St. Martin's, 1990).

How? The answer lies in the structure of Descartes' arguments for God's existence. Recall two things: first, that no knowledge can be independent of the *cogito*, and second, that when Descartes describes God in the beginning of the Fourth Meditation (after offering the first proof in the Third), he equates "an idea of God" to "a clear and distinct idea of a being who is independent and complete."[92] If we are willing to accept that some of the relationships expressed in the *Meditations* are structured paradoxically, we should consider the possibility that despite being somehow grounded in the *cogito*, the God of the *Meditations* is genuinely "independent" of the *cogito* and "complete" unto Godself. What Descartes appears to need from his arguments for God's existence is to convince the meditator that there is something outside the *cogito* or to convince her that it is possible to have something within the *cogito* that is also outside it. Though in the Third Meditation, Descartes appears to use the former formulation[93], given the circularity of the *Meditations*, the meditator could never clearly and distinctly perceive God's existence as something that is *known* independently of the *cogito*. Since, as we have seen in the Second Meditation, Descartes is committed to the claim that we cannot know that anything exists that is not currently *known* (read: clearly and distinctly perceived to be true) by the *cogito*, Descartes would have difficultly fully extricating God's existence from the finite subject's thought (as long as God is existing). If the paradoxical structure between the *cogito*'s and God's existence that I articulated in the preceding paragraphs is

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[92] Descartes, *Meditations*, 2:37. Note that this functional definition of God could also apply to the term 'universe.'

[93] This is something that Levinas picks up from Descartes's Third Meditation and frequently mentions. See, e.g., Emmanuel Levinas, "God and Philosophy" (1975), In *Basic Philosophical Writings*. Ed. and trans. by Adriaan Peperzak, Simon Critchley, and Robert Bernasconi (Bloomington: Indiana University Press, 1996): 66-77.

true of Descartes's text, this is exactly what we would expect of Descartes' arguments for God's existence, namely that even though they argue for God's existence as a complete, independent being, this independence does not entail a lack of relation with the *cogito*. The point from the Second Meditation holds — all things that are known are known only in and with the *cogito* (and never apart form it, for they would need to be doubted). But now, with the arguments for God, we have something added to this Second Meditation formulation — just because nothing is known to exist apart from the *cogito* does not mean nothing *other than* the *cogito* is known to exist.

It is this paradoxical relationship with the *cogito* that is expressed most readily in the Fifth Meditation, which contains Descartes's ontological argument for God's existence. The bulk of Descartes's argument occurs in the following passage:

> Since I have been accustomed to distinguish between existence and essence in everything else, I find it easy to persuade myself that existence can also be separated from the essence of God, and hence that God can be thought of as not existing. But when I concentrate more carefully, it is quite evident that existence can no more be separated from the essence of God than the fact that its three angles equal two right angles can be separated from the essence of a triangle, or that the idea of a mountain can be separated from the idea of a valley.[94]

Insomuch as the properties of a triangle are inseparable from the triangle, the existence of God is inseparable from God's essence. The meditator, if she is really thinking of God

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[94] Descartes, *Meditations*, CSM 2:46.

clearly and distinctly (if she is concentrating carefully), *will* know that God exists; that there is no such thing as a non-existing God. One of the premises for this argument is established (retroactively) shortly after this passage in the Fifth Meditation. Descartes writes, "[W]henever I… bring forth the idea of God from the treasure house of my mind as it were, it is necessary that I attribute all perfections to him… And this necessity plainly guarantees that, when I later realize that existence is a perfection, I am correct in inferring that the first and supreme being exists."[95] Any supreme or perfect being obviously has perfection, so Descartes's logic goes. But upon bringing "forth the idea of God from the treasure house" of her mind, the meditator realizes that existence is one such perfection. This is why it is impossible to conceive of a God that does not also exist. If one attempts to conceive of God but does not believe that such a God exists, he has failed to conceive of God clearly and distinctly.

There are two things to which I want to draw attention concerning this passage before describing how it frees the meditator from the solipsism of the Second Meditation. The first is that ontological arguments, including Descartes's, are often considered to be extremely problematic arguments. Near the conclusion the Transcendental Dialectic of the first *Critique*, Kant famously argues that the ontological argument fallaciously treats existence like any other predicate. He concludes that the only sound structure an ontological argument can take is the form of a conditional: for instance, '*If* a perfect being exists, then that perfect being necessarily exists.'[96] Kant's critique is meant to render the ontological argument unhelpful for speculative theologians — what purpose

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[95] Descartes, *Meditations*, CSM 2:46-7.
[96] Kant, *Critique of Pure Reason*, A567/B595-A602/B630.

could it serve if God's necessary existence is contingent upon God's existence? But we should recall once again that Descartes's *Meditations* is a set of meditations. The individual 'arguments' he provides matter quite little. This is why after defending the ontological argument from several counterarguments in the *Meditations*, Descartes writes, "But whatever method of proof I use, I am always brought back to the fact that it is only what I clearly and distinctly perceive that completely convinces me."[97] Descartes presumes that his meditator is already meditating with him, doubting with him — even if his argument fails to convince the meditator from *a priori* premises that God exists, perhaps the meditator has clear and distinct intuitions that God exists, or out of faith is inclined to interpret a conditional formulation of the ontological argument toward the favorable conclusion (i.e., toward the conclusion that does not leave the meditator with only solipsism and skepticism).

The second thing I want to mention concerning Descartes's ontological argument is that the language of bringing "forth the idea of God from the treasure house" of the mind strongly suggests that the individual finite subject, the *cogito*, must participate in recognition of the existence of God. For Descartes, the mind may already contain the idea of God, as I argued above, but in bringing this idea forth, in making it explicit to herself, the meditator involves the *cogito* in the conclusions of the ontological argument. What are these conclusions? As is obvious, that God necessarily exists is the conclusion. But we should remember why a proof of God is located in the *Meditations*. By perfection Descartes not only implies existence but also omni-benevolence and

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[97] Descartes, *Meditations*, CSM 2:47.

omnipotence — he needs to entwine these qualities to satisfy the theodicy of error for his rule of clear and distinct perceptions. Though the (historical) Descartes who authored the *Meditations* likely held a classical or Deistic conception of God (specifically a God made of mental substance distinct from the creation), here we should take most seriously the function that God serves in the *Meditations*: *as that which makes it possible for us to clearly and distinctly perceive that clear and distinct perceptions are always true*. The arguments for God's existence in the *Meditations* should not be interpreted strictly as theological arguments, but rather as epistemological and metaphysical arguments (and ones that, as we will see in relation to Callicott and Midgley in the next section, have moral implications). About God's existence, Descartes writes, "I see that the certainty of all other things depends on this, so that without it nothing can ever be perfectly known."[98] The certainty of *all other things* depends on Descartes's God, whose existence is determined by turning inward and bringing forth the idea from the "treasure house" of one's own mind. Without such a God, existence is nothing more than hellish solipsism. It is thus safe to say that God is just this — that which makes it possible to know and experience a world other than one's own *cogito*. God is nothing other than indubitable existence as such.

It is with this in mind that we can turn to the beginning of the Sixth Meditation. Immediately after knowledge of the existence of God allows the meditator to trust what she clearly and distinctly perceives, Descartes moves on to sensory dispositions and corporeal things. About sense impressions (which Descartes refers to as "ideas" in this

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[98] Descartes, *Meditations*, CSM 2:48.

passage), he writes, "…God has given me no faculty at all for recognizing any such source for these ideas; on the contrary, he has given me a great propensity to believe that they are produced by corporeal things. So I do not see how God could be understood to be anything but a deceiver if the ideas were transmitted from a source other than corporeal things. It follows that corporeal things exist."[99] Because the meditator knows that the *cogito* exists and that its modes include only those like thinking, affirming, willing, unwilling, doubting, having sense impressions, etc., she knows too that it lacks the capacity (the "faculty") to derive the source of the sense impressions. In other words, since the *cogito* cannot extend outside itself (without God, that is), this limitation forces the meditator to doubt that bodies corresponding to her sense impressions really exist. But because the meditator knows she lacks such a faculty, and also that she has sense impressions (in the form of "ideas" internal to the *cogito*), this gives Descartes reason to hold that the meditator "has a great propensity to believe" that the sense impressions correspond with really existing corporeal modes (bodies) outside her. Because the meditator is positively inclined to believe that her sense impressions correspond to really existing bodies, and because she knows after the Second Meditation that she lacks any faculty to verify this belief clearly and distinctly, Descartes feels equipped to say that the meditator would not be *responsible* for believing that the sense correspond with really existing bodies should they, in actuality, not exist. This gives Descartes space to apply his theodicy of error; God could never create human beings in such a way that they would err solely by virtue of a flaw in their constitution (i.e., their lacking a faculty to verify the

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[99] Descartes, *Meditations*, CSM 2:55.

correspondence of bodies and sense impressions).[100] For this reason, sense impressions must have a ground in really existing bodies. In short, the *cogito*'s self-consciousness of its own epistemic limitations coupled with the clear and distinct perception of a God, guarantees the reality of external, extended things, of *res extensa* (extended 'stuff').

This movement is incredibly important, not only for Descartes's epistemological project, but also for the ecological and animal ethicist project that aims for a theory of intrinsic value. Descartes has made possible an awareness of *really existing* things (plants, animals, land formations, other humans, etc.) on the premise of a paradoxical relationship between God and the *cogito*. These existing things (existing *others*) are neither only contained within the Cartesian *subject* (the *cogito*) nor only *objective* (distinct from the *cogito*), on the grounds of the paradoxical Cartesian Circle in the *Meditations*. What we see in Descartes, then, is a more complex relationship between epistemological subject and object than we might expect. Yes, the *cogito* begins in a dualistic relationship with objects of its consciousness — this is where Descartes starts in the first two Meditations (the 'I' must doubt objects' existence lest it risk erring) — but after the rule for clear and distinct perception is clearly and distinctly perceived, the subject-object dualism is transfigured into dialectical relation between subject and object. That the *cogito* both contains and is contained by God — that the thinking 'I' grounds existence independent of itself and that existence external to the thinking 'I' makes it

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[100] Recall Kierkegaard's *Fear and Trembling*: "If there were no eternal consciousness in a human being… what would life be then but despair? If such were the case… then how empty and hopeless life would be! But that is why it is not so…." If a certain fact about the universe would make life necessarily unjust, then by that very implication, the fact about the universe must not be true. Kierkegaard echoes Descartes on this point, though of course he expresses it and its ramifications in quite a different way. See Søren Kierkegaard, *Fear and Trembling*. Trans. by Sylvia Walsh. Ed. by C. Stephen Evans and Walsh (Cambridge: Cambridge University Press, 2006), p. 12.

possible for that 'I' to think and exist — requires that the subject-object distinction be more than a mere dualism, for if it were a dualism the paradox of the Cartesian Circle would unacceptably fall into contradiction. This explains why it is necessary to doubt; even though intuitions concerning the existence of oneself and the existence of God can never be completely doubted, attempting to doubt makes possible a new way of interpreting both existences, namely in such a way that the truth of either entails the truth of the other, and that both together ground knowledge about external objects. In drawing this connection in the *Meditations*, we now have tools not only to argue against some of Descartes' problematic conclusions but also to respond on his behalf to his ecological and animal ethicist critics.

§III. Animal machines, substance dualism, and relational epistemology

In this final section, I will deliver on the promises I made in the first and second sections, using my reading of the *Meditations* (and specifically the Cartesian Circle contained therein) to refute some of Descartes' fallacious conclusions alongside misconstruals of Descartes propagated by his ecological and animal ethicist critics. In the first part, I will return to Midgley's assertion that rationality is an inappropriate differentia to distinguish between humans and animal automatons. In the second part, I will attempt to make a case that Cartesian substance dualism is derivative of a deeper quasi-monistic relationship between the *cogito* and God, and is a less important feature of Descartes's project than his critics often presume. I will conclude by returning to Callicott. I attempt to use the Cartesian epistemology I unpacked in the previous section of the present work to save Callicott from having to resort to quantum physics (or other sciences) to ground his own theory of intrinsic value.

Midgley and animal machines

In a 1640 letter to his close friend and correspondent Marin Mersenne, Descartes writes,

> As for brute animals, we are so used to believing that they have feelings like us that it is hard to rid ourselves of this opinion. Yet suppose that we were equally used to seeing automatons which perfectly imitated every one of our actions that it is possible for automatons to imitate; …in this

> case we should be in no doubt that all animals which lack reason were automatons too.[101]

The contents of this letter reveal three important features of Descartes's problematic doctrine of animal minds. The first and second are obvious: Descartes believed that animals were automatons (that they lacked any robust sort of consciousness), and also that the key criterion through which an observer could distinguish between a brute animal and a human being is through the brute animal's lack of reason. The third feature of Descartes's doctrine to which I want to draw attention is that, as demonstrated in this letter (and elsewhere, as we will see), Descartes believed that whether an object (an animal, plant, human, chair, or whatever) has the capacity to reason is an empirically discernible property. Descartes uses rationality, the quality of *having a* cogito, as a litmus test to determine whether some cluster of sensory data represents an automaton or something conscious.

If we recall Mary Midgley's criticism of Descartes in *Beast and Man*, we see that she is arguing against passages in Descartes's corpus such as the one above. "Altogether, in ordinary speech," she writes, "'having reason' or 'being rational' is not a yes-or-no business like having a hammer."[102] Midgley's point is that it is much more sensible to take rationality to be a continuum of many possible expressions, rather than something that an entity either has or does not have. Midgley continues: "I return now to language. Descartes seems to have thought of it as a separate capacity, parallel to that for general intelligent performance. But perhaps it is only one area among many where intelligence

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[101] Descartes, *Letter to Mersenne, 30 July 1940*, in CSMK 3:149.
[102] Midgley, *Beast and Man*, p. 213.

can be shown."[103] What Midgley is referring to when she writes, "I return now to language," is Descartes's belief that the capacity for linguistic creativity functions as the best method of identifying the capacity to reason (i.e., that it is the best criterion for judging whether some object has an internal soul or *cogito*). Though this claim appears in Descartes's corpus in several places, let us examine a passage in Descartes's *Discourse* where he makes an argument for it.[104] I will quote it at length.

> I made special efforts to show that if any… machines had the organs and outward shape of a monkey or of some other animal that lacks reason, we should have no means of knowing that they did not possess entirely the same nature as these animals; whereas if any such machines bore a resemblance to our bodies and imitated our actions as closely as possible for all practical purposes, we should still have two very certain means of recognizing that they were not real men. The first is that they could never use words, or put together other signs, as we do in order to declare our thoughts to others. For we can certainly conceive of a machine so constructed that it utters words… But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest man can do.[105,106]

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[103] Midgley, *Beast and Man*, p. 214.
[104] See, e.g., Descartes's letter *To the Marquess of Newcastle, 23 November 1646*, in CSMK 3: 302-4.
[105] Descartes, *Discourse*, CSM 1:139-40.
[106] Descartes's second "means" is that animals always make errors when thrust into situations to which their organs are not designed to respond, while humans can avoid making these errors. Because Descartes's

Descartes freely admits that there is no way to distinguish between a monkey and a perfectly-designed mechanism that looks and acts like a monkey. Indeed, this is exactly the point he should be making given that his project begins from a standpoint of systematic doubt. While doubting the existence of external things becomes impossible (in the Sixth Meditation) with the existence of God serving as a guarantee that bodies (perhaps including monkeys and monkey machines) exist, Descartes cannot and does not use the same argument to claim that human beings never err in their empirical judgments. The very last sentence of the *Meditations* makes this position quite clear: "But since the pressure of things to be done does not always allow us to stop and make such a meticulous check, it must be admitted that in this human life we are often liable to make mistakes about particular things, and we must acknowledge the weakness of our nature."[107] In other words, Descartes does not leave the meditator with a God's-eye view — she may still, for instance, mistake a cylindrical tower in the distance for one shaped like a rectangular prism, or a pile of copper and glass for gold and diamonds. This is why a monkey machine and a monkey would appear identical, even to our post-Sixth Meditation meditator. Such a meditator should only have an advantage in judging the identity of monkey-like objects over someone who has not completed the meditations in that she should know her limitations, that she is liable to err about such judgments.

But this is exactly the point that Descartes forgets when he follows up his discussion of monkeys and monkey machines with a discussion of humans and human-

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logic is even more problematic regarding this second "means," and because an argument against Descartes's first "means" would likely *a fortiori* deal with the second, I will exclude discussion of it here.

[107] Descartes, *Meditations*, CSM 2:62.

like automatons. Between humans and automatons, Descartes believes he has a reliable differentia, namely the capacity to use language. Descartes is fully aware that machines can make noises that sound like language, but he asserts that "it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest man can do."

Midgley is correct to criticize Descartes's line of reasoning concerning the use of language as a differentia between humans and automatons (animals). Her argument, reproduced in the first section of the present work, calls on the idea that reason is not an all-or-nothing category but rather a continuum. She notes that to make rationality into an all-or-nothing category is nonsensical, given the implication that in evolutionary history, some strictly non-rational creature must have, at some point, birthed a strictly rational one. Any one thing, Midgley thinks, has a degree or relative quality of reason or rationality, not reason or a rational soul (an *animus*) per *se*.

But in failing to address why *Descartes himself* should not have drawn this conclusion concerning animal minds (or the lack thereof), Midgley errs, and ends up trapped in Descartes's problematic logic. What Descartes (at least in his above letter to Mersenne, and in the passage of the *Discourse*) and Midgley implicitly agree on is that whether or not something is rational is a property that is epistemologically accessible to the *cogito*. Midgley never challenges Descartes's supposition that the capacity to "arrange words" in order to give "appropriately meaningful" answers is subject to empirical observation and scrutiny. Of course Midgley is not operating from the Rationalist framework of Descartes and may care little about epistemological certainty,

so perhaps it would be unfair to critique her simply for holding different assumptions than Descartes. However, if this is the case, then Midgley has critiqued Descartes simply for holding different assumptions than those she holds; to read Midgley this way seems uncharitable to her.

Instead, I read both Midgley and Descartes as making the same error — believing that rationality is empirically discernible, whether it is a continuum or not. Descartes has too quickly moved from the case of the monkey and the monkey machine to the case of the human and the human machine. If, as Descartes claims at the conclusion of the *Meditations*, humans are not fit to make whatever judgments they feel like from empirical observations, then they are not justified in judging that any object does or does not have the capacity to reason simply from the utterances that object may or may not make. To judge the utterances or movements of an object, non-human animal, or human to be "appropriately meaningful answers" implies that the judgment was made circularly, that the object was already judged to have the capacity to reason. Unless Descartes could draw a clear distinction between an aphasic human being and a super-complex robot programmed to adapt to the speech-patterns of the surrounding population using only empirically observable traits of each, he lacks the ground to discern automatons from rational beings with his appeal to language. The reason I contend that Midgley has made the same mistake as Descartes is because, like Descartes, she seems to believe that rationality is (at least) a partially empirically demonstrable trait. How else could she speak of "degrees" of rationality?[108] If Midgley thinks there is such a thing as more or

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[108] Midgley, *Beast and Man*, p. 211.

less rationality, she must be using empirical criteria to discern an *in principle* epistemically inaccessible quality. And if this is correct, she, like Descartes, would still be thwarted by being asked to distinguish between an aphasic human and a complex, speaking robot.

The skepticism with which Descartes begins *Meditations* is thus much more rigid than he treats it in his doctrine on animal machines. I contend that he is not only unfit to distinguish between animals and robots, but also unfit to distinguish between human beings and robots. Furthermore, if he believes he is incapable of discerning that a human has a *cogito* while a robot does not, he should be completely unable to determine whether anything (except he himself, the meditator) has a rational, thinking soul. How would Descartes recognize a *cogito* behind the responses of a human who does not speak any of the languages Descartes can understand? How would Descartes deduce that the twitching of leaves in the breeze is not intentionally sending some message to him, or responding to his questions? I do not aim just to expose Descartes's fallacious usage of linguistic creativity as a criterion for rationality. Perhaps a rock can speak but simply has nothing to say to she who questions it. Perhaps my kindergarten teacher was a complex robot with programming so dense and mysterious to me that I simply could not tell it was only instinctively responding to my every movement and utterance. That Descartes lacks epistemic access to the answers of these questions should end up being his system's strength from the perspective of animal ethicists, not a fault. It opens his system to the possibility that any and all extended objects (bodies) might think for themselves, might be more than merely the collisions of particles, but that none definitively are. In fact, this position is similar to the pan-psychism that White attributes to Francis of Assisi.

If Descartes were to have stuck to the stringent epistemological limitations he established for himself in the First Meditation, it would grant his system the flexibility to treat animals, plants, etc., as more than mere automatons. Let us turn back to a passage from the Second Meditation:

> But then if I look out of the window and see men crossing the square, as I just happen to have done, I normally say that I see the men themselves, just as I say that I see the wax. Yet do I see any more than hats and coats which could conceal automatons? I *judge* that they are men. And so something which I thought I was seeing with my eyes is in fact grasped solely by the faculty of judgment which is in my mind.[109]

Here Descartes recognizes that the process by which he judges figures that appear as humans *to be humans* is the same process by which he judges the piece of was to exist regardless of its accidents. This process is a mental process, one in which he (the *cogito*) participates. The upshot is that if a Cartesian must "*judge* that they [the moving hats and coats] are men," he is also capable of judging that an animal has consciousness. What appears to the subject as a body (or a brute) is always capable of concealing something more, something that the mind may not yet judge to be there. Descartes's system, then, even if he did not recognize it, perpetually leaves an openness at the edges of the *cogito*'s knowledge. When God, the ground of all existence independent of the *cogito*, is believed to exist, the world becomes transformed. The meditator's old unjustified belief that animals are conscious subjects is transformed, first into doubt that such other bodies even

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[109] Descartes, *Meditations*, CSM 2:21.

exist, and second into the belief that all bodies contain the possibility for something (formally speaking) more than what they appear to be.[110]

Substance$_x$ dualism

The other important problematic Cartesian doctrine I will address in this part of the present work is Descartes's substance dualism (between *res cogitans* and *res extensa*). As we saw in the first section, numerous ecological and animal ethicists have criticized Descartes's substance dualism. It would be a daunting (though perhaps not impossible) task indeed to read the historical Descartes as someone trying to advocate a position other than substance dualism. Rather than make that (strong) claim, I will use my reading of the *Meditations* to argue that Descartes's dualism is a less foundational feature of his metaphysic than the circular *cogito*-God relationship I have previously described. Though Descartes refers to the real distinction between *res cogitans* and *res extensa* as a dualism, I will contend that this distinction is merely a hazily-conceived way of articulating the relationship between the *cogito* and objective existence (God).

Descartes makes his argument for substance dualism near the beginning of the Sixth Meditation. He writes,

> First, I know that everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my

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[110] By serving as a barrier that knowledge cannot fully penetrate, Descartes' extended substance and its rigid laws of physics (cause and effect) do not "eliminate" "all innate spiritual elements… from nature," as Ruether, for instance, suggested in an argument I reproduced in the first section of the present work. On the contrary, that the meditator's extended surroundings are automatic but that her empirically grounded judgments cannot penetrate beyond this realm of mechanization makes it possible that (rational) souls (*animi*) exist everywhere in nature.

> understanding of it. Hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct, since they are capable of being separated, at least by God.[111]

Descartes's argument seems to be that because the *cogito* can be understood clearly and distinctly before the meditator even knows that bodies exist, the two must be modes that inhere in different substances. This argument calls on two technical ontological distinctions not made explicit in the *Meditations*. The first is that any one substance depends on nothing other than itself for its existence, according to Article 51 of Descartes's *Principles of Philosophy* (1644).[112] The second, to which philosopher Marleen Rozemond has drawn significant attention,[113] is that "each substance has one principal property which constitutes its nature and essence…," which is called its attribute, and in terms of which its instantiations are modes.[114] Of the two substances Descartes wants to distinguish, the principal attribute of one is extension, and the principle attribute of the other is thought. Because of the second technical ontological distinction, which he must be committed to but does make explicit in the *Meditations*, Descartes has precluded (from the start) the possibility of there being a single substance that is both thinking and extended. So when Descartes argues in the above passage that clearly and distinctly understanding one thing (he is referring to the *cogito*) without clearly and distinctly understand another (his body, or any body) means that those two

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[111] Descartes, *Meditations*, CSM 2:54
[112] Descartes, *Principles of Philosophy*, Article 51, CSM 1:210.
[113] Marleen Rozemond, "Descartes's Case for Dualism," *History of Philosophy* 33 (1995): 29-63.
[114] Descartes, *Principles*, Article 53, CSM 1:210.

things must not depend on one another (i.e., God could have created either of them without the other, and they must both be separate substances), he does not account for the possibility that his *cogito* could be a mode of more than one substance at the same time. Nor does he account for the possibility that even if the *cogito* is only a mode of thought, that there is a corresponding mode of extension that is also identical to it (a body, such as a brain). These are the sorts of challenges that Callicott, Midgley, Plumwood, and Ruether would raise (not to mention Spinoza).

Though either of these possibilities is more attractive to the contemporary reader, what reasons did Descartes have for advocating his alternative position (substance dualism)? I propose that the answer to this question lies in the fact that Descartes has two distinct definitions of substance (which until now, I have allowed to remain obscure to my reader). In Article 51 of the *Principles*, Descartes defines *substance* in two competing ways: "By *substance* we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God."[115] The first important implication of Article 51 is that unless God is identical to *both* the extended substance and thinking substances, neither of these two latter substances is properly speaking a substance under Descartes's technical definition. Descartes continues: "Hence the term 'substance' does not apply *univocally*… to God and to other things; that is, there is no distinctly intelligible meaning of the term which is

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[115] Descartes, *Principles*, Article 51, CSM 1:210.

common to God and his creatures."[116] He then adds, in the second (French) edition of the text, "In the case of created things, some are of such a nature that they cannot exist without other things, while some need only the ordinary concurrence of God in order to exist." The second implication of Article 51 is that when Descartes and his critics use the term *substance* to distinguish between minds and bodies, between *res cogitans* and *res extensa*, they do not mean to distinguish between two things that exist completely independently of anything, but rather only independently of everything *but God*. Following Descartes's logic (and convention among contemporary philosophers), I will refer to the one proper substance (God) as "substance$_1$" and the secondary substances (thinking and extended substances) as "substances$_2$."

Calling on the distinction between these two types of substance, it is now possible for me to show that Descartes has failed to argue successfully for a substance dualism, properly speaking. In fact, all that I need to point out is that Descartes grounds the distinction between his two substances$_2$ upon the *single* circular relationship between the *cogito* and God (the only substance$_1$), which, on the interpretation I articulated in the previous section, lies at the deepest level of his thought. Why Descartes puts so much emphasis on the real distinction between the two substances$_2$ is unclear. He cannot motivate an argument that neither is *a priori* a necessary truth — i.e., that neither is part of the essence of God — except perhaps through recourse to his questionable (axiomatic) assertion in the *Principles* that all substances have only one attribute. That ecological and animal ethicists so frequently draw all of the problematic conclusions of Cartesian

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[116] Descartes, *Principles*, ibid.

philosophy back to the doctrine of substance$_2$ dualism without indicating that the substances$_2$ are not substances properly speaking is suggestive that they never bothered doubting with Descartes to begin with.

Callicott's theory of intrinsic natural value and Cartesian epistemology: a conclusion

If we recall environmental philosopher J. Baird Callicott's moral system and his attempt to derive from quantum physics (and other sciences) a theory of natural value that transcends subjectivity and objectivity, we will remember that he believes such a metaethic is incommensurable with the Cartesian framework: "From the point of view of Modern philosophy, value is *conferred on* or *ascribed to* an 'object' by an intentional act of a subject." For Callicott, the Modern or Cartesian subject, in being unable to escape from her *cogito*, finds nothing but the values she herself has imputed to objects. While Callicott finds this theory of intrinsic value to be functional given that Cartesian subjects can impute objects with non-instrumental value, it does risk falling into anthropocentrism. Why?: Because "If there were no valuing subjects, nothing would be valuable." Callicott fears that this metaethic, the theory of *subjective* intrinsic value, depends too much on human beings and their own human-centered desires. According to Callicott, for a truly ecocentric ethic, we must turn our backs to Modern philosophy and our faces to postModernism, where, if lucky, we will be able to forge a value-system free of the Cartesian *cogito*.

While Callicott is partially correct to argue that Descartes can account solely for *subjective* intrinsic value, the truth of this claim only goes so far as the extent of the first two Meditations. As I have argued in my interpretation of the *Meditations*, the *cogito*

cannot think anything it does not think — in this sense, all objects of thought are contained within the *cogito*. But this is not the same as saying either that reality stops at the bounds of the *cogito*, or that the *cogito* cannot think (or value) something *other than itself*, something *objective*. Callicott has too readily assumed that the distinction with which Descartes begins the *Meditations*, the distinction between thinking subject and object of thought, is a dualism like the one between *res cogitans* and *res extensa*. If I have been successful in arguing that there is a complex and dialectical relationship between the subject and object rather than a simple dualism, it means that Callicott has erred throughout his corpus whenever he conflates the two types of distinctions.

I do not aim to point out this conflation for its own sake — instead, I hope to show that Callicott ought to do exactly the opposite of what his (cursory, or perhaps *doubtful*) reading of Descartes suggests. In order to develop and complete his theory of intrinsic natural value, Callicott should put his back to quantum physics and his face to Descartes. What Callicott asks of his theory of intrinsic value is that it not allow value to depend *only* on a valuing subject. The reason he turns to quantum physics is because he believes that it has specific metaphysical and epistemological implications — that in quantum physics, "On the one hand, the knowing subject is, so to speak, physicalized, objectified," and "on the other hand, the known object is subjectivized—since a necessarily physical act of observation… changes the observed system." Callicott's hope is that, with this primordial relation between subject and object, finding value in nature will be like "a potentiality to be actualized by a situated… valuer." This value, genuinely intrinsic value as long as it is not instrumental, is admittedly "not wholly objective"; but

for Callicott, that is the theory's strength.[117] This type of value hovers between the categories of subjective and objective — or it transcends both — as long as observation (and epistemology) is (are) participatory in the constitution of the world. What Callicott needs is just such an epistemology — a relational epistemology.

But deriving such an epistemology from mere generalized observations (quantum physics) is dangerous. Callicott notes that in quantum physics, the "position and velocity" of particles are subjectively determined.[118] While Callicott's "postModern" metaphysics is commensurable with the experimental results that constitute the established principles of quantum theory, these principles do not themselves comprise anything metaphysical. Is there not another source to which Callicott could turn?

It is no surprise that I believe Callicott has neglected to consider the epistemological movement in Descartes' *Meditations*. On my reading, Descartes's thought is grounded on a paradoxical relationship between a thinking subject (*cogito*) and the ground of all possible existing objects (God). All thought is thought *by a subject*, and all objective existence is grounded in God. But the relationship between the two principles (that I think, that God exists) is complicated by the recognition that each entails and requires the other. No thinking can be done outside of God (the primordial substance$_1$), and there is no certain existence outside of the *cogito*. Because of the dialectical relationship between the two, we are not limited to forming merely *subjective*, if functional, theories of intrinsic value. The act of thinking that constitutes the *cogito*

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[117] Callicott, "Intrinsic Value in Nature," p. 260.
[118] Callicott, "Intrinsic Value in Nature," ibid.

participates in the objective existence of God, and all the extended objects (plants, trees, animals, etc.) this God makes possible — subjectively. In other words, through thinking, objects that resist thought (i.e., existing objects) are determined. In turn, the objectively existing God anchors (and perhaps is) the totality of existence as such, including the thinking subject.

This Cartesian relational epistemology is almost identical to the one Callicott hopes to derive from his quantum physics-inspired worldview. For Descartes, something that was once doubted is recovered through the *cogito*'s meditation. For Callicott, a potentiality is actualized through the valuer's participation. It would not be too difficult for Callicott to begin at Descartes's beginning, by doubting. Of course it might seem counterintuitive to frame Descartes' system as *ecocentric*, but what is ecocentrism, aside from the idea that existence is a singular whole comprised of related, interdependent parts? Descartes certainly believes this much, at least on my account. As long as Callicott were to start from a subject-object distinction (but not a dualism), and were to assent only to what he knows to be true, his axiology would end up coherent. After all, the Cartesian God is not the classical conception of a monotheistic deity. It is a singular being only insomuch as an ecosystem is a being — Descartes's concept of God and Callicott's notion of ecology are not so metaphysically distinct. Should Callicott be willing to accept the possibility that ontology and ethics are both grounded upon the paradoxical relationship between the thinking (knowing) subject and objective existence (and he obviously is, given his attraction to quantum physics), I see few obstacles in making Descartes' system appealing to him — as long as Callicott is willing to doubt *with* Descartes before doubting Descartes.

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