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Anthropocentrism as Environmental Ethic

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ANTHROPOCENTRISM AS ENVIRONMENTAL ETHIC

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts and Sciences
at the University of Kentucky

By
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ABSTRACT OF DISSERTATION

ANTHROPOCENTRISM AS ENVIRONMENTAL ETHIC

Ever since the environment and nonhumanity became major ethical topics, human-centered worldviews have been blamed for all that is morally wrong about our dealings with nature. Those who consider themselves nonanthropocentrists typically assume that the West's anthropocentric axiologies and ontologies underlie all of the environmental degradations associated with our species. On the other hand, a handful of environmental philosophers argue that anthropocentrism is perfectly acceptable as a foundation for environmental ethics. According to Bryan Norton's convergence hypothesis, "If reasonably interpreted and translated into appropriate policies, a nonanthropocentric ethic will advocate the same [environmental] policies as a suitably broad and long-sighted anthropocentrism" (Norton 2004:11). Norton notes that although adherents to either *ism* may disagree about the relative importance of the various reasons they have for advocating such policies, they nevertheless share an equal commitment to protecting the environment. Because any form of anthropocentrism must fundamentally favor humanity over nonhumanity, nonanthropocentrists are nevertheless concerned that such favoritism is "nothing more than the expression of an irrational bias" (Taylor 1981:215). They reason that only a nonanthropocentric ethic can guarantee that policies do not arbitrarily favor humans when their interests conflict with those of nonhumans. I argue that critics of convergence fail to appreciate that Norton's hypothesis is limited to ideologies that he deems "reasonable" and "suitably broad and long-sighted," or else they misapprehend what these terms imply. When it comes to ethics, nonanthropocentrists and anthropocentrists alike vary along a continuum according to whether their overriding intuitions are more aligned with individualistic or collectivistic axiologies and their associated timescales. The most unreasonable, narrow, and short-sighted ideologies are those that are the most individualistic. It is at the collective end of the continuum that Norton's proposed convergence takes place. I defend a version of anthropocentrism that I term *ecological anthropocentrism*.

KEYWORDS: Anthropocentrism, Nonanthropocentrism, Convergence Hypothesis, Bryan Norton, Axiom of Future Value, J. Baird Callicott

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Preface

The first time that I encountered the term *anthropocentrism* in a philosophical text, it was used pejoratively to indicate an irresponsible set of attitudes and behaviors toward the environment and nonhumanity in general. Of course, this was no mere coincidence. Ever since animal philosophy and environmental philosophy emerged as distinct disciplines, their founders have almost universally categorized anthropocentrism as a morally reprehensible worldview along the same lines as classism, racism, sexism, xenophobia, and the like. *Nonanthropocentrists* claim that, because our intellectual traditions have been unwaveringly human-centered, orthodox ethical theories have limited ascriptions of moral significance (intrinsic or inherent value) to human beings. They argue that as a result, nonhuman aspects of the world have largely been appraised only in terms of their instrumental value to humans. Consequently, nonanthropocentrists hold, the anthropocentric, or human-centered, focus of traditional ethical frameworks ultimately justifies the exploitation of nonhumanity and is thus primarily to blame for enabling the ecological predicament that human societies have created. On the other hand, nonanthropocentrists claim, if nonhuman aspects of the world were accorded the sort of intrinsic value recognized in humans, anthropogenic ecological degradations would no longer be deemed justifiable. Nonanthropocentrists assume that, just as widespread adoption of the anthropocentric worldview (that humans or persons are intrinsically valuable) has (allegedly) resulted in the abolition of sexism, racism, and so on, the ecologically irresponsible exploitation of nature would be overcome by widespread adoption of nonanthropocentrism.

After being exposed to Bryan Norton's convergence hypothesis, it struck me that so-called nonanthropocentrists do not merely want to 'save' nature for its own sake but also for the sake of humanity. According to the convergence hypothesis, if an advocate of anthropocentrism "takes the full range of human values—present and future—into account, [s/he] will choose a set of policies that can also be accepted by an advocate of a consistent and reasonable nonanthropocentrism" (Norton 1997:87). In other words, an anthropocentric environmental ethic is not a contradiction in terms; it is possible to justify ecologically responsible policies for strictly human-centered reasons.

If adding the idea of intrinsic value to that of enlightened human interest creates no difference in mandated behaviors, and indicates no real changes in behavior from following "broad anthropocentrism," then. . . the "metaphysical" idea that nature has "intrinsic value" is shown to have at best only ideological and rhetorical use (Norton 2009:246).

Nonanthropocentrists may be largely 'preaching to the choir' since their rhetoric most likely appeals to those who already share their intuitions that nonhuman entities are valuable *in* or *for* themselves. As Norton argues, due to the severity of the ecological predicament and given the fact that politicians and humans at large are more easily swayed by human-favoring arguments, it seems much more practical for environmentalists to utilize anthropocentrism rather than to reject it. The dissertation that follows is my attempt to demonstrate that an ecological form of anthropocentrism, such as that defended by Norton, provides a strong foundation for a rationally defensible environmental ethic. I also aim to demonstrate that advocates of ecological anthropocentrism converge with advocates of "consistent and reasonable"

nonanthropocentrism on the general sorts of environmental policies they both endorse and reject.

In Chapter One, I provide a general introduction to the dissertation, discuss some basic aspects of the ecological predicament that human societies have created, and question whether environmentalists should regret humanity's existence because of the atrocities that human societies have committed against nature. Since the current anthropogenic mass extinction event is among the worst ecological calamities to affect Earth's biosphere over the past 600 million years, it certainly seems that environmentalists have cause to experience immense regret. I adapt an argument made by Saul Smilansky to question whether environmentalists, if forced to choose, would be willing to 'restore' all anthropogenically extirpated species to their 'natural' state if such a restoration could only be achieved by removing *Homo sapiens* from existence. I demonstrate that in spite of their sometimes overtly misanthropic rhetoric, nonanthropocentrists converge with anthropocentrists in favoring humanity's existence. This demonstration provides support for Norton's convergence hypothesis and establishes the basic thesis that "reasonable" nonanthropocentrists at least implicitly subscribe to what Norton calls the Axiom of Future Value. According to this axiom, a world with humans in it is preferable to one in which they are absent, and we have a duty therefore to protect our species' prospects for evolutionary success.

In Chapter Two, I provide further support for Norton's convergence hypothesis and address some common arguments leveled against anthropocentrism. I point out that Norton's critics tend to ignore the fact that his hypothesis only applies to long-

sighted, nonindividualistic, and “reasonable” varieties of anthropocentrism and nonanthropocentrism as opposed to varieties that are short-sighted, individualistic, and radical. Nonanthropocentrists’ arguments against anthropocentrism (such for example, that it involves questionable ontological and axiological assumptions) simply do not apply to the ecological anthropocentrism defended by Norton. For, ecological anthropocentrists do not assume that humans are the center of the universe or that the purpose of nonhumanity’s existence is to satisfy human preferences or interests. Nor do ecological anthropocentrists rely on nonanthropocentrists’ questionable claims regarding the practical effects of changing how humans ascribe intrinsic value. Because the widely accepted idea that humans are intrinsically valuable has not universally improved humanity’s lot, it seems naïve to assume that broadening ascriptions of intrinsic value to include nonhumanity will fix humanity’s ecological predicament. I also question the coherence of a genuinely nonanthropocentric view since if such a view were truly free of human-favoring biases, it would not likely lead one to formulate priority principles that adjudicate in favor of humans when their interests or preferences conflict with those of nonhumans. I conclude the chapter by arguing that Smilansky’s form of regret, coupled with a not-so-ignorant, intertemporal Rawlsian veil, can be used to determine what sorts of environmental policies rational persons of possible futures would condemn or condone.

In Chapter Three, I argue in support of the moral relevance of a geologic spatiotemporal scale since such a scale is required to fully appreciate a species’ evolutionary success. I claim that environmentalists’ explicit or implicit adherence to

the Axiom of Future Value entails that they must find a geologic scale morally relevant. According to this axiom it is the duty of extant humans to do what they can to help ensure that our species and its evolutionary successors go on existing indefinitely. A mammalian species such as *Homo sapiens* should be expected to persist for millions of years, yet anatomically modern humans have only been around for a fraction of that time. During humanity's geologically brief tenure on Earth, humans have managed to seriously degrade the resource base that could otherwise have promoted their geologically long-term existence. If humans are to go on existing for the millions of years that could be natural for them, current generations must seriously consider the long-term effects of their collective actions on our planet's natural resources and on future humans. Accordingly, I argue that individuals who engage in collective actions such as the mass consumption of fossil fuels must recognize their complicity in effecting any harms that result. I also argue by analogy that if we are morally obligated to help alleviate the suffering of fellow humans regardless of their spatial proximity to us, as Peter Singer and James Rachels insist, we are likewise obligated to do what we can for the good of humans regardless of their temporal proximity to us. I close the chapter with a discussion of extinction. By utilizing a geologic scale, scientists have determined that species are disappearing at rates that are exponentially higher than the natural, background rate. Indeed, the current mass extinction event is disturbingly similar to the five previous major mass extinction events of the past 600 million years. I argue that while considering extinctions on a geologic scale would lead a holistic rationalist to exhibit stoic indifference, those who subscribe to the Axiom of Future Value will instead

be compelled to reconsider the ecological legacy that is being bestowed on the future by collective human actions.

Chapter One: Should Environmentalists Regret that Humans Exist?

1.1 Apocalypse Now?

Over the past several millennia, human populations have dispersed so widely and grown to such an extent that they have come to alter the evolutionary trajectory of almost every form of life on the planet. Although Earth's biota and ecosystems are always evolving, few revisions have been as geologically abrupt or extensive as those brought on by the tremendous selection pressures exerted by our species over the past 50,000 to 70,000 years. All around the globe, species are disappearing and habitats are being altered at rates that are rare even on a billion-year timescale. Prior to *Homo sapiens'* diaspora out of Africa and Eurasia, Earth's most extensive biospheric upheavals were mainly due to abiotic factors such as cosmic collisions and prolonged volcanic activity. In the past 600 million years, there have been only five mass extinction events that were severe enough to reduce the number of species by half, the last of which occurred 65 million years ago. By studying the geologic record of the late Pleistocene, paleontologists have noted that humanity's sudden range expansion sharply coincides with the mass extinction of megafauna in all areas invaded by humans. Scientists also note that the extinction pulse that began in the Pleistocene has continued to accelerate in modern times. In fact, the anthropogenic mass extinction event is now recognized to be disturbingly similar to the 'big five' of the geologic past.

Current and projected species extinction rates exceed geologically normal background rates by several orders of magnitude, indicating that we face an extinction episode equivalent to mass extinctions of the paleontological past (Purvis et al. 2000:328).

As with past mass extinctions, the impending global crisis has many biotic losers being replaced by a few increasingly widespread winners. Previous mass extinctions eliminated over 50% of all species on earth and this appears to be the likely outcome of current trends with over 50% of species in most groups in decline. Even if these species (losers) do not become completely extinct, they will probably be reduced to tiny fragments of undisturbed habitat and become virtually invisible components of the biosphere (McKinney and Lockwood 1999:452).

Problems associated with exponential increases in human populations, particularly over the past couple of centuries and given humanity's need to exploit ever more habitats in order to obtain the resources required to satisfy unsustainable, culturally-ingrained consumption practices, have been exacerbated by both short-sighted technological applications and the globalization of trade. Ecologists warn that many common practices of human societies are responsible for a host of environmental problems, such as global warming, the widespread dispersal of invasive species, abnormally high rates of extinction and biotic homogenization, and disruptions to vital ecosystem processes. While most of these problems already pose serious threats to the livelihood of current human populations, particularly that of the underprivileged, they will only become more acute for future generations. Needless to say, Earth's nonhuman populations will be even more disproportionately affected in the future by the anthropogenic restructuring of our planet's biotic and abiotic composition. Indeed, an abnormally high rate of extinction will likely continue, and many survivors among the species that remain will face increasingly stiff competition for a shrinking resource base.

Environmental philosophy emerged due to the growing awareness among academicians of the ecological predicament, with most representatives labeling themselves as nonanthropocentrists. Nonanthropocentrists mainly distinguish

themselves from other philosophers in terms of what aspects of the world they consider to have intrinsic value or inherent worth. As stated by J. Baird Callicott:

An anthropocentric value theory (or axiology), by common consensus, confers intrinsic value on human beings and regards all other things, including other forms of life, as being only instrumentally valuable, i.e., valuable only to the extent that they are means or instruments which may serve human beings. A non-anthropocentric value theory (or axiology), on the other hand, would confer intrinsic value on some non-human beings (Callicott 1984:299).

Especially in the subjectivist version that I endorse, the concept of intrinsic value of nature, like the concept of human rights, designates less a substantive thing than a pragmatic limit on policies driven by aggregate utility. Practically by definition, the *adjective* 'intrinsic' entails that the character or property it modifies exists objectively in the entity to which it is attributed. Indeed, often the adjective 'intrinsic' means that the character or property it modifies is the very essence of the entity to which it is attributed. . . . In environmental philosophy, however, 'intrinsic value' has also been consistently implicitly defined, *via negativa*, as the antonym of 'instrumental value'. What value remains – if any does – after all something's instrumental value has been accounted for is its intrinsic value. . . . Thus to value something intrinsically – as we shift from the adjectival-objective to the adverbial-subjective form – is to value something for itself, as an end-in-itself (to reinvoke the Kantian mode of expression), not merely as a means to our own ends, not merely as an instrument. From this perspective, there is no objective property in entities to which the noun 'value' corresponds. Rather we subjects value objects in one or both of at least two ways – instrumentally or intrinsically – between which there is no middle term (Callicott 2002:16).

Nonanthropocentrists do not always agree about how to confer such value, however. Ecocentrists such as Callicott construe the value of larger collectives like species, ecosystems, and the biosphere to override the value of individual organisms, whereas biocentrists such as Paul Taylor believe that each (wild) living thing has equal inherent worth that moral agents have a duty to respect. Despite such insurmountable differences, nonanthropocentrists universally agree with Taylor's assessment that

modernity's post-Copernican, post-Darwinian revision of humanity's place in nature entails an equally sweeping revision of human values.

The rejection of the idea of human superiority and, more broadly, of the idea that any species is inherently superior (or inferior) to any other, entails its positive counterpart: the principle of species-impartiality. This is the principle that every species counts as having the same value in the sense that, regardless of what species a living thing belongs to, it is deemed to be *prima facie* deserving of equal concern and consideration on the part of moral agents. Its good is judged to be worthy of being preserved and protected as an end in itself and for the sake of the entity whose good it is. Subscribing to the principle of species-impartiality, we now see, means regarding every entity that has a good of its own as possessing inherent worth—the *same* inherent worth, since none is superior to another (Taylor 2011:155).

Nonanthropocentrists typically insist that foreseeable ecological dystopias can be averted but only if our societies replace their anthropocentric biases with the view that nonhumanity's value is equal to that of humans. As I explain in Chapter Two, nonanthropocentrists argue that anthropocentric axiologies and ontologies make problematic assumptions that facilitate the environmental degradations perpetuated by our species. The immediate appeal of their critique is understandable since traditional, pre-Darwinian worldviews in the West set up a bifurcation between humans and the rest of our planet's life forms. Because our species' most extensive ecological degradations—which have mainly occurred since the industrial revolution—have been inordinately affected by consumers in societies whose intellectual founders took humans to be the measure or measurers of all things, nonanthropocentrists assume that ecological degradation is an inevitable side effect of a worldview that puts the interests of humans first. According to Callicott, "The concept of intrinsic value in nature functions politically much like the concept of human rights" (Callicott 2002:14). The

presumption is that if humans and nonhumans were recognized to be members of the same moral community, environmental policies would equally acknowledge and protect their rights to exist. Consequently, speciesism, anthropogenic mass extinction, habitat loss, and the like would come to an end—just as tribalism, nationalism, racism, and sexism have (allegedly) been overcome. I argue in Chapter Two that nonanthropocentrists such as Callicott seem to have unrealistic expectations regarding the practical effects of more widespread attributions of intrinsic value. If the anthropocentric assumption that humans are intrinsically valuable has indeed been accepted by most people, this has failed to produce an equally widespread adoption of policies that universally protect human rights. Massive inequalities between the poor and the wealthy, as well as various forms of discrimination, continue to exist within and among human societies regardless of the presumption that within many of these societies humans are considered to have intrinsic value. Since the intrinsic-value-of-humanity arguments expressed by legions of moral philosophers over the past couple of centuries have not yet achieved such philosophers' desired results, we should not be so optimistic concerning the desired outcome of the intrinsic-value-of-nonhumanity arguments of nonanthropocentrists even if they are expressed over a similar expanse of time. Indeed, many environmentalists claim that human societies are running out of time. According to Craig Dilworth:

It is most unlikely that any of the radical changes to society and the economy proposed by environmentalists – especially changes in philosophies and worldviews – will be adopted in time. Consequently human civilisation – primarily Western techno-industrial urban society – will self-destruct, producing massive environmental damage, social chaos and megadeath (Dilworth 2010:453–454).

In spite of such pessimism, Bryan Norton argues that since anthropocentrism has the upper hand in influencing policy decisions, it would be more reasonable and effective for environmentalists to use anthropocentric arguments to convince politicians to adopt environmentally sound policies that will benefit humans and nonhumans alike.

To those who are uncommitted to environmentalism (and this includes many important decision makers), appeals to intrinsic values in nature and to rights of nonhumans appear “soft,” “subjective,” and “speculative.” We can accept this fact of political life without agreeing with it. Whatever the answer to the intellectual question of whether nonhuman species have intrinsic value, . . . human-oriented reasons carry more weight in current policy debates. Given the urgency of environmental degradation and the irreversibility of losses in biodiversity, it would be equivalent to fiddling while Rome burns to delay action until the achievement of a positive social consensus attributing rights and intrinsic value to nonhuman species (Norton 2004:470).

Furthermore, Norton claims, nonanthropocentrists need not demand that adequate environmental policies recognize intrinsic values in nature since the full range of values expressed by humans is much more pluralistic.

The question is not one of determining which objects ‘have’ some reified type of value, but rather to determine whether good reasons can be given for invoking a particular value in a particular situation. This line of reasoning apparently opens up the possibility of reconciling the two sides in the debate over ‘intrinsic’ versus ‘instrumental’ value in nature – it is possible to include both instrumental and noninstrumental reasons for preferring one set of policies to another, without asserting that ‘intrinsic’ value exists independently of human, valuing actions. If we reject this sharp dichotomy between instrumental and intrinsic values and the associated classification of natural objects as instruments or as moral beings, a pluralist and integrative position emerges as a possibility: there are many ways in which humans value nature and these ways range along a continuum from entirely self-directed and consumptive uses, and include also human spiritual values and aesthetic values, and also noninstrumental valuations. If one forgoes a sharp, definitional distinction between these two, opposed types of valuing, the moral task of sorting entities into those that have, and those that lack, this special

feature of 'noninstrumental' value becomes a nonproblem (Norton 2000:1038).

1.2 Are Human-Centered Worldviews Really to Blame for Our Ecological Predicament?

Contrary to the claims of nonanthropocentrists, a handful of environmental philosophers argue that our ecological predicament cannot be attributed to anthropocentrism itself but instead to a "limited and short-term vision of what constitutes human well-being" (Grey 1993:468). According to Bryan Norton's convergence hypothesis, "If reasonably interpreted and translated into appropriate policies, a nonanthropocentric ethic will advocate the same [environmental] policies as a suitably broad and long-sighted anthropocentrism" (Norton 2004:11).

Environmentalists who endorse a variety of values will nevertheless tend to see environmental problems in a similar way and will pursue common-denominator goals, even though they might explain and justify those goals in quite different evaluative language, because the larger context of environmental management—the context in which all values are pursued—will be understood as the larger ecological context. Environmentalists have been able to fashion a working consensus for addressing environmental problems on an ecological basis precisely because they understand the world as the context of multiple values. This understanding unites them behind goals essential to protect a wide variety of values, however expressed, but the impetus toward the consensus is scientific. Environmentalists are being driven together by their commitment to ecological contextualism, which implies that all human values depend upon a healthy context (Norton 1991:197).

Norton and other ecological anthropocentrists claim that currently foreseeable ecological dystopias can be averted with the adoption of a form of anthropocentrism that is worthy of rational support. In their eyes, it is not the case that we have been *too* human-centered but instead, that we have not been human-centered *enough*. Nonanthropocentrists who reject Norton's convergence hypothesis, they insist, must

provide an adequate response to the following question: Assuming that anthropocentrism is an ideology that favors satisfying the interests, preferences, and values of collective humanity and not merely those of individual humans, why have societies under its sway permitted policies that are foreseeably detrimental to the long-term satisfaction of basic and vital human interests, preferences, and values? After all, those who directly benefit from ecological irresponsibility and degradation tend to represent a very small portion of humanity. Unless anthropocentrism is necessarily equated with a form of egoism that condones policies favoring satisfaction of the short-term interests, preferences, and values of the few at the expense of the long-term interests, preferences, and values of the many, it is problematic to conclude that a human-centered worldview is inherently devastating to the environment. As Tim Hayward points out:

Proposals for the 'rejection' of anthropocentrism are unhelpful because they cloud the real problem they think to address. The problem has to do with a lack of concern with nonhumans but the term anthropocentrism can all too plausibly be understood as meaning an excessive concern with humans. The latter, however, is not the problem at all. On the contrary, a cursory glance around the world would confirm that humans show a lamentable lack of interest in the wellbeing of other humans. Moreover, even when it is not other humans whose interests are being harmed, but other species or the environment, it would generally be implausible to suggest that those doing the harm are being 'human-centred'. To see this, one only has to consider some typical practices which are appropriately criticised. . . . In the case of hunting a species to extinction, this is not helpfully or appropriately seen as 'anthropocentrism' since it typically involves one group of humans who are actually condemned by (probably a majority of) other humans who see the practice not as serving human interests in general, but the interests of one quite narrowly-defined group, such as poachers or whalers. A similar point can be made regarding the destruction of the forest – for those who derive economic benefit from the destruction oppose not only the human interests of indigenous peoples whose environment is thereby destroyed,

but also the interests of all humans who depend on the oxygen such forests produce (Hayward 1997:57—58).

If human-centered worldviews are to blame for humanity's ecological predicament, they must differ significantly from the "sufficiently broad and long-sighted" anthropocentrism to which Norton's convergence hypothesis applies. Accordingly, nonanthropocentrists should focus their critiques on those particular human-favoring worldviews that can be legitimately blamed for humanity's detrimental impacts on our planet's biosphere. It is not anthropocentrism as such that must be rejected but its problematic forms, in particular, those that are egoistic or otherwise narrowly focused on individuals and on the limited scales of space and time that are meaningful to individuals. Nonanthropocentrists and anthropocentrists alike vary along a continuum according to whether their overriding intuitions are more aligned with individualistic or collectivistic axiologies and their associated timescales. As Norton explains:

Theoreticians differ wildly in what intrinsic value is, what it means to have it, and what entities in fact have it. Similarly, anthropocentrists differ regarding how far into the future our obligations to future people extend. So there are really several "families" of both anthropocentric and nonanthropocentric theories of environmental value (Norton 2009:239).

The ideologies that Norton would construe to be the most unreasonable, narrow, and short-sighted are typically those that are also the most individualistic, such as Taylor's egalitarian biocentrism. Coincidentally, defenders of "reasonably interpreted" forms of nonanthropocentrism, such as Callicott, reject highly individualistic forms of nonanthropocentrism for similar reasons. As I will demonstrate later, it is at the collective end of the continuum that Norton's proposed convergence takes place.

1.3 Regarding Smilanskyan Regret – Should We Be Sorry that We Exist?

One of the distinguishing features of environmental ethics is an expansion of the spatiotemporal limits of current humans' moral obligations to fellow humans and other entities. Whether they are anthropocentrists or nonanthropocentrists, environmental philosophers typically insist that we have stronger moral obligations to protect the interests, preferences, or values of Earth's future life forms than are called for by traditional ethical frameworks. As Norton states it, "Standard contemporary ethical theories, at least in the United States and Western Europe are essentially individualistic. . . . The behavioral prohibitions embodied in them derive from the principle that actions ought not to harm other individuals unjustifiably" (Norton 1984:139). Because of their individualistic focus, traditional ethics do not require agents to consider the effects of their actions beyond spatiotemporal scales that are meaningful to individuals. Norton argues that an adequate environmental ethic must be both long-sighted and nonindividualistic. According to Norton, the central task of such an ethic is to indefinitely protect Earth's natural resources.

Concern for the continued flow of resources insures that sources of goods and services such as ecosystems, soil, forests, etc. remain "healthy" and are not deteriorating. In this way, options are held open and reasonable needs of individuals for whatever goods and services can be fulfilled with reasonable labor, technology, and ingenuity. The emphasis of this concern, however, is not individualistic since it is not focused on the fulfillment of specifiable needs, but rather on the integrity and health of ongoing ecosystems as holistic entities (*ibid.*:144).

Creating a sustainable society, including democratic institutions to control resource use and implementing conservation policies requires a multigenerational temporal horizon of perception and evaluation. These are the communal values that are relevant to assessing whether a society can survive in a specific place for many generations; and these are the

values that are relevant to intergenerational comparisons and judgments of intergenerational equity (Norton 2000:38).

Meanwhile, Saul Smilansky has recently called into question commonly accepted intuitions regarding intergenerational equity and our moral obligations to entities of the *past*, specifically, to humans of the past who were victims of massive atrocities. Although Smilansky's purely anthropocentric argument is not aimed at environmentalists, it can be reframed to address their concerns about humanity's impact on the environment and to highlight the depth or shallowness of their nonanthropocentrism. As I argue in Chapter Two, Smilansky's ideas can serve as a useful tool for determining which current or proposed environmental policies ecological anthropocentrists and "reasonable" nonanthropocentrists of the indefinite future would agree upon endorsing or rejecting. In this chapter, I adapt Smilansky's argument to demonstrate that despite the misanthropic rhetoric of nonanthropocentrists that nature would be better off without humans, the nonanthropocentrists and anthropocentrists identified by Norton's convergence hypothesis indeed converge in being equally tolerant of our species' continued existence. Before applying Smilansky's argument to environmentalists' concerns, however, I will present it in its original form.

Smilansky highlights the lamentable fact that humans throughout history have all too often committed horrific acts of violence against one another. According to Smilansky, virtually all humans who exist today, indeed anyone who has ever existed, should morally prefer not to have been born. Assuming that most people lead relatively innocuous lives, Smilansky claims that such widespread existential regret should not be experienced because of what people have done but because of the enormous atrocities

committed against humanity—such as the Holocaust and the practice of slavery—that were causally necessary for them to have been born. Derek Parfit (1984) notes that since even very slight changes in the timing of someone’s conception can result in entirely distinct arrays of genetic material coming together, any major alterations to human history would have resulted in the existence of a radically distinct set of individuals in the present. It so happens, however, that if, going back millennia, historical atrocities like the Holocaust and the enslavement of African peoples had *not* occurred, the causal chains which led to the existence of virtually all extant humans would have been broken. Since occurrences like the mass murder, rape, torture, enslavement, and genocide of innocent humans are inherently bad, anthropocentrists must prefer a world in which such things did not take place. According to Smilansky, consequently, if we *truly* regret historical atrocities and *sincerely* wish they had never occurred, then we whose existence depends on the occurrence of these atrocities must also implicitly wish that we had never been born, despite paradoxically preferring to exist.

Smilansky claims that this point will be clarified if we ask the following question: “If it were within one’s power, would one choose to prevent the relevant state of affairs? This is clearly an important sense of being sorry” (Smilansky 2013:656—657). In other words, if given the chance to actually *right* terrible past wrongs causally connected to one’s existence, one would be willing to do so even if it precluded one’s existence. Smilansky explains:

Given that we could not realistically expect to exist without the calamities of history like the Holocaust, we cannot merely say that we prefer for the

Holocaust not to have existed, but without being willing to acknowledge that this implies that we would then not have come to exist. Either one does not really prefer this, all considered, namely, is not willing to ‘pay the price of non-existence’, or one does prefer not to have existed, all considered, and regrets one’s existence in this sense. . . . On the direct normative level, when we want to ask our question about what we would prefer *if we have to choose*, we need to assume that matters stand in an ‘either-or’ relationship: either the calamities of the past are avoided, but then we do not come to exist, or we do exist, but then the calamities of the past—which, realistically, are necessary for our coming to be born—are to remain (*ibid.*:657, *emphasis added*).

We can imagine ourselves looking back at someone placed on the verge of a great historical calamity, and being offered the option of pressing a button to stop it (at the expense of particular potential people, including ourselves). There is something hideous about wishing this person *not* to press the button, when we know that something like the Holocaust could, but would thereby not, be prevented. But wishing that that button *would* be pressed is equivalent to being sorry that we exist, in the relevant sense (*ibid.*:665).

Of course, one could claim that Smilansky’s concern is irrelevant since it is not possible for us to prevent bad past events from happening. According to this consequentialist claim, our moral responsibilities extend only to those entities within the causal reach of our actions, which are only efficacious in the present or future. So, if the only morally relevant actions are those that produce effects, we are blameless for shrugging our shoulders about human history prior to our existence. We should, therefore, regret our actions or existence only if they have significantly negative effects on entities in the present or future. Smilansky claims that the consequentialist objection to his form of regret is indecisive for at least a couple of reasons.

First, my claim would be interesting even if it applied only to non-consequentialists. Second, it seems implausible to view human attitudes and emotions as so closely dependent on future relevance, whatever one’s position: surely a consequentialist who has lost his best friend to cancer would be struck by grief, and may well regret things that he did or

did not do for his friend, while that friend was still alive, even if now there is 'no point' in such regret. It would be similarly implausible to say that consequentialists ought not to regret the great evils of the past, which is all that I require in order to get my argument going (*ibid.*:658—659).

One may concede this point to Smilansky and still claim that his argument is vacuous. After all, if we focus on *all* of the (significantly) morally blameworthy behavior in humanity's past that was causally required for our existence, there will be no end to our regrets. Human history is filled with considerable morally reprehensible behavior. Even if we 'corrected' the wrongs of one atrocity such as the Holocaust, the beings whose harms would thereby be averted would nevertheless have their own reasons for preferring nonexistence. For their births, like ours, were causally linked to atrocities of the past and were thus equally regrettable. So, unless there existed a utopian, Garden-of-Eden beginning to human history, there is no point at which anyone who has ever existed should be free of Smilanskian regret. If we were faced with the opportunity to 'correct' all of "the calamities of history," it seems that we would in fact be morally obligated to prevent humans from existing in the first place. Smilansky's response to this argument is that his thought experiment is only meant to test our moral intuitions regarding *specific* atrocities of the past.

My argument does not, however, depend on a strong claim such as that only the best possible world is morally acceptable. It suffices that we recognize that some major instances of evil and suffering could have been prevented, without making other things worse, overall—but that this better alternative world would not have included us. We make a pairwise comparison between a situation where an event like the Holocaust occurs, and a situation where it does not because, for example, Hitler is assassinated. Morally, we ought to regret that such an alternative was not the one actualized (*ibid.*:661).

One could still agree with Smilansky that it is regrettable that specific atrocities like the Holocaust occurred but disagree that one should in principle be willing to sacrifice oneself in order to correct such wrongs. Even if we have the right to sacrifice ourselves to prevent enormous calamities from taking place, this right does not permit us to sacrifice the billions of fellow humans who would also be expunged from existence by our actions. One's noble hypothetical act of suicide might turn out to be the largest atrocity ever committed against humanity. Since almost all of those who currently exist would consider their lives worth living and would thus prefer to have been born, to render such beings nonexistent would surely be to commit a tremendous harm against them. Smilansky considers this objection as well.

Perhaps our perspective, as numerous already-existing, actual persons, enables us to block the demand to acquiesce in our paying the price of the undoing of the evils of the past. After all, even after acknowledging the distinction between being murdered and merely not being born, *now that we are alive*, 'rolling back' history at our expense, for the sake of saving the victims of historical catastrophes, seems equivalent—for us—to our murder: now we exist, and in opting for our not having come to exist, we cease to exist (*ibid.*:662—663).

Nevertheless, Smilansky claims that this objection fails since none of us who would be expunged from existence would ever have been born, so "there would never have been anyone for whom that could be bad" (*ibid.*:663). At the same time, it was undeniably bad for the victims of past atrocities to have been severely wronged. According to the person-affecting perspective (Parfit 1984), only actual, identifiable persons can be harmed in a morally relevant sense. Smilansky, however, argues that the person-affecting perspective (that we are only morally obligated to protect the existential rights of persons who *actually* exist) cannot be used to reject his proposal because if atrocities

of the past had been averted, we who exist today would merely have been *potential* persons.¹ *If we have to choose*, Smilansky claims, our moral obligations to prevent the occurrence of major wrongs to actual persons of the past should outweigh our moral obligations to protect the existential rights of actual persons of the present.

The prevention of the great evils of history, even if it would have been at our expense, must be morally good, overall. The enormity of physical suffering and emotional torment involved is such that one cannot resist the idea that it would have been preferable had history taken a better course, albeit at our expense. The idea that all of this avoidable historical awfulness may be accepted, because it leads to our existence, is a *reductio* of the person-affecting perspective, in this context. With these sorts of stakes, the impersonal perspective triumphs. And from the impersonal perspective, the possibility of our not coming (en masse) into existence is not morally equivalent to our 'mass murder'. Major evils are prevented, and impersonally *there is no significant price*: it is merely that a different set of people is born (*ibid.*:663).

Even if anthropocentrists concede this controversial point to Smilansky, one last objection to the morally obligatory nature of Smilanskian regret may be decisive. Although it certainly would have been preferable for victims of historical atrocities like the Holocaust to have been spared their harms, 'correcting' such atrocities would not prevent future ones from taking place. Since occasional displays of horrific, interspecific violence occur all too commonly among humans, it seems plausible that the best we could hope for in 'correcting' history would be to exchange past atrocities for future ones. However, if that is the case, it does not seem rational to argue that we should be morally required to sacrifice ourselves to bring about such a state of affairs. Regardless

¹ Personalists such as Alberto Giubilini (2012) would insist that we would instead be rendered merely *possible* persons. The theoretical distinction is briefly discussed in Chapter Two. It should also be noted that nonanthropocentrists as well as ecological anthropocentrists reject the person-affecting perspective for reasons that are pointed out in Chapters Two and Three.

of whether we reject Smilansky's conclusion, however, his thought experiment remains insightful and can be applied to the ethical concerns expressed by environmental philosophers. Also, as Smilansky notes, "Clearly people can be led, by the realization of the dependence of their existence on the evils of the past, to a stronger determination to improve the future" (*ibid.*:659). Although anthropocentrists may reject the idea that we should be morally obligated to sacrifice ourselves to 'correct' major atrocities of the past, they may nevertheless accept the idea that future, merely possible people should be willing to 'sacrifice' their existence in order to correct the wrongs that we commit in the present. Accordingly, a different set of future humans with less Smilanskian regret would come into being.

1.4 Smilanskian Regret Meets Environmental Philosophy

From the perspective of environmentalists, one of the greatest evils of the past (as well as of the present) is the anthropogenic mass extinction of Earth's nonhuman species. I argue in Chapter Three that this is one of the most salient reasons that a geologic scale is morally relevant. According to paleontologists following Paul Martin (1967), the most likely cause of the late Pleistocene mass extinction of Earth's megafauna was the human practice of overkill. Ever since our species began its diaspora out of Africa and Eurasia around 50,000 to 70,000 years ago, its invasion into novel habitats has been highly correlated with the mass extinction of our planet's nonhuman species. From an environmental philosopher's perspective, these are surely calamities that ought not to have taken place and therefore provide plausible reasons for experiencing regret about what our species has done to nonhuman nature.

If we do not look back to the late Quaternary, we underestimate the rate of extinction during the presence of humans on the planet. This is no problem for normal or background extinctions, which sputter along like the decay of isotopes. Theoretically, background extinction is roughly in balance with the evolution of new taxa. But extinctions in near time far exceed background extinctions. Ignoring, for example, the disappearance around 13,000 years ago of the horses, mammoths, and mastodons that had been native to North America for tens of millions of years seriously affects any estimate of the rate of environmental degradation during our tenure on the planet (Martin 2005:55).

Of course, the pulse of extinctions that began with early humans has continued to accelerate exponentially as the environmental side effects of human societies have infiltrated almost every conceivable niche of the biosphere.

What is currently taking place is a gigantic process of destruction comparable only to the great climatic and cosmic catastrophes that mark the history of life on earth. Due to the irreversible quality of this process, many ecologists consider this “quiet process of death” (Ehrlich and Ehrlich 1981) to be all together one of the most serious and disturbing symptoms of the ecological crisis (Gorke 2003:205).

Bringing to bear Smilanskyan regret, shouldn't environmental philosophers—at least those who label themselves nonanthropocentrists—be sorry that *Homo sapiens* ever evolved? In other words, from the moral perspective of such environmentalists, wouldn't the Earth be a much better place if humans had never existed? Frederick Ferré suggests that the nonanthropocentric perspective may compel one to be “ashamed for the human race, regretting as demonic our presence on the earth” (Ferré 1994:61). If *Homo sapiens* had never existed, the anthropogenic mass extinction event would never have taken place. Indeed, none of the many ecological degradations associated with our species would have occurred. Given that the *raison d'être* of environmental philosophy is deep concern about such degradations, it seems that they should certainly

experience a great deal of Smilanskyan regret regarding not only their own existence but that of *Homo sapiens* at large.

In order to test the moral implications of environmentalists' confrontation with Smilanskyan regret, I suggest the following thought experiment. Let us imagine that a pathologically curious, pandimensional being (hereafter referred to as Pandi) is fascinated by Smilansky's argument and is keen to determine if any environmental philosophers would be willing to atone for humanity's sins against nature by expunging *Homo sapiens* from existence. As Smilansky points out, nonanthropocentrists need not insist on instantiating the best possible world, which would presumably be one free of suffering—particularly since such a world is hardly conceivable in the light of what we know about natural selection. However, a world free of the “cancerous growth” (Rolston 1996:259) of humanity would be devoid of a great number of massive atrocities that have befallen nonhumanity. Since humans have committed an inordinately huge number of atrocities against nonhumans, however, Pandi has decided to focus specifically on the atrocity of extinction. Pandi has placed before us two enormous, pandimensional chambers, each of which has been rigged to exterminate whatever is inside at the push of a button. In the first chamber are all the members of every species that have ever been extirpated by humans, along with all of the members of the species that are currently facing extinction. We find ourselves transported into the second chamber, along with every human who has ever existed, and every primate ancestor going back to the Miocene. Pandi informs an environmental philosopher that s/he must choose which beings within the two chambers will be expunged from existence. If s/he

exhibits genuine Smilanskyan regret for humanity's sins, s/he will push the button that represents the second chamber, *Homo sapiens* will never have evolved, and all of the species that became extinct as a result of humanity will be 'restored' to face natural, nonhuman selection pressures. If the environmental philosopher does not genuinely regret the existence of *Homo sapiens*, s/he will push the button that represents the first chamber. As a result, nothing will have changed. All of the species that were anthropogenically extinguished will remain extinct, and those species that are highly endangered will continue to face imminent extinction. In hopes of forcing compliance, Pandi informs the philosopher that if s/he is not willing to choose, the beings within both chambers will be exterminated.

We will begin by considering the likely response of an anthropocentrist like Bryan Norton and then consider the likely responses of a few nonanthropocentrists. Because Norton, like any other ecological anthropocentrist, subscribes to the Axiom of Future Value (referred to as the AFV throughout the dissertation), his response is fairly straightforward. He would not likely be willing to cause the extinction of *Homo sapiens* at any cost. According to the AFV:

The perpetuation of the human species is a good thing because a universe containing human consciousness is preferable to one without it. This value claim implies that current generations must show concern for future generations. They must take steps to avoid the extinction of the species and they must provide a reasonably stable resource base so that future generations will not suffer great deprivation (Norton 1984:143).

According to my definition, anyone other than an egoist who qualifies as anthropocentric would choose to save humanity in this scenario. Since an egoist may have his or her own inscrutable, self-serving reasons for choosing to expunge humanity

from existence, egoists are fundamentally unpredictable. In all other cases, an anthropocentrist is someone who exhibits a human-favoring bias such that s/he would prefer that humans exist even if human existence is inherently ecologically devastating for a host of nonhuman species.

So which option would a nonanthropocentrist choose in Pandi's Chamber of Death? Pandi is keen to discover ecocentrist Holmes Rolston's response, since he declares that "a species ought not to be sacrificed on the altar of human mistakes, regardless of what persons made mistakes where in the complex chains of events" (Rolston 1998:350). As discussed in Chapter Three, since Rolston argues that humans who have exceeded their land's carrying capacity are essentially cells of "cancerous growth," and since ecologists now widely claim that humans have overshoot the planet's carrying capacity, perhaps he would be willing to atone for humanity's sins. However, regarding mass extinctions of the geologic past, Rolston claims:

We first think that the catastrophic extinctions were quite a bad thing, an unlucky disaster. But in fact they were good luck. Indeed, were it not for such extinctions we humans would not be here, nor would any of the mammalian complexity. . . . We should think twice before judging these catastrophic extinctions to be a bad thing (Rolston 1994:48).

Since Rolston accepts mass extinctions of the geologic past *because* they ultimately led to the existence of *Homo sapiens*, it is not likely that he would be willing to sacrifice humanity's existence in this scenario. Past mass extinctions such as the end-Permian event caused by "asteroid impact or volcanism" (Benton and Twitchett 2003:359) were several orders of magnitude greater than the current, anthropogenic one. Paleontologists Michael Benton and Richard Twitchett explain:

Life came close to complete annihilation 251 Mya. A fortunate 5% of species did, however, survive and understanding how these few taxa recovered from the severest of evolutionary bottlenecks is crucial to understanding the subsequent evolution of the biosphere. It took 100 My for global biodiversity at the family level to return to pre-extinction levels (ibid.:362).

If Rolston has no regrets about such a tremendous loss of nonhuman species for ultimately human-favoring reasons, he would certainly not experience Smilanskyan regret for the comparative handful of species extirpated by humans since such regret would morally require him to choose to prevent humans from ever existing.

Perhaps Pandi can solicit a more nonanthropocentric response from Callicott. After all, Callicott has criticized the sort of response offered by Rolston for exhibiting the stoic indifference of a holistic rationalist regarding past mass extinctions.

A holistic rationalist could not regret the massive die-off of the late Cretaceous because it made possible our yet richer mammal-populated world (Callicott 1989:142).

From the classical rationalistic axiological perspective, the *system itself*, classically the cosmos and its various microcosmic sub-systems, often including human society, was considered valuable *per se* or at least to exemplify or instantiate "the Good." In its present adaptation to non-anthropocentric environmental ethics, rational holism would consider the *biosphere* as a whole and its several sub-systems, biomes, biocoenoses, and micro-ecosystems, species, and their populations to be valuable (Callicott 1984:303).

One may morally decry the very real and imminent prospect of an abrupt, massive reduction of biotic diversity to be succeeded by a "monoculture" consisting of tens of billions of human beings, their habitations, their economic cultivars (and the pests thereof), human transportation, distribution, and communication networks, and little else. However, if one forthrightly and articulately defends one's considered intuition that this process of anthropogenic biological impoverishment is objectively morally wrong by positing organic "richness" (biotic diversity, complexity, and harmony) as objectively and impersonally good, one might well be accused of temporal parochialism. Considering our time as but an

infinitesimal moment in the three and one-half billion year tenure of life on planet Earth, the present tendency of man to extirpate and eventually extinguish other species and take over their habitats for himself and his domesticated symbionts might be viewed quite disinterestedly as but a brief transitional stage in the Earth's evolutionary Odyssey (Callicott 1984:303—304).

However, Callicott's reason for criticizing holistic rationalism is that a consistent holistic rationalist, unlike Rolston, would likewise be disinterested in the extinction of humanity. Callicott is aware that if humans were to destroy most of the 'complex' life forms on Earth, including themselves, they would eventually be replaced by other living things that a nonanthropocentrist who embraces holistic rationalism could value no less than Earth's current biota.

The deeply felt and widely shared moral intuition that *extant* non-human species and the biosphere in its *current* state have intrinsic value, therefore, does not seem adequately articulated by holistic rationalism. There is something valuable, it seems intuitively certain, about *our* world (with us in it!) which nevertheless resists reduction to our *interests* or to our *tastes*. For its articulation and explanation this intuition, if it is to withstand critical examination, will require a moral theory that is at once humanistic, but not anthropocentric (*ibid.*:304).

Callicott would therefore reject Pandi's offer to atone for humanity's sins as well. Although Callicott openly professes his humanism, he believes that this does not make him an anthropocentrist. Callicott defines an anthropocentrist as someone who can only value nonhumanity instrumentally but allows a humanist to value it intrinsically. According to my definition, however, a humanist is simply a type of anthropocentrist. According to simple humanism, all human beings, regardless of whether they lack person-imbuing traits or are useful to fellow humans, are to be treated as members of the moral community—that is, they have strong rights to exist. Personalists, on the

other hand, are anthropocentrists who only grant strong existential rights to entities that display traits of personhood—that is, they subscribe to the person-affecting perspective. As discussed in Chapter Two, Callicott formulates priority principles that adjudicate in favor of humans whenever their existence is at stake. Callicott argues that “the duties attendant upon citizenship in the biotic community (to preserve its integrity, stability, and beauty) do not cancel or replace the duties attendant on membership in the human global village (to respect human rights)” (Callicott 1999:71—72).

Let us finally consider how an egalitarian biocentrist such as Taylor would respond to Pandi’s dilemma. According to Taylor’s ethics of respect for nature, all (wild) living things are equally valuable and equally deserving of respect. Knowing this, Pandi hands him a coin to toss in case it will help him decide. However, since Taylor subscribes to the principle of species impartiality, perhaps he would give greater weight to the sheer number of nonhuman species that could be saved from Pandi’s Chamber of Death.

Our duties toward the Earth’s nonhuman forms of life are grounded on their status as entities possessing inherent worth. They have a kind of value that belongs to them by their very nature, and it is this value that makes it wrong to treat them as if they existed as mere means to human ends. It is for *their* sake that their good should be promoted or protected. Just as humans should be treated with respect, so should they (Taylor 2011:13).

Each being has inherent worth as an individual and must accordingly be treated with respect, regardless of what species it belongs to. . . . To harm several such beings . . . is to commit a number of violations of duty, corresponding to the number of creatures harmed (*ibid.*:284).

Since the number of anthropogenically extirpated individuals in the first chamber outnumbers the humans, hominids, and primates in the second chamber, Taylor would

seemingly be duty-bound to exhibit the Smilanskyan regret Pandi is anticipating. Nevertheless, as discussed in Chapter Two, like Callicott and other nonanthropocentrists, Taylor formulates priority principles that adjudicate in favor of humanity when it comes down to an us-or-them scenario. Regarding his principle of self-defense, Taylor explains:

When we have a firm sense of our own worth we place intrinsic value on our existence as persons. Out of self-respect we judge our personhood to be something worthy of being preserved. At the same time we believe that we are not inferior in worth to animals or plants. Now if we were to refrain from defending ourselves against them and so allow them to kill us, we would be sacrificing our very existence to them. To *require* such a sacrifice as a moral duty could only be justified on the ground that they have greater inherent worth than we do. Assuming that we have no good reasons for accepting that ground, we may conclude that there is no validly binding duty on our part to sacrifice ourselves to them. It is therefore morally permissible for us to defend ourselves against them, even though they are equal to us in inherent worth (*ibid.*:268).

Although it may be argued that Taylor's principle of self-defense does not apply in Pandi's Chamber of Death since nonhumans are not acting aggressively against humans, Smilansky's form of regret *does* require us to be willing to sacrifice ourselves "as a moral duty." It seems that one could thus interpret Taylor as implying that he would choose to 'defend' *Homo sapiens* from nonexistence in this scenario. Perhaps one could also take the straightforward defense of human-favoritism expressed by Taylor's follower, James Sterba, as a confirmation of this assumption.

Actions that are necessary for meeting one's basic needs or the basic needs of other human beings are permissible even when they require aggressing against the basic needs of animals and plants (Sterba 2001:22).

In addition, if we were to prefer consistently the basic needs of the members of other species whenever those needs conflicted with our own (or even if we do so half the time), . . . we would soon be facing

extinction, and, fortunately, we have no reason to think that we are morally required to bring about our own extinction (Sterba 1994:232).

At this point, perhaps Pandi is thinking, “With nonanthropocentrists like these, who needs anthropocentrists?” As far as I am aware, there is no environmental philosopher, anthropocentrist or nonanthropocentrist, who would willingly sacrifice *Homo sapiens* in order to ‘restore’ all anthropogenically extirpated or endangered species to their ‘natural’ state. Only a nonanthropocentrist who genuinely lacks any human-favoring bias would bite the bullet and correct the sins of humanity. But no such creatures seem to exist. Moreover, such a nonanthropocentrist would not be deemed “reasonable” by Norton or by any of the so-called nonanthropocentrists whose responses we have just considered.

So what should this exercise in Smilanskyan regret teach us? In support of Norton’s convergence hypothesis, there is a very significant amount of agreement among anthropocentrists and nonanthropocentrists concerning the extent of their human-favoritism. Human-favoritism, like nonhuman-favoritism, runs along a continuum as to whether it is more individualist or collectivist in character. It is at the collective end of the continuum, where, not individual humans, but the entire species *Homo sapiens* and its ecological requirements are appropriately valued, that the convergence takes place.

If we were to retread the Pandi thought experiment and place individual nonhumans in one chamber and individual humans in the other, there would be less convergence. For example, if an endangered black rhinoceros were in the first chamber and a poverty-stricken Zimbabwean who has exceeded his or her land’s carrying

capacity were in the second, Holmes Rolston would clearly save the rhinoceros, whereas all of the other environmental philosophers discussed in the above scenario would save the human.

Given the fact that rhinos have been so precipitously reduced, given that the Zimbabwean population is escalating (the average married woman there desires to have six children), one ought to put the black rhino as a species first, even if this costs human lives (Rolston 1996:262).

If we were to place various individual nonhumans in both chambers, we should also expect instances of divergence. For example, Rolston, Callicott, and Norton would all save an individual from an endangered species if it were paired with an individual from a heavily populated species, but Taylor would find such a consideration irrelevant. Because of egalitarian biocentrism's strict adherence to individualism, Taylor's position is ultimately at odds with ecocentrists and ecological anthropocentrists who insist that we generally have stronger moral obligations to protect ecological collectives.

Although the environmentalist's application of Smilanskyan regret may seem to have accomplished little more than to highlight one aspect of Norton's predicted convergence between anthropocentrists and nonanthropocentrists, I argue in Chapter Two that it is a more useful tool if it is applied to environmentalists' concerns about the future. There I suggest that by employing a not-so-ignorant, intertemporal Rawlsian veil, the environmentalists identified by Norton's convergence hypothesis can consider ecological aspects of various futures that will likely be the result of current and proposed environmental policies. I argue that if in a given future scenario such environmentalists find themselves willing to "press the button" to set things 'right,' even at the expense of their own future proxy's existence, it should be clear to them

which policies would best promote the rationally defensible interests, preferences, and values of future humans and which policies would be universally condemned.

Chapter Two: Ecological Anthropocentrism – A New Paradigm

2.1 A Preliminary Defense of Convergence

According to Bryan Norton's convergence hypothesis, "*provided anthropocentrists consider the full breadth of human values as they unfold into the indefinite future, and provided nonanthropocentrists endorse a consistent and coherent version of the view that nature has intrinsic value, all sides may be able to endorse a common policy direction*" (Norton 1997:87). Norton claims that although adherents to either *ism* disagree with one another about the role that *motives* should play in policy endorsement, they agree when it comes to the *consequences* that should follow—what Norton refers to as "protection of the resource base through indefinite time" (Norton 1984:143). He argues that it makes no practical difference whether nonhuman nature is valued instrumentally as a resource base or intrinsically as a locus of absolute value. If either perspective is coherently and consistently expressed from a rationally adopted worldview, it calls for the preservation or conservation of Earth's species, biodiversity, ecosystem processes, and so on.

However interesting and important the philosophical question of whether nonhuman elements of nature have intrinsic value, answers to this question do not correspond in any direct way to important disagreements regarding environmental objectives and policies. Long-sighted anthropocentrists and ecocentrists tend to adopt more and more similar policies as scientific evidence is gathered, because both value systems—and several others as well—point toward the common-denominator objective of protecting ecological contexts. Environmentalists, of course, will continue to disagree about what should be done in particular situations. (Norton 1991:246).

Norton's point that needs to be emphasized is that the convergence hypothesis concerns a generally agreed upon *policy direction*. It does not state that the

anthropocentrists and nonanthropocentrists identified by the hypothesis will *always* endorse the same environmental policies or that their motives will converge. Disagreements about what should be done in various particular situations are inevitable among environmentalists with disparate beliefs about ultimate values. However, policies that protect larger environmental contexts are largely informed by ecological and biological sciences that, although admittedly value-laden, are supposed to be free of the value biases endemic in anthropocentric and nonanthropocentric axiologies. “A broadly contextualist approach to environmental policy characterizes the emerging consensus among environmentalists, but the policy consensus is not accidental—it is forged on the basis of a shared view of science” (*ibid.*:192). Environmentalists identified by the convergence hypothesis agree that humans and nonhumans are evolutionarily continuous and that all life forms require a healthy environment with a stable resource base in order to flourish. These environmentalists also agree that knowledge gained from the empirically-grounded earth sciences is an important element of any rationally adopted worldview.

An instance of the emerging convergence that Norton foresees can be found in the overlapping policy goals of the diverse environmental groups working to achieve wetlands habitat protection in North America. Norton points out that several anthropocentric groups founded to promote the interests of hunters, anglers, and other nature-recreation enthusiasts have long endorsed the same policies to protect wetlands habitats that are endorsed by nonanthropocentric groups founded to protect nature for its own sake. Although the values embraced by the members of these diverse groups

are in conflict, this has had no practical bearing on the environmental policies they have been willing to endorse.

These groups have worked for the same goals for decades and, while they espouse radically different values and use rhetoric offensive to each other, they can be expected to continue to support into the indefinite policy future the expansion of wetlands protection, more stringent limits on activities that destroy wetlands, and restoration of degraded wetlands. According to the general picture we have painted of the emerging consensus among environmentalists, a generally ecological argument has driven these diverse groups into the same policy camp; whether one likes wildfowl to shoot at or to look at, whether one touts the rights of birds, or whether one sees migratory waterfowl as an important part of a "whole" ecological context, our expanding understanding of ecological systems enforces on all of these groups the common-denominator objective of protecting and restoring wetlands habitats on the flyway corridors (*ibid.*:201—202).

Still, opponents of Norton's hypothesis argue that even if a convergence of desired consequences is granted in some cases, anthropocentric motives will nevertheless invariably derail most attempts to achieve such consequences on the long-term basis needed since anthropocentrism all too easily permits nonhuman interests to be overridden. According to nonanthropocentrists, anthropocentric worldviews are directly responsible for the environmental degradations caused by human societies. They argue that therefore, human-centered environmental policies cannot effectively redress the ecological predicament but can instead only make it worse. Because any form of anthropocentrism ultimately privileges the satisfaction of human preferences or interests over those of nonhumanity, nonanthropocentrists are concerned that such favoritism is "nothing more than the expression of an irrational bias" (Taylor 1981:215) that implicitly condones behaviors that are ecologically devastating. They insist that environmental policies must be based on a nonanthropocentric worldview that

recognizes the intrinsic value or inherent worth of nonhumanity in order to guarantee that such policies do not arbitrarily favor humans when their nonvital interests conflict with the vital ones of nonhumans. Nonanthropocentrists argue that on the indefinite timescale during which Norton's anthropocentrically defined resource base is to be protected, divergence among anthropocentric and nonanthropocentric environmentalists is more likely than convergence.

Nonanthropocentrists following J. Baird Callicott claim that when nature is solely instrumentally valued as a resource base—as Callicott presumes to be the case for Norton—its appraisals are ultimately reducible to human-favoring cost-benefit analyses. It may be the case that environmentalists with contrary notions of value will endorse the same policies that protect wetlands habitats, as Norton points out. However, strictly anthropocentric valuations of such habitats or the species that inhabit them will be based on aesthetic, recreational, or other utility-promoting characteristics that can be “quantified in a monetary metric” (Callicott 2009:144). The concern of Callicott and many other nonanthropocentrists is that an anthropocentric cost-benefit analysis will eventually reveal that humans would more greatly benefit by converting a ‘protected’ habitat or ecosystem into an industrial, agricultural or residential area. Since the anthropocentric values in question are open to the same fluctuations as the stock market, whereas the nonanthropocentric ones will remain constant, any so-called convergence that takes place will be incidental and short-lived at best. Callicott argues that purely anthropocentric motives cannot lead to policies that would indefinitely

protect species, habitats, ecosystems, and so on when such protection provides no clearly overriding economic benefits to humans.

If something has only instrumental value, its disposition goes to the highest bidder. If that something is some subsection of nature – say, a wetland – conservationists must prove that an economic cost-benefit analysis unequivocally indicates that it has greater value as an amenity than it has, drained and filled, as a site for a proposed shopping mall. But if the intrinsic value of wetlands were broadly recognised, then developers would have to prove that the value to the human community of the shopping mall was so great as to trump the intrinsic value of the wetland. The concept of intrinsic value in nature functions politically much like the concept of human rights. Human rights – to liberty, even to life – may be over-ridden by considerations of public or aggregate utility. But in all such cases, the burden of proof for doing so rests not with the rights holder, but with those who would over-ride human rights. And the utilitarian threshold for over-riding human rights is pitched very high indeed (Callicott 2002:14).

What Norton's critics do not seem to fully appreciate is that the convergence hypothesis is limited to nonanthropocentric and anthropocentric ideologies that he considers to be as "coherent," "reasonably interpreted" and "suitably broad and long-sighted" as the "weak" anthropocentrism he defends. Norton argues that in addition to being based on a rationally defensible worldview, a reasonable and coherent environmental ethic "cannot be individualistic in the way that standard contemporary ethical systems are" (Norton 1984:132). Only a highly individualistic and short-sighted anthropocentrism can condone policies that are based on the satisfaction of individuals' preferences when it is foreseeable that such policies will be detrimental to the satisfaction of long-term human interests. In Chapter One, I argued that when it comes to ethics, nonanthropocentrists and anthropocentrists alike vary along a continuum according to whether their overriding intuitions are more aligned with individualistic or

collectivistic axiologies. Among the ideologies that Norton would characterize as the most unreasonable and short-sighted are those that are also the most individualistic. When either anthropocentrism or nonanthropocentrism is reduced to an ideology that champions above all the interests or preferences of individuals, it is incapable of informing any coherent policy recommendations concerning the environment. For example, Paul Taylor's egalitarian biocentrism, according to which each (wild) organism has equal inherent worth, could not be consistently or coherently put into practice. If strictly practiced, even disease-causing microorganisms must be accorded the same respect and considerations as the organisms they infect.

If we accept the biocentric outlook and have genuine respect for nature. . ., we remain strictly neutral between predator and prey, parasite and host, the disease-causing and the diseased. To take sides in such struggles, to think of them in moral terms as cases of the maltreatment of innocent victims by evil animals and nasty plants, is to abandon the attitude of respect for all wild living things. It is to count the good of some as having greater value than that of others. This is inconsistent with the fundamental presupposition of the attitude of respect: that all living things in the natural world have the same inherent worth (Taylor 2011:178).

In an attempt to make his egalitarian biocentrism coherent, Taylor formulates a set of priority principles meant to adjudicate the inevitable conflicts of interest that come up as a result of everyday behaviors like eating, cleaning or grooming. According to the principle of minimum wrong:

Each being has inherent worth as an individual and must accordingly be treated with respect, regardless of what species it belongs to. An action that brings harm to any one such being constitutes a prima facie wrong from which moral agents have a duty to refrain. To harm several such beings is not merely to bring about a certain amount of intrinsic disvalue in the world, to be balanced against whatever value might also be

produced. It is to commit a number of violations of duty, corresponding to the number of creatures harmed (*ibid.*:284).

It is not the aggregate amount of disvalue or harm that is relevant here, but the number of cases in which one fails to carry out one's duty to another being. Each entity that is harmed is thereby treated unjustly and so is wronged. Because the duty of nonmaleficence is owed to each individual organism, it would be morally unjustified to harm a larger number of organisms than a smaller number (*ibid.*:284—285).

In other words, the numbers count. This certainly has interesting implications for the status of microorganisms. Contrary to the prior claim that parasite and host must be accorded the same respect, if we must choose between them, the principle of minimum wrong would almost universally require us to choose in favor of the parasite. Consider, for example, that bacteria astronomically outnumber the 'complex' organisms they inhabit. As William Grey notes, "There are more *e. coli* in every human intestine than there have ever been *homo sapiens*" (Grey 1993:466). According to Taylor's most basic premise, no being is more deserving of existence than any other. However, if humans respected *all* living things as equally valuable and equally deserving of life, we could not engage in simple, everyday activities such as eating, bathing or brushing our teeth. This would present no small challenge for anyone who wanted to use a nonanthropocentric "respect for nature" as a basis for generating policies that direct *human* behavior. Victoria Davion points out that Taylor's brand of nonanthropocentrism is utterly impracticable for this reason. In line with Norton, Davion also suggests that proponents of such a worldview may inadvertently distract thinkers from reaching a solution to ecological problems that have been wrongly blamed on anthropocentric attitudes.

The idea that we can meaningfully "revere all life" can make us feel good, but such empty slogans may do no more than comfort those who say

them, and alienate those who think they are meaningless platitudes. This idea may cause needless rifts between people who should be working together (Davion 2006:125).

It is toward the collective end of the individualism-collectivism continuum—where individuals, communities, species, habitats, ecosystems, and larger ecological wholes are appropriately valued—that Norton’s proposed convergence takes place. At its most collective level, anthropocentrism entails a serious consideration of the interests, preferences and values of current as well as future members of the species. Since it is chiefly concerned with the continued existence of humanity into the indefinite future, its recommended policies will be those that protect the environmental conditions that promote *Homo sapiens’* evolutionary success, which is best measured on a geologic timescale.² Norton thus makes a coherent claim in arguing that policies to protect the “resource base” will be maintained indefinitely. Similarly, because what Norton would deem a “reasonably interpreted” version of nonanthropocentrism generally values larger collectives over individual entities—including species and the ecosystems they require in order to flourish—its recommended policies will also be those that attempt to indefinitely protect the “health,” or “integrity,” of the environment. Nonanthropocentrists typically agree with Laura Westra’s assertion that “ecological integrity supports. . . the imperative of survival. . . for all, globally” (Westra 1997:291). In other words, according to most nonanthropocentrists, what is good for nature as a whole is also good for collective humanity. This supposition converges with

² More will be said about the moral relevance of a geologic timescale in Chapter Three.

the anthropocentrist's reverse pronouncement of it that what is good for collective humanity is also good for nature as a whole.³

Critics of convergence should also keep in mind the distinction that Norton makes between *strong* anthropocentrism, which is associated with the satisfaction of merely *felt* preferences, and *weak* anthropocentrism, which is associated with the satisfaction of *considered* preferences.

A felt preference is any desire or need of a human individual that can at least temporarily be sated by some specifiable experience of that individual. *A considered preference* is any desire or need that a human individual would express after careful deliberation, including a judgment that the desire or need is consistent with a rationally adopted world view—a world view which includes fully supported scientific theories and a metaphysical framework interpreting those theories, as well as a set of rationally supported aesthetic and moral ideals (Norton 1984:134).

Felt preferences, Norton argues, relate exclusively to the preferences and values of individuals and only coincidentally reflect collective preferences or values. As such, there is no guarantee that their satisfaction will not be opposed to the long-term, collective interests or values of humanity. By contrast, he claims, considered preferences relate to the preferences and values of collective humanity and reflect the full range of human preferences and values worthy of rational support. Therefore, the satisfaction of considered preferences cannot jeopardize collective human interests. Because the considered preferences of humanity must be ecologically informed, I prefer the term *ecological* anthropocentrism to *weak* anthropocentrism. Ecological

³ Of course, either statement is highly problematic. If nature as a whole has a good, there may be innumerable ecological conditions that would be good for nature but bad for humanity. There may also be innumerable ecological conditions that would be good for collective humanity but bad for a great many nonhumans. In ecological disturbances and successions, there are always losers that accompany the winners. The K-T event that heralded the demise of the dinosaurs provides a clear example.

anthropocentrism converges with reasonably interpreted forms of nonanthropocentrism that are long-sighted and collectivistic by endorsing environmental policies that would promote humanity's long-term existence over its extinction.

According to ecological anthropocentrism, environmentalists appropriately condemn human-centered worldviews that are short-sighted and that permit avoidable ecological degradations that are foreseeably detrimental to humanity's long-term prospects. However, it is not appropriate to simply equate such worldviews with *anthropocentrism* since it is possible to maintain an ecologically responsible form of anthropocentrism. Along anthropocentrism's continuum, various forms of egoism, personalism, and humanism can be legitimately criticized for implicitly or overtly permitting interactions with the environment that are bad for collective humanity, but ecological anthropocentrism is free of their most blameworthy characteristics. Furthermore, what Frederick Ferré refers to as *perspectival anthropocentrism* is unavoidable since humans "have no choice but to think as humans, to take a human point of view even while we try to transcend egoism by cultivating sympathy and concern for other centres of intrinsic value" (Ferré 1994:72). One may thus legitimately question whether any form of nonanthropocentrism can offer a coherent alternative at all—at least as a guide to human action. A genuine form of nonanthropocentrism free of human biases would likely be unable to provide *humans* with coherent grounds for adjudicating in favor of a particular organism, species, or ecosystem over another, or it might even condone policies that would be aggressively misanthropic. In what follows, I

will attempt to demonstrate that what Norton would consider a reasonable and coherent interpretation of nonanthropocentrism shares more commonalities than differences with ecological anthropocentrism. In fact, as argued in Chapter One, because reasonably interpreted forms of nonanthropocentrism favor an Earth inhabited by humans to one in which humans are eradicated, it may be more appropriate to consider them self-deprecating attempts at ecological anthropocentrism.

2.2 What's Wrong with Anthropocentrism? The Standard Arguments

Those who reject anthropocentrism as a basis for environmental ethics typically claim that it rests upon ontologies and axiologies with problematic, question-begging assumptions that serve to justify humanity's exploitation and degradation of nonhumanity. According to paradigmatic assumptions going back at least to the ancient Greeks, humans are ontologically and axiologically privileged among Earth's life forms. However, in the wake of the Copernican and Darwinian revolutions in science, it seems bad faith to continue upholding the supernatural assumption that humans are the measure or measurers of all things. As stated by Paul Taylor:

Now if the groundlessness of the claim that humans are inherently superior to other species were brought clearly before our minds, we would not remain intellectually neutral toward that claim but would reject it as being fundamentally at variance with our total world outlook. In the absence of any good reasons for holding it, the assertion of human superiority would then appear simply as the expression of an irrational and self-serving prejudice that favors one particular species over several million others (Taylor 1981:217).

Nonanthropocentrists criticize the ontological assumption that humans occupy a place of central importance in the universe or that humans have privileged access to reality. They also criticize axiological assumptions associated with anthropocentrism such as

that humans alone have intrinsic value or that persons alone can be harmed, or morally wronged. While these tenets do, indeed, characterize some human-centered worldviews, they cannot be attributed to all forms of anthropocentrism. Although ecological anthropocentrism by definition exhibits favoritism toward *Homo sapiens*, such favoritism need not be based on the assumption that humans are *objectively* superior to, or more *intrinsically* valuable or cosmically important than, nonhumans. An ecological anthropocentrist requires no such mysterious reason for exhibiting favoritism toward humanity and would thus likely agree with Bernard Williams' assessment that one's identity as a human being is reason enough.

Now there are some people who suppose that if in any way we privilege human beings in our ethical thought, if we think that what happens to human beings is more important than what happens to other creatures, if we think that human beings as such have a claim on our attention and care in all sorts of situations in which other animals have less or no claim on us, we are implicitly reverting to a belief in the absolute importance of human beings. They suppose that we are in effect saying, when we exercise these distinctions between human beings and other creatures, that human beings are more important, period, than those other creatures. That objection is simply a mistake. We do not have to be saying anything of that sort at all. These actions and attitudes need express no more than the fact that human beings are more important *to us*, a fact which is hardly surprising (Williams 2006:139).

According to Norton, the considered preferences of ecological anthropocentrism are ultimately based on the fundamental belief that a universe with human life and consciousness in it is preferable to one without them. It is simply the case that a consistent and sufficiently long-sighted form of anthropocentrism prefers humanity's evolutionary success to its failure. Norton argues that such favoritism presupposes the acceptance of the Axiom of Future Value (AFV).

The continuance and thriving of the human species (and its evolutionary successors) is a good thing, and every generation is obliged to do what is necessary to perpetuate that good. The obligation to perpetuate and protect the human species is therefore accepted as a fundamental moral axiom, which exists independently of obligations to individuals (Norton 1991:216).

Because nonanthropocentrists generally express a preference for “*our world (with us in it!)*” (Callicott 1984:304) and formulate principles of self-defense and preservation that justify, with qualifications, humanity’s exploitation and destruction of nonhumanity in order for humans to flourish and remain viable, it seems that most nonanthropocentrists at least implicitly subscribe to the AFV. A nonanthropocentric formulation of Norton’s axiom would state that the continuance and thriving of *all species*—including *Homo sapiens*—is a good thing that we are obliged to perpetuate. Although nonanthropocentric environmentalists differ from animal liberationists by insisting that we should only be obliged to perpetuate the good of all *wild, uncultivated*, or otherwise *naturally* occurring species, they formulate principles that make exceptions for *Homo sapiens*, a heavily domesticated species, to go on existing.

2.3 Anthropocentrism as Ontological Error

Nonanthropocentrists typically insist that our current ecological crisis can be traced to pervasive ideologies that overinflate humanity’s importance in the grand scheme of things. Anthropocentrism is commonly criticized for unjustifiably presuming humans to be the central focus of the universe. Nonanthropocentrists argue that because of such hubris, human societies have pursued the exploitation of nonhumanity without much regard for the ecological repercussions. At least since the ancient Greeks, orthodox ontologies have assumed that human lives have a cosmic significance or

purpose that is incomparably superior to that of nonhumans. According to Aristotle, for example, life forms are naturally arranged in a hierarchy according to their apparent teli, with humans situated at the apex of Earth's biota as the sole animal whose purpose is to exercise reason. Aristotle argued that nonhuman organisms' inability to reason justifies the conclusion that a large part of their teli is to serve humanity. Although the exploitation of nonhumanity would not lead to ecological catastrophe if it were performed sustainably and with an appropriate appraisal of its ecological impacts, it is not difficult to understand why many environmental thinkers have been quick to blame our current ecological predicament on an attitude of self-righteous entitlement to treat nonhumanity as nothing more than a resource base. Since the human population has not remained constant over the last couple of millennia but has instead continued to grow exponentially, our collective exploitation of Earth's resources has likewise increased exponentially and is intimately connected to the escalating environmental problems that threaten our own species' long-term prospects.

It is true that the Aristotelian worldview was seemingly supplanted with the advent of the supposition of post-Darwinian science that since evolution has no ultimate purpose, no life form is objectively higher or lower than any other. It might seem natural for this supposition to be accompanied by the conviction that no organism is more entitled to Earth's resources than any other. However, as pointed out by Jonathan Balcombe, Aristotle's influence has been incredibly pervasive.

Since Aristotle first claimed that animals exist to provide humans with food and other uses, humans have held themselves apart from all other creatures. Aristotle effectively threw up a great wall between us and them. Its stones are all the ways that we believe ourselves either unique

or vastly superior to our animal kin: our language, our tool use, our culture, our technology, our arts, our intelligence. Its mortar is the philosophical and religious teachings that grant us inalienable rights, exclusively give us souls, and paint us in the image of God (Balcombe 2006:25).

Balcombe argues that our everyday anecdotal experiences with animal others, along with the empirical observations of ethologists regarding animals' complex behavioral and mental capacities, bolster the post-Darwinian worldview of evolutionary continuity and herald that a genuine paradigm shift is underway regarding our commonly held ontological assumptions.

We must put aside the prejudices we hold towards other creatures. They are built on two thousand years of pious presumption that humans are the chosen ones, inexorably walled-off from all the others. Nourished by the inescapable knowledge that we are evolutionarily continuous with the other beasts, we are now realizing – from scientific study and empathic observation – that ours is a planet rich with other minds and experiences (*ibid.*:63).

Although many forms of anthropocentrism stubbornly cling to the Aristotelian notion of humanity's *objective* superiority and teleological entitlement, anthropocentrism that is ecologically informed can only do so in bad faith. Grey indicates the extent to which the traditional ontological assumptions have been repudiated by those within the tradition.

The intellectual history of the past few centuries can be characterized as pedestal bashing: a succession of successful demolitions of comforting myths through which we have sought to locate ourselves in the world. Freud pointed out that Copernicus was only the first in a line of innovative thinkers who overturned the comforts of a traditional world-view. First, Copernicus effectively displaced humanity from the *physical* centre of the universe. A few centuries later Darwin pointed out that humanity occupied no *biologically* privileged position. Then Freud claimed that one of our fondly cherished distinctive characteristics – *rationality* – was mostly a sham (Grey 1993:463).

Norton's concern to protect the resource base for future humans is not based on the idea that humans are *entitled* to these resources or that nonhumanity's *telos* is to serve as a resource base for humanity. It is based on the AFV, which he believes requires no further justification. As such, the ecological anthropocentrism defended by Norton does not commit the Aristotelian ontological error commonly criticized by nonanthropocentrists. Furthermore, as previously mentioned, although such an error may plausibly be associated with overexploitation, it does not necessarily preclude sustainable exploitation.

2.4 Do Humans Have Privileged Access to Reality?

A closely related ontological assumption associated with anthropocentrism is that, of all Earth's life forms, humans alone have genuine access to reality. It is this access to reality that is supposed to justify the assumption that humans are objectively superior to nonhumans. For thinkers in the rationalist tradition following Plato, the world can be divided into two realms—the sensible realm of *becoming* and the real, or true, realm of *being*. Because the realm of the senses is ever-changing and can be accessed by any viable life form capable of sensation and perception, its worth is deemed insignificant in comparison to that of the changeless realm of truth that is only accessed by rational beings. The capacity for reason supposedly grants humans privileged access to reality—it enables them to *transcend* the sensible material world inhabited by all other things on Earth and apprehend 'higher' things like truth, beauty, and value. Furthermore, transcendental access to reality is presumed to imbue humans with the absolute worth that, in the rationalist tradition, is required for membership in

the moral community. One of the most influential thinkers to support this view was Immanuel Kant, who claimed that we have the universally binding duty to treat all humans, including ourselves, as ends and never merely as means.

The human being is a being with needs, insofar as he belongs to the sensible world, and to this extent his reason certainly has a commission from the side of his sensibility which it cannot refuse, to attend to its interest and to form practical maxims with a view to happiness in this life and, where possible, in a future life as well. But he is nevertheless not so completely an animal as to be indifferent to all that reason says on its own and to use reason merely as a tool for the satisfaction of his needs as a sensible being. For, that he has reason does not at all raise him in worth above mere animality if reason is to serve him only for the sake of what instinct accomplishes for animals; reason would in that case be only a particular mode nature had used to equip the human being for the same end to which it has destined animals, without destining him to a higher end (Kant 1996:189—190).

Beings the existence of which rests not on our will but on nature, if they are beings without reason, still have only a relative worth, as means, and are therefore called *things*, whereas rational beings are called *persons* because their nature already marks them out as an end in itself, that is, as something that may not be used merely as a means (Kant 1996:79).

For environmentalists who equate nature with the material, sensible world, the transcendence assumption is interpreted as entailing that humanity's *true* place, or *higher end*, (as Kant suggests, happiness "in a future life") is not to be found within nature but instead, utterly removed from it—that humans are essentially *supernatural* beings and are thus fundamentally discontinuous with the rest of Earth's biota. Ecologically grounded nonanthropocentrists claim that this has troubling implications when it comes to environmental policies. The transcendence assumption purportedly commits those who hold it to an inherently human-favoring axiology. If it is granted that transcendental access to reality is required for an entity to possess the absolute

worth or intrinsic value needed to be morally considerable and that only persons are so qualified, the anthropogenic degradation and exploitation of species, ecosystems, and so on are not causes for direct moral condemnation unless persons are directly harmed.

Ecological anthropocentrists share many of the same worries that nonanthropocentrists do concerning the objective status of these ontological assumptions. A biologically and ecologically informed worldview entails that *Homo sapiens* is one species among many others and is part of nature rather than apart from it. According to ecological anthropocentrism, the material world *is* the real world, and rational beings cannot transcend it to apprehend a truer one, whether by mental acrobatics or by some other means. No being's access to reality is more genuine than another's, despite the vast differences that may exist regarding their knowledge *of* reality. According to an ecologically and biologically grounded view, the access that beings have to reality by means of sensation and perception differs not in kind but by degrees. Humans are certainly more knowledgeable than nonhumans about aspects of reality that are deemed important *by* humans. However, this does not justify any assumption that humans are therefore more cosmically important than nonhumans. Ecological anthropocentrists do not require the transcendence assumption to justify the ethical favoritism they exhibit toward humans. The AFV does not favor entities according to their knowledge of reality but on the basis of their humanity or the degree to which their existence promotes the satisfaction of humanity's considered preferences.

2.5 Anthropocentrism as Axiological Error

Consensus on post-Darwinian and post-Copernican suppositions of humanity's place in nature and in the universe makes it easy to dismiss the ontological errors associated with traditional forms of anthropocentrism. As Tim Hayward astutely notes, however, such dismissal does not adequately address the assumption presumed to follow such errors that only humans are morally considerable.

Now while the ontological assumption is consistent with, and may even seem to support, the ethical view that only humans are of ethical value, it does not strictly entail it; conversely, one could hold that ethical view without subscribing to an anthropocentric ontology. Therefore, the reasons there may be for refusing an anthropocentric ontology do not necessarily have any direct bearing on anthropocentrism in ethics. Criticism of the latter, therefore, cannot borrow force or credibility from criticisms of the former. An independent account is required of why anthropocentrism in ethics is wrong, and, indeed, what it *means* to overcome anthropocentrism in ethics (Hayward 1997:51).

Anthropocentrically-based environmental policies are presumed by many nonanthropocentrists to hierarchically attribute intrinsic value to humans such that humans are afforded existential rights, privileges, and protections denied to nonhumans. Nonanthropocentrists who hold this view assume that without being ascribed intrinsic value, an entity will not be acknowledged to have a good or interests of its own that entities with intrinsic value are required to recognize. Since according to most ethical frameworks—including ones typically proffered by nonanthropocentrists—an entity lacking intrinsic value is not believed to be morally considerable *in* or *for* itself, any rights it may be granted to exist will be easily overridden by the incomparably stronger rights of intrinsically valuable entities to use it as a means. According to nonanthropocentrists, since on anthropocentric views all nonhuman aspects of the

environment, biotic or abiotic, are of merely instrumental value and are viewed as a resource base, their exploitation and utilization in the pursuit of human ends are deemed justifiable—regardless of how frivolous those ends may be—as long as the costs are bearable. The pervasiveness of such views purportedly accounts for the widespread adoption of environmental policies that have collectively facilitated radical ecosystem transformations on a mounting, global scale and the ongoing mass extinction of Earth’s biota as well as the overuse of toxic and limited resources.

Callicott claims that the emergence of environmental ethics in response to humanity’s ecological predicament represents a paradigm shift in moral philosophy. According to Callicott, the paradigm shift, as was foreseen by Aldo Leopold, entails an expansion of the entities acknowledged by traditional ethics to have intrinsic value. Callicott argues that insofar as traditional ethical frameworks anthropocentrically limit their attributions of intrinsic value to humanity, they fail to provide moral reasons for criticizing humanity’s ecologically irresponsible behaviors. Although Norton’s brand of anthropocentrism provides plenty of *practical* reasons to criticize such behaviors, Callicott considers such reasons a betrayal of “the revolutionary aspirations of theoretical environmental ethics,” (Callicott 1984:299) the focus of which should be “to provide theoretical grounds for the *moral standing* or *moral considerability* of non-human natural entities, natural communities, or nature as a whole” (*ibid.*:300).

There is something clearly morally wrong about this human assault on non-human forms of life and natural systems. Normal (anthropocentric) moral theory, however, can only explicate this intuitively felt wrongness in terms of actual and potential losses of natural resources (either material or spiritual) and disruption of natural services. But there seems to be something wrong about the radical destruction of non-human life

on Earth and/or the ubiquitous replacement by human beings and human symbionts of non-human forms of life that goes beyond the diminishment of natural aesthetic amenities, or the loss of medical or other resources, or even the destabilization of the human life support system, "Spaceship Earth," (as sometimes it is called from a subconscious anthropocentric point of view) (*ibid.*:300).

Holmes Rolston expresses a similar disdain for Norton's refusal to ground his environmental ethic on the notion that nonhuman nature has intrinsic value. Although Rolston admits that "Norton is likely right enough often enough that saving species as resources. . . makes good anthropocentric sense in setting national policy" (Rolston 2009:99), he accuses Norton's anthropocentric motives of being morally *impure*.

The goods sought curve back in on ourselves, and no matter how much we enlarge the circle with increasing enlightenment, eventually the curve comes back to us and reveals the underlying motivation as self-interest, something less than fully moral (Rolston 2009:99).

Although Callicott and Rolston reject Norton's convergence hypothesis, it seems that they do so more on the basis of his presumably "less than fully moral" motives than because of the environmental policies that would be endorsed by his anthropocentrism. By attributing greater intrinsic value to wild species and the habitats they require in order to remain wild, Callicott and Rolston would tend to condone the same environmental policies as the ecological anthropocentrism defended by Norton. Even from a purely instrumental valuation of nature, it can be determined that humans should prefer a biosphere that maintains the health and viability of Earth's current biota since the costs of its degradation would be too high for humans in the long run. From a nonanthropocentric perspective that intrinsically values nature, the emphasis merely shifts such that it is noted that *both* humans *and* wild nonhumans will benefit from a

healthy biosphere and that the costs of its degradation, or loss of intrinsic value, would be too high for *both*.

2.6 How Effective Is the Concept of *Intrinsic Value* on Our Behaviors?

According to Callicott, because of the widespread belief in the developed world that humans are intrinsically valuable, our policies ensure that we treat fellow humans as ends with a good of their own—regardless of what little instrumental value they may have for us. He argues that the intrinsic valuation of humanity has had the practical effect of instilling in us a strong belief in human rights. Without such a concept, we would purportedly treat one another as mere objects.

If anthropocentric intrinsic value were not publicly recognized and legally institutionalized, we would simply dispose of one another—when that time comes—as we discard things that are of value solely instrumentally, such as broken tools, junk cars, and withered house plants (Callicott 2009:143—144).

Nonanthropocentrists like Callicott believe that if the intrinsic valuation of nonhumanity were just as common, our environmental policies would ensure that we treat it with the same respect we show to fellow humans.

One problem with Callicott's line of reasoning is that, in spite of our presumably universal respect for the intrinsic value of humanity, we have plenty of policies and practices that permit us either to treat fellow humans as means only or to ignore their vital needs. Abortion, for example, is a widely accepted practice in the environmentally sensitive, developed world and involves disposing of a human in much the same way that "broken tools, junk cars" and other instrumentally valued things are discarded. Also, in spite of the fact that there are millions of fellow humans suffering from poverty,

disease, and other misfortunes whose suffering could be greatly alleviated by our collective actions, our policies permit us to ignore their plight.⁴ If attributions of intrinsic value do not help protect or preserve humans on a global scale, on what basis should we believe they will radically alter our interactions with the environment, which encompasses the entire planet? Callicott notes that human rights to life can be overridden by utilitarian considerations but that the threshold for overriding these rights is “very high indeed.” It is true that, except for cases involving fetuses in the early stages of development, our policies enforce negative duties to avoid unjustifiably harming fellow humans. However, our policies do not enforce positive duties to preserve or protect the lives of fellow humans apart from in those circumstances in which we are broadly recognized to be responsible for their care. Such circumstances are typically familial. Thus, the human right to life, which is presumably based on the notion of humanity’s intrinsic value, is more easily overridden than Callicott suggests. Besides, racism, sexism, xenophobia, classism, and other institutionalized forms of human devaluation are still prevalent in modern societies even though Callicott assumes that universal acknowledgement of humanity’s intrinsic value means such societies are ready for the next evolutionary step in morality—to embrace the land ethic, or nonanthropocentrism. If such societies are overtly influenced by an anthropocentric axiology that values humanity intrinsically, it is problematic to assert that anthropocentrism pertains solely to their members’ negative interactions with the

⁴ I return to this topic in Chapter Three.

environment but not to their negative interactions with one another or to their lack of concern for other humans separated from them by space and time.

Both intrinsic and instrumental valuations are expressed in various degrees according to a valuer's context, and things that are considered instrumentally valuable are often afforded greater rights, privileges, and protections than things that are purportedly intrinsically valuable. For example, pet owners who believe that humans alone are intrinsically valuable still tend to favor preserving the lives of their pets over the lives of humans with whom, through the vicissitudes of the natural lottery, they are unacquainted. The nonanthropocentric critique, however, cannot adequately explain why vast numbers of people—presumed to be under the sway of an anthropocentrism that values humans intrinsically but nonhumans instrumentally—so readily purchase food and luxury items for their pets while disregarding fellow humans who are undernourished, abandoned, or impoverished. Indeed, as research by Sena De Silva and Giovanni Turchini indicates, consumers in the West expend a tremendous amount of resources on their pets that we might think would instead be spent on fellow humans if a belief in humanity's intrinsic value in fact accounted for their behavior.

The market for pet food and pet care products has been reported to be growing at an annual average rate of 4% in value terms and reached US\$49 billion in 2003, with pet food representing about 80% of the global pet industry market. Recent market research also reported that the pet food market has been experiencing a trend towards premium and super-premium products. It has been hypothesized that pet owners are treating their companions progressively more as a family member, and consequently, expenditure on pet food is growing. Premium and super-premium cat food often include high content of chopped or whole forage fish such as pilchard and sardines, and in some instances even tuna (De Silva and Turchini 2008:460-461).

The central issue is not an advocacy of pets versus aquaculture or other agricultural/animal husbandry activities, but the need for a more objective and a pragmatic approach to the use of a limited and a decreasing biological resource, for human benefit (*ibid.*:465).

Of course, not all who are human-centered are pet lovers. Anthropocentrists who appeal to humanity's intrinsic value and consistently favor humans over nonhumans may nevertheless disagree about whether the ultimate locus of such value is genetic humanity or personhood. If the locus of value is genetic humanity, as it is for simple humanism, then fetuses and humans declared brain dead are just as intrinsically valuable as any fully functioning human is. If, by contrast, what is intrinsically valuable is personhood—a cluster concept of such ideal human traits as sentience, self-awareness, abstract linguistic communication, autonomy, moral agency, and so on—then there are plenty of humans who lack intrinsic value altogether, some have more intrinsic value than others (by virtue of having either more traits characteristic of personhood or some traits to a greater degree), and some nonhumans might have intrinsic value comparable to or surpassing that of humans.

If the policies that permit abortion are based on the concept of intrinsic value, it is the intrinsic value of persons rather than of humans since these policies imply that the rights, interests, or preferences of persons outweigh those of humans and in the case of *actual* persons trump those of persons who do not yet exist. For personalists such as Alberto Giubilini, although fetuses and infants are already *actual* humans, they can only count as *potential* persons—“people who will exist, unless we perform some act, for example, an abortion, or unless something naturally happens that causes [them] to die” (Giubilini 2012:50). Every embryo, fetus and infant on the planet is accordingly a

potential person with merely potential rights to exist. Because they lack the cluster of traits required for personhood, they cannot be harmed by anything that we do. *Possible* persons, on the other hand, do not actually exist but are merely theoretical—“people who will exist, provided that some action is performed, such as fecundation of an ovum,” (*ibid.*:50) or that something natural happens that causes them to exist. Since possible persons lack any traits of personhood, they cannot be harmed by our actions, either.

Giubilini is aware that his argument could be construed as implying that we should not have any obligations to persons of the distant future. For example, we need not worry about the environmental conditions they will face as a result of our current behaviors. Since they do not exist and cannot be harmed by us, any sacrifices we make on their behalf to preserve or protect a ‘healthy’ biosphere with a stable resource base would presumably be supererogatory. In order to avoid dealing with such implications, Giubilini defines *future* persons thusly.

By “future people” I simply mean people who do not exist yet and who *will* exist in a time distant from now, regardless of what choices we make now. For example, the people who will inhabit this world in the year 2150 are to be considered “future people,” even though we do not know *who* they will be. In the same way, the son a woman will have, *if she has any son at all in the future*, is a “future person.” The expression “future people” can be taken as equivalent to the expression “*actual* people of the future” (*ibid.*:50).

By conceiving of future persons as “*actual* people of the future,” Giubilini places them in the same moral category as *actual* persons of the present. Thus, he can claim that if we have obligations to maintain a healthy resource base for current persons, we have similar obligations to do so for those in the future. Giubilini defines future people as those who will exist “regardless of what choices we make now.” However, we should

not be fooled by his definitional sleight of hand since it fails to appreciate the key insight from Derek Parfit's paradox that people who exist in the future will do so precisely *because of* the choices we make now. Even slight alterations in the meetings of future breeding pairs (which will be determined by the choices we make now) will result in entirely different offspring with unique genetic, phenotypic, and ontogenetic characteristics. In this regard, future persons *are* possible persons. They 'exist' in a more distant future, but this should not grant them more actuality than is granted to possible persons who are temporally closer to us. If anything, their status as persons should be less actual since the details of their existence are less foreseeable. Although environmentalists may disagree about whether or not nonhumans should be intrinsically valued, they converge on an insistence that entities in the future should be fairly represented in our moral deliberations. It is for this reason that the person-affecting bias as expressed by Giubilini would not provide a coherent basis for informing environmental policies.

2.7 The Person-Affecting Intuition and Parfit's Paradox

According to the person-affecting bias, or intuition, if an action or policy is to be construed as *good* or *bad* in a morally relevant sense, it must at least be good or bad for some *person*. In other words, only persons can be harmed. An entity must therefore express, or in a less restrictive sense, be capable of expressing, personhood if it is to gain full admittance to the moral community. Although some personalists are willing to recognize personhood in nonhumans, there is much controversy concerning whether or not there are in fact any nonhuman persons, and the number of nonhumans that qualify

as potential candidates for personhood is miniscule. Thus in practice, the bias almost universally picks out the set of humans who have the relevant cluster of person-imbuing traits. Nonanthropocentrists reject the notion that persons alone can be harmed on the grounds that nonhuman aspects of Earth have a good of their own which can be violated by humans. According to Callicott, for example, harms are committed when humans thwart the 'normal' existential trajectory of 'natural' kinds of being. "*A thing is right when it tends to disturb the biotic community only at normal spatial and temporal scales. It is wrong when it tends otherwise*" (Callicott 1999:138). For example, regardless of whether or not their members exhibit any personalistic traits, species are harmed when they are anthropogenically extirpated at rates that exceed the natural, background rate of extinction. Because the person-affecting bias does not recognize such harms, nonanthropocentrists claim, it cannot serve as the basis of a reasonable environmental policy.

Despite this point, it should be noted that membership in humanity's moral community is not required in order for an entity to be granted strong existential rights. Although a personalist may grant *stronger* existential rights to organisms that exhibit personalistic traits, life forms may nevertheless be protected for reasons that are pragmatically human-serving. Mary Anne Warren explains:

We need to reject fallacious forms of anthropocentrism; but not all forms of anthropocentrism are fallacious. It is not fallaciously anthropocentric to give priority in our moral deliberations to living things which are close enough to us in time and space to be affected by our actions, and close enough that their fate will affect us or future human generations. Nor is it illegitimate to recognize stronger moral obligations to those living things which resemble human beings in morally significant respects. (Warren 1997:44)

Parfit identifies a deeper problem arising from the person-affecting intuition. Environmental policies that are person-affecting or otherwise emphasize the rights of identifiable individuals are only coherent on brief scales of time. Although exercising our current rights to frivolously and unsustainably consume toxic or limited resources may foreseeably decrease the quality of life possible for many humans who will likely be born a few centuries from now, alternative policies that would restrict such rights could, for all we know, turn out much worse for them. After all, significant alterations to our current lifestyles will also alter the conditions that will determine whatever future beings exist.

Suppose that we are choosing between two social or economic policies. And suppose that, on one of the two policies, the standard of living would be slightly higher over the next century. This effect implies another. It is not true that, whichever policy we choose, the same particular people will exist in the further future. Given the effects of two such policies on the details of our lives, it would increasingly over time be true that, on the different policies, people married different people. And, even in the same marriages, the children would increasingly over time be conceived at different times. As I have argued, children conceived more than a month earlier or later would in fact be different children. Since the choice between our two policies would affect the timing of later conceptions, some of the people who are later born would owe their existence to our choice of one of the two policies. If we had chosen the other policy, these particular people would never have existed. And the proportion of those later born who owe their existence to our choice would, like ripples in a pool, steadily grow. We can plausibly assume that, after three centuries, there would be no one living in our community who would have been born whichever policy we chose. (It may help to think about this question: how many of us could truly claim, 'Even if railways and motor cars had never been invented, I would still have been born'?) (Parfit 1984:361)

In spite of our current judgment that further ecological degradations would make the Earth an unfit home for future humans, Parfit argues that many who would

exist in such a future would deem their lives worth living and would prefer existence over nonexistence. If policies are based on the interests of future humans such as these, almost any policy can be justified. Robin Attfield explains:

Our obligations cannot simply consist in advantaging them or in not harming them, since their very existence would depend on present choices, and they would not exist otherwise. So we cannot ask whether one policy or another would harm or benefit them, as there is no possible alternative impact of our actions on them with which to compare the quality of life that they are likely to have if we choose policies that bring them into being. To harm someone has usually been regarded as implicitly making him or her worse off than he or she would have been otherwise; but such a person is someone who would not have existed otherwise, that is, in the absence of these policies. But if this is the case, then most of such people cannot be harmed (Attfield 2007:365).

Such considerations led Parfit to reject the person-affecting intuition and to claim that ethical considerations should instead be essentially impersonal. As both Parfit and Attfield conclude, it would be wise to care about our impacts on the quality of life of future humans even if such beings presently have no discernible identity and cannot, by Parfit's argument, be harmed by what we do. Such concern for the future exemplifies anthropocentrism at the species level, or ecological anthropocentrism. At the level of the individual, anthropocentrism devolves into egoism and is thus reduced to spatiotemporal scales that are only relevant to individuals—typically, no more than a handful of generations.

Although all forms of anthropocentrism preferentially value humanity, such preference can be manifested individually or collectively. Ecological anthropocentrism pluralistically values humanity in its most collective form, at the level of the species. Roughly speaking, what is ultimately *valuable* for, *good* for, or in the *interests* of a

species is its long-term evolutionary *success*. To some extent, such success can be measured as the species' persistence in the geologic record. Since the Pleistocene, *Homo sapiens* has exhibited impressive geospatial persistence; however, this successful proliferation has thus far been brief. A sufficiently broad and long-sighted valuation of the human species entails simultaneously valuing the ecosystems and nonhumans that will plausibly enable human societies to persist on a geologic scale of time. Even if ecosystems and nonhumans are thereby only instrumentally valued for promoting long-term human interests, such valuation obstructs policies that permit ecological degradation. In fact, it will converge with "reasonably interpreted" forms of nonanthropocentrism and lead to policies that promote the preservation or conservation of ecosystems, biodiversity, and so on.

2.8 Implications for the Ineliminability of Perspectival Anthropocentrism

Founders of the emerging branches of environmental and animal philosophy have been largely united in defining their positions as a condemnation of, and an attempt to offer alternatives to, the human-centered worldviews that have historically dominated philosophical narratives. But even though environmental and animal philosophers have been highly critical of anthropocentrism, their critiques have nevertheless reflected human systems of value. Ultimately, in spite of their condemnations of human-centered worldviews, they typically find ways to introduce humanistic or personalistic elements through the back door without considering themselves human-centered for doing so. This suggests not only that something is ineliminable about anthropocentrism, but that anthropocentrism itself is not really the

problem targeted by these thinkers. If so-called nonanthropocentric worldviews are capable of informing what Norton would consider “reasonable” environmental policies, it is only because of their human-centered foundation. Callicott, for example, freely admits that his nonanthropocentrism is humanistic in the sense that “intrinsic value ultimately depends on humans” (Callicott 1984:305).⁵ Like other nonanthropocentrists, Callicott also formulates second-order priority principles that conveniently adjudicate in favor of humans in many instances in which their interests conflict with those of nonhumans.

The land ethic is intended to supplement, not replace, the more venerable community-based social ethics, in relation to which it is an accretion or addition. ... Choice among which community-related principle should govern a moral agent’s conduct in a given moral quandary may be determined by the application of two second-order principles. The first, SOP-1, requires an agent to give priority to the first-order principles generated by the more venerable and intimate community memberships. Thus, when holistic environment-oriented duties are in direct conflict with individualistic human-oriented duties, the human-oriented duties take priority. The land ethic is, therefore, not a case of ecofascism. However, the second second-order principle, SOP-2, requires an agent to give priority to the stronger interests at issue (Callicott 1999:75).

Although it would appear that a nonhuman’s basic survival represents a stronger interest than a human’s desire for meat, Callicott does not argue that humans should resort to cruelty-free foraging. His second-order principles, in other words, do not seem to require humans to forego most of the interests, preferences, and values generated by a strict adherence to their community’s established, human-centered, first-order ethical

⁵ Callicott later softened this statement somewhat by claiming that value may be “vertebragenic, since nonhuman animals, all vertebrates at the very least, are conscious and therefore may be said, in the widest sense of the term, to value things” (Callicott 1992:138). In a recent conversation, Callicott did not disagree with my suggestion that all organisms that perceive the world may be said to value it.

principles. Ultimately, “the duties attendant upon citizenship in the biotic community (to preserve its integrity, stability, and beauty) do not cancel or replace the duties attendant on membership in the human global village (to respect human rights)” (*ibid.*:71—72).

Some thinkers have questioned the overall coherence of a nonanthropocentric worldview. If humans and what humans care about are not accorded preference, then on what basis can human individuals or societies adjudicate in favor of one organism, species, or ecosystem over any other? As Hayward argues, there is a sense in which it is impossible for a human to formulate a *genuinely* nonanthropocentric axiology.

As long as the valuer is a human, the very selection of criteria of value will be limited by this fact. It is this fact which precludes the possibility of a *radically* nonanthropocentric value scheme, if by that is meant the adoption of a set of values which are supposed to be completely unrelated to any existing human values. Any attempt to construct a radically non-anthropocentric value scheme is liable not only to be arbitrary – because founded on no certain knowledge – but also to be more insidiously anthropocentric in projecting certain values, which as a matter of fact are selected by a human, onto nonhuman beings without certain warrant for doing so (Hayward 1997:56).⁶

According to Grey, if it were possible to rid ourselves of perspectival anthropocentrism, only stupendous luck would guarantee that our environmental policies were beneficial to humanity.

Once we eschew all human values, interests and preferences we are confronted with just too many alternatives, as we can see when we consider biological history over a billion year time scale. The problem with the various non-anthropocentric bases for value which have been

⁶ The point made here is not that nonhuman values cannot exist independently of humanity. Regardless of whether or not such values exist, any thoughts a human can entertain about them are inextricably filtered through a human lens. In other words, *human values = values humans have*.

proposed is that they permit too many different possibilities, not all of which are at all congenial to us (Grey 1993:473).

Warren states the problem thusly:

We are not gods but human beings, reasoning about how we ought to think and act. Our moral theories can only be based upon what we know and what we care about, or ought to care about. If this makes our theories anthropocentric, then this much anthropocentrism is inevitable in any moral theory that is relevant to human actions (Warren, 1997:43).

If a nonanthropocentric perspective were genuinely free of human relatedness, it would display no preference for environmental conditions that promote human existence. If nonanthropocentrism is egalitarian, or fair to all aspects of nature, as in holistic rationalism, it can provide no non-question-begging justification for favoring the existence of any particular organism, species, or ecological condition rather than another. Although from an anthropocentric perspective, it is distressing to note that biotic recoveries can take millions of years after a mass extinction event or that anthropogenically disturbed ecosystems may never 'return' to their pre-disturbance states, a "suitably broad and long-sighted" nonanthropocentrism would be utterly indifferent. As ecologists point out, in any ecological disturbance, there are not only losers but also winners.

Environmental disturbances are often viewed only in terms of their harmful impacts on the affected species. However, in any disturbance some species will benefit. If that disturbance is widespread and persistent, the beneficiary species will expand their range and replace those that cannot survive (McKinney and Lockwood 1999:450).

Anthropogenic factors that environmentalists construe as destructive to nature can be seen as creative when viewed in a larger context. After all, we are the result of the biosphere's capacity to bounce back from catastrophic events such as those that ended

the Permian and Cretaceous time periods. Were it not for massive ecological disturbances periodically occurring throughout the geologic past, the ecosystems and species that humans care about and want to protect would never have existed. The current, human-induced mass extinction event also has a silver lining if viewed from a holistic rationalist's nonanthropocentric perspective. While it may be bad for Earth's tenured biota, that is only a temporary setback. If we consider that a biotic 'recovery' has followed every mass extinction so far, including the end-Permian event that resulted in a loss of possibly 95% of all species, a similar recovery after the anthropogenic mass extinction is certainly plausible.

2.9 What Would Genuine Nonanthropocentrism Entail?

What sort of environmental policies would a legitimately nonanthropocentric axiology entail? Perhaps the strongest support for Norton's convergence hypothesis is that in order for the views of nonanthropocentrism to be "reasonably interpreted," they must adjudicate in favor of (reasonable) human biases. In other words, they must already be, in an important sense, anthropocentric. As Grey notes, on the broad spatiotemporal scale according to which nature, life, the biosphere, and so on are intrinsically valued as having a good of their own, there do not appear to be grounds for declaring any particular assemblage of species and ecosystems to be better than another.

If the concerns for humanity and nonhuman species raised by advocates of deep ecology are expressed as concerns about the fate of the planet, then these concerns are misplaced. From a planetary perspective, we may be entering a phase of mass extinction of the magnitude of the Cretaceous. For planet Earth that is just another incident in a four and a half billion year saga. Life will go on – in some guise or other. The

arthropods, algae and the ubiquitous bacteria, at least, will almost certainly be around for a few billion years more. And with luck and good management, some of the more complex and interesting creatures, such as ourselves, may continue for a while longer as well. Of course our present disruptive and destructive activities are, or should be, of great concern to us all. But that is a quite properly human concern, expressing anthropocentric values from an anthropocentric perspective (Grey 1993:468—469).

The fundamental problem is that we can rank preferences only given some anthropocentric bearings. An austerely ecocentric or biocentric perspective delivers no determinate answer as to which of the abundant and wonderfully various unfolding planetary biotas should be preferred (Grey 1993:470).

A genuinely nonanthropocentric axiology cannot be humanistic in the sense that it provides priority principles that favor our particular species.

In fact, one could plausibly argue that genuine forms of nonanthropocentrism would require aggressively misanthropic policies. Consider what would be implied by an ethic founded on a genuinely nonanthropocentric formulation of the Axiom of Future Value.

The continuance and thriving of *all species* (and their evolutionary successors) is a good thing, and every generation (of humans) is obliged to do what is necessary to perpetuate that good. The obligation to perpetuate and protect all species is therefore accepted as a fundamental moral axiom, which exists independently of obligations to individuals (*adapted from Norton 1991:216*).

Notice that since this axiom values *all species*, *Homo sapiens* is included. However, there are at least a couple of reasons that *Homo sapiens* might not fare so well from any policies that the axiom would implicitly endorse. If we are obliged to do what is necessary to ensure that *all species* continue to exist *and* to thrive, a conflict of interests is evident. One could argue that as long as humans exist, it is impossible for *all species*

to thrive. The anthropogenic restructuring of Earth's resources has already precluded the possibility that many extant nonhuman species will thrive, especially those that have become endangered as a result of humanity's presence. Many others have been displaced from the habitats in which they would 'naturally' thrive. If by favoring *all* species, it is implied that the greatest number of species should be allowed to exist, the nonanthropocentric conservationist would likely sacrifice our single species for the benefit of the rest. Furthermore, nonanthropocentrists typically argue that an adequate environmental ethic "should provide differential intrinsic value for wild and domestic organisms and species" (Callicott 1984:304). Since humans are highly domesticated, it would seem that they should be valued less than the nonhumans that would count as wild.

If the nonanthropocentrist's axiom were modified to call for the continuance and thriving of all wild, undomesticated, and otherwise naturally occurring species, it would seem that very few, if any, humans could qualify. Perhaps one could argue that the continuance and thriving of globalized human societies is a necessary evil since they can develop vaccinations and other medical treatments that will promote the continuance and thriving of wild nonhumans. This argument would also fail for a couple of reasons. The "natural" background rate of species extinctions was very low when humans did not exist, and diseases have almost never been identified as the primary cause of a species' extinction. On the other hand, because of human encroachment and various other anthropogenic factors, nonhuman species are disappearing at up to 10,000 times the natural rate. The number of wild species that human technology could save from

extinction is incomparably lower than the number that would become extinct as a result of human technology. If we were to do what is necessary to perpetuate the continuance and thriving of all wild species, we should at least be obligated to 'return' humanity to a condition of sustainable living. As noted by Lisa Newton, this would require the planet's human population to be greatly reduced.

There is a way for human beings to live completely sustainably on this earth, in a way that leaves no "environmental footprint" at all, and we did it for millions of years, or at least tens of thousands (depending on how you set the borders of "we humans"). The life that is totally environmentally sustainable (that is, can be carried on *indefinitely* without compromising its biological support system at all) is called "foraging," or "hunting/gathering." This is the way every species except the human species lives – whatever nature has provided in the way of edibles, the creatures find and consume, usually according to patterns very stable over time. It is not clear how many people the earth could sustain in this manner; possibly one-tenth of one percent of the number currently living on the earth, or six million souls. The yield of human food per acre in the wild is not large, and if several human groups foraged in the same territory, there could come a time when there would not be enough for all, and the weaker groups would be crowded out, or driven off, and would starve. That is the way it happens with every species other than the human. Eventually, had we remained foragers, the human population would have spread into all viable zones in numbers that could be sustained, and the population would have leveled off at about six million. The story of human life, development, existence, and eventual extinction, would have followed the pattern of every other species – or at least, the pattern that every other species would have followed had not human beings intervened (Newton 2005:2).

Newton does not mention the evidence that links foraging humans with the onset of the current anthropogenic mass extinction event. As early humans left Africa and Eurasia, their appearance in novel territories is strongly correlated with the extinction of most of the large mammalian species along the path of their invasion, suggesting that they foraged at unsustainable levels. It seems likely that groups of hunter-gatherers could

only forage sustainably if they were highly educated about ecology and biology and highly motivated to preserve and conserve all the species affected by their activities. It also seems likely, however, that humans are far too bored and clever to ever be satisfied with a foraging lifestyle. Thus, the pipe dream of a 'return' to such a lifestyle is, as Newton admits, simply not feasible.

With these considerations in mind, it may be further argued that nonanthropocentrists who succeeded at expunging all vestiges of human-favoring biases might be morally obligated to assist in hastening humanity's extinction since humans are so inherently destructive to the biosphere. Perhaps what ultimately prevents a nonanthropocentrist such as Paul Taylor from advocating such misanthropy is that his nominally nonanthropocentric axiology limits *moral* rights to members of rational species such as ours. Like Callicott, Taylor also formulates priority principles that conveniently favor humans when it comes to many conflicts of interest. Taylor nevertheless clearly states what many environmentalists imply—that Earth's biotic communities would be better off if humans weren't around to mess things up for them.

If, then, the total, final, absolute extermination of our species (by our own hands?) should take place and if we should not carry all the others with us into oblivion, not only would the Earth's community of life continue to exist, but in all probability its well-being would be enhanced. Our presence, in short, is not needed. If we were to take the standpoint of the community and give voice to its true interest, the ending of our six-inch epoch would most likely be greeted with a hearty "Good riddance!" (Taylor 1981:209).

Holmes Rolston has made the similarly misanthropic claim that any human being is essentially "a cell of cancerous growth" (Rolston 1996:259) if born into a situation in which the carrying capacity of his or her habitat has been exceeded or in which s/he

must compete with an endangered species like the black rhinoceros. If such a human is indeed cancerous as Rolston suggests, then surely the diagnosis implies, if not demands, a policy of excision. Of course, since nonanthropocentrists in general avoid adopting the misanthropy implied by a genuinely nonanthropocentric worldview but instead anthropocentrically favor an Earth that is inhabited by humans—in spite of the perceived negative effects of human existence on nature—perhaps their value theories should be considered deprecatory attempts at ecological anthropocentrism.

2.10 A Not-So-Ignorant Intertemporal Rawlsian Veil

In order to consider what environmental policies would likely be in the interests of future generations, one must adopt something analogous to John Rawls' veil of ignorance. Behind the veil, we can determine which present policies are acceptable or preferable to individuals in various imaginable futures. In order to avoid Parfit's paradox, however, Rawls' veil must allow for the Smilanskian regret that was discussed in Chapter One. Parfit notes that even the most rationally indefensible policies will produce future humans who, because they would not have existed if alternate policies had been adopted, will consider their lives to be worth living. It will therefore be in their best interests if the policies that facilitated their existence were unchanged. Of course, in Rawls' original formulation, the veil renders its wearer ignorant of what policies may have led to the wearer's existence. Rawls' veil was meant to be a tool for deciding upon ethical principles that are fair to all rational beings, regardless of where they exist in space-time. The veil we need is different. What we seek is a veil that will help to create environmental policies that will be endorsed by rational beings of the

present and indefinite future. In Rawls' formulation of the veil, many of the characteristics that could be useful in considering what sorts of environmental policies persons should favor have been removed. Examples are a "conception of the good," a "rational plan of life," and "information as to which generation they belong" (Rawls 1999:118). The veil we require for environmental policy analysis must have less ignorance adhering to it. In the modified Rawlsian intertemporal veil, the environmentalists identified by Norton's convergence hypothesis retain their rationally defensible worldviews, which include an ecologically and biologically grounded conception of the good, along with a rational plan of life that would necessitate favoring considered preferences over felt ones. Furthermore, the wearers of the veil must project themselves into specific imaginable futures and consider what effects on the environment have resulted because of currently existing or currently proposed environmental policies. Although it is often stated that we cannot know what future humans will want or need from us, we can be extremely close to certain that persons of the future will want and need access to clean air, clean water, unpolluted and fertile soil, etc. Thus, there are certain policy decisions that we can safely assume almost all future environmentalists would condone, regardless of how far into the future such persons are projected. In order to test the strength of Norton's convergence hypothesis, we should consider whether behind the veil there is convergence regarding the environmental policies that would be condemned and condoned by ecological anthropocentrists and "reasonable" nonanthropocentrists.

2.11 A Convergence of Smilanskyan Regret

Just as we would not have existed without some horrific events occurring in history, future humans cannot have their existence decoupled from the deplorable environmental conditions that current humans help bring about. From behind the modified Rawlsian veil, one thing that future environmentalists with rationally defensible worldviews will have in common is their moral condemnation of current humanity's effect on Earth's ecosystems, biodiversity, rates of species extinction, climate change, and so on. They will undoubtedly provide different reasons for their moral condemnation. Anthropocentrists, for example, will lament the impoverishment of the resource base, while nonanthropocentrists will decry the harms done to anthropogenically extirpated species and degraded ecosystems. Nevertheless, they will equally consider themselves justified in morally condemning the selfish, short-term policies of our generation even if alternative policies would have rendered them nonexistent. As Saul Smilansky suggests, one can test the plausibility of this assumption by considering one's attitudes toward a horrific past event that cannot be decoupled from one's own existence, such as the Holocaust or the practice of slavery in America. Insofar as the policies we institute are detrimental to ecosystem stability, biodiversity, extinction rates, climate change, and so on, we will give future persons reasons to experience Smilanskyan regret. They will regret the deplorable conditions that were necessary in order for their existence to become actual. It will also be the case that, even if we act in an environmentally responsible manner, their existence will still be tied to the same atrocities of the past that we find regrettable. Nevertheless, insofar as they

condemn what came before us but condone our environmental policies, we at least avoid adding to their regrets.

If ecological anthropocentrists and “reasonable” nonanthropocentrists put on the modified Rawlsian veil, they will likely discover that their future counterparts converge regarding the environmental policies they would universally condone. On the other hand, we harm ourselves and prevent ourselves from flourishing by engaging in actions that are universally construed as morally reprehensible by rational environmentalists of the future. Perhaps here one finds a negative, contextual formulation of the categorical imperative. Instead of morally permissible actions being those that proceed according to maxims that would be condoned by all rational beings regardless of context, morally permissible actions are those that, considered within their contexts, would not be condemned by all rational beings—particularly those beings of the distant future who may be in the best position from which to judge current environmental policies.

2.12 Does Norton’s Convergence Hypothesis Make Sense?

Norton’s convergence hypothesis makes sense if one keeps in mind that it only applies to a “sufficiently broad and long-sighted” form of anthropocentrism and a “reasonably interpreted,” “consistent,” and “coherent” form of nonanthropocentrism. Insofar as most so-called nonanthropocentrists openly promote humanity’s existence over its extinction and seek to preserve biospheric stability, biodiversity, and ecosystemic health for the good of humans and nonhumans alike, their aims are not significantly different from those of ecological anthropocentrists. Although they may

occasionally admit the normative incoherence of biocentric or ecocentric egalitarianism or confess that the Earth would be better off without humans, nonanthropocentrists do not generally argue that human existence is inherently bad or that humans should prefer not to exist. However, given the impact of *Homo sapiens* on Earth's mostly nonhuman biota, it is doubtful that a genuinely nonanthropocentric ethic accurately gives voice to Earth's nonhuman interests so long as it advocates our species' continuation over its annihilation. The distinctions that nonanthropocentrists have highlighted between their worldviews and anthropocentrism in general do not apply to ecological anthropocentrism. Ecological anthropocentrism does not base its human-favoring biases on questionable, pre-Darwinian ontological assumptions regarding humanity's cosmic significance. Nor does ecological anthropocentrism assume that humans or even persons alone can be harmed or are intrinsically valuable. It is simply based on the largely unquestioned belief that a universe in which humans exist is preferable to one in which they are extinct.

Since the foremost requirement for any viable life form to realize a good life is for it to have a good environment—one that promotes and ensures the *health* of the species (and not merely the health of the individual organism)—it would seem to follow that, if we wish to ensure a better future for humanity, we should at least be as concerned for the cumulative effects of our collective behaviors on Earth's environments as we are for their immediate effects on current human populations. Because humans are key biotic components of our planet's biosphere, whatever members of our species do to the environment will ultimately impact humanity's future.

A naturalistic view of *Homo sapiens*, insofar as it acknowledges the long-term needs of our species within the context of its environmental situatedness, evolutionary history, and dependence upon other life forms, overtly promotes the adoption of human-environment interactions that will not overtax or abuse the species, ecosystems, and resources needed for future human generations to live well on a geologic scale of time. The policies advocated by such a species-embracing anthropocentrism must be good for future as well as current humans. Human livelihoods ultimately depend on stable ecosystem processes, which themselves depend on the complex interactions of diverse biotic communities scattered around the globe. If *Homo sapiens* is to persist as a viable species on a geologic scale of time, it will require environmental conditions that are conducive to the viability of many nonhuman species as well. Ecologically anthropocentric policies will therefore tend to overlap with those advocated by nonanthropocentric thinkers.

Chapter Three: On the Moral Relevance of a Geologic Scale

3.1 The Limitations of an Individualistic Ethic

Whether they consider themselves anthropocentrists or nonanthropocentrists, environmental thinkers typically agree that orthodox ethical theories are too short-sighted and individualistic to adequately deal with humanity's ecological predicament. Although a handful of environmentalists retain fundamentally individualistic axiologies, most argue that we have (or *should have*) stronger moral obligations to avoid harming species, habitats, communities, ecosystems, and so on than we have to avoid harming individuals. Bryan Norton insists that, in addition to being long-sighted, "an adequate environmental ethic is distinctive, not by being necessarily nonanthropocentric as many environmental ethicists have argued or assumed, but, rather, by being nonindividualistic" (Norton 1984:139). Traditional ethical frameworks are built upon moral principles that are presumed to be universally applicable to *all* humans, agents, or rational beings, regardless of where they exist in space or time. However, the spatiotemporal scale according to which actions are traditionally morally evaluated does not include all such beings but is restricted to scales that are experientially relevant to individuals, especially those that currently exist. Given the brevity of a human lifespan, it may seem that the actions of any given individual are generally not sufficient to radically alter the environment or otherwise greatly impact *Homo sapiens'* evolutionary success. This certainly follows if the spatiotemporal scale of moral evaluation is limited to what we as individuals can directly experience or affect. However, anthropogenic mass extinction, global warming, and other dystopic features of humanity's ecological predicament arise

from *collective* human action, with effects that are both spatially and temporally far-reaching. Actions that appear benign on a short-term scale, if performed by enough individuals across space and time, cross a threshold and turn out to be collectively malignant. Thus, environmentalists emphasize the need to evaluate our actions according to not only their individual, immediate effects but also their collective, long-term impacts. Humanity's unchecked exploitation of fossil fuels, for example, generates untold benefits for many individuals, but it also leads to acid rain and global warming, each with far-reaching, negative ecological consequences.

Individuals experience life within such tiny slivers of space-time that it is difficult for them to comprehend the larger ecological contexts of which they are components. From an ecologically anthropocentric perspective, an individual human belongs to a series of communities or collectives that are hierarchically nested, the most important of which is *Homo sapiens*. Nonanthropocentrically, the most important collective is the community of life or the biosphere. Although individuals and the communities to which they belong have highly variable patterns of consumption, with correspondingly variable impacts on the environment, humanity's current overall population size, resource utilization, and global dispersal place *Homo sapiens* among life forms, such as insects and microbes, that leave a genuinely global footprint. As Craig Dilworth notes, "The human population is 'swarming;' we are behaving like an r-selected species" (Dilworth 2010:374). R-selected species, or r-strategists, opportunistically fill available niches as a result of their fecundity and the rapid dispersal of their offspring. Such a species' 'strategy' is for its members to produce as many offspring as possible so that enough of

them will survive whatever unpredictable selection pressures they face and continue the cycle of mass reproduction. Although individual humans certainly do not reproduce at the rate of individual r-strategists, Dilworth's observation concerns the fact that since the industrial revolution humans have *collectively* reproduced and dispersed at exponentially increasing rates. Satellite images of the Earth at night reveal the extent to which humans have infiltrated the globe. The artificial lights of human habitations wrap around the planet like glowing impact craters. If we could see time-lapse satellite images of the Earth over the last couple of centuries, humanity's global swarming would look eerily similar to the explosive growth of a bacterial colony within a Petri dish. This sort of observation has led some environmentalists, such as Holmes Rolston, to label humanity as pathogenic. Given humanity's influence on Earth's long-standing biotic communities, its function within ecosystems seems to be that of an infestation.

I have argued in the preceding chapters that despite widespread acknowledgement among nonanthropocentrists that Earth's "well-being would be enhanced" (Taylor 1981:209) if the "cancerous growth" of humanity (Rolston 1996:259) were excised, such thinkers nevertheless converge with anthropocentrists by exhibiting a preference for "*our* world (with us in it!)" (Callicott 1984:304). As demonstrated in Chapter One, nonanthropocentrists typically would not be willing to restore the biosphere to its 'natural' state of integrity, stability, and beauty if, as seems likely, it required our species' extinction. Recall Norton's insistence that this implies an acceptance of the Axiom of Future Value (AFV):

The continuance and thriving of the human species (and its evolutionary successors) is a good thing, and every generation is obliged to do what is

necessary to perpetuate that good. The obligation to perpetuate and protect the human species is therefore accepted as a fundamental moral axiom, which exists independently of obligations to individuals (Norton 1991:216).

Individual humans are not points of singularity but are fundamentally inseparable from their species and the nested hierarchies of various communities, purely human and mixed human-nonhuman, to which they belong and without which they could not exist. A short-sighted anthropocentrist or nonanthropocentrist could reject the AFV and argue that the only morally relevant hierarchies are those that exist in the present. However, any rationally defensible ideology that champions the interests, preferences, and values of a species must expand its concerns to encompass all the species' members rather than those that are specifically identifiable—i.e., individuals currently or imminently existing. Taking into account the interests, preferences, and values of a species also requires an appropriate valuation of the ecological conditions that promote its long-term evolutionary success. Since the evolutionary success of *Homo sapiens* and other megabioc species that environmentalists are keen to protect can be roughly measured according to their persistence in the geologic record, environmentalists should call for human actions to be morally evaluated within the larger context of a geologic spatiotemporal scale. Individual and collective actions that are foreseeably detrimental to the long-term stability of “the resource base” (Norton 1984:143) are also those that jeopardize the evolutionary success of all extant species. If human actions are evaluated on scales that are short-sighted and individualistic, most humans are essentially blameless for their role in facilitating the anthropogenic ecological predicament facing Earth's present and future beings.

3.2 Can a Geologic Scale Be Morally Relevant?

Although environmentalists are critical of the individualistic spatiotemporal scales according to which actions have been traditionally appraised by moral philosophers, they generally claim, as does anthropocentrist William Grey, that a geologic scale “is not relevant for reflections about (or the regulation of) human conduct” (Grey 1993:467). Grey claims that:

If we attempt to step too far outside the scale of the recognizably human, rather than expanding and enriching our moral horizons we render them meaningless, or at least almost unrecognizable. The grand perspective of evolutionary biology provides a *reductio ad absurdum* of the cluster of nonanthropocentric ethics which can be found under the label 'deep ecology'. What deep ecology seeks to promote, and what deep ecologists seek to condemn, needs to be articulated from a distinctively human perspective. And this is more than the trivial claim that our perspectives, values and judgements are necessarily human perspectives, values and judgements (*ibid.*:463—464).

Grey argues that temporal extension of moral concern “is intelligible only as long as it relates to a scale which is recognizably human, and to that extent, anthropocentric. . . . But that should lead us to extend our concern over centuries, rather than years or decades” (*ibid.*:467). Grey assumes that if one adopts a geologic scale to morally evaluate humanity’s effects on the environment, they will be viewed indifferently. After all, regardless of how many species humans extinguish or how many habitats they toxify, given enough time, nature will ‘bounce back’ as it has repeatedly done in the geologic past following cataclysmic mass extinction events. Nevertheless, perhaps only a nonanthropocentrist who embraces what J. Baird Callicott terms holistic rationalism would exhibit stoic indifference regarding this fact. Those who instead embrace the AFV have grounds for strongly condemning the short-sighted overexploitation of natural

resources that otherwise could have sustained our species and enabled it to flourish for several million years to come.

Grey's argument against the moral relevance of a geologic scale is echoed by Callicott, whose amendment to Leopold's land ethic reads, "*A thing is right when it tends to disturb the biotic community only at normal spatial and temporal scales. It is wrong when it tends otherwise*" (Callicott 1999:138). For Callicott, biotic disturbances are "normal" if the spatial and temporal scales involved are, as Grey puts it, "recognizably human," spanning centuries. Like Grey, Callicott assumes that utilizing a geologic spatiotemporal scale to morally evaluate human actions ultimately leads to indifference regarding the current state of the biosphere. Callicott believes that this indifference can only be avoided if we limit ourselves to maintaining what is ecologically normal in the present.

Our moral obligations—engendered by our community memberships, human and biospheric—are delimited by a fairly circumscribed temporal scale. The geological temporal scale is not morally meaningful. . . . Our duty is to preserve the species populations of the biotic communities that exist now. How to define the specious present indicated by the word *now*? We must build into it room for change; the world is not static. But if not the geological scale, upon what scale is it appropriate morally to evaluate change? An ecological scale, I suggest, calibrated by such ecological processes as disturbance regimes and succession (Callicott 2002:297).

However, Callicott's conception of ecological-scale normalcy does not seem to account for the fact that until quite recently, extinctions occurred on a geologic scale rather than on an ecological one. Furthermore, *normal* rates of disturbance and succession cannot be adequately determined unless a geologic scale is utilized. Disturbances and successions that appear normal over a handful of centuries may be construed as

abnormal if contrasted with those that occur on a much more expansive timescale. When it comes to environmental ethics, if moral obligations are inextricably associated with the concept of ecological normalcy, as Callicott insists, then a geologic scale *is* relevant to moral evaluations and is thus “morally meaningful” for at least helping to specify appropriate moral concerns—particularly regarding extinctions.

In order to understand what sorts of changes to an ecosystem or the biosphere are normal, such changes must be compared to and contrasted with the patterns ascertained from the geologic record. Biologist Michael McKinney explains:

Comparison of current human impacts on the biosphere to diversity patterns in the fossil record is essential for conservation biology. Without some kind of natural baseline, it is impossible to understand the radical changes being made to our current biosphere by humans. Examples of crucial baseline parameters include extinction rates, rates of biotic interchange, extinction selectivity (which taxa are more extinction-prone) during background and mass extinctions, and recovery patterns following mass extinctions (McKinney 2005:119).

If we had no knowledge of the normal rates at which species have gone extinct in the geologic past, we would not be so alarmed at the current, abnormal rate of anthropogenic extinctions. Such knowledge seems to justify environmentalists’ sense of its wrongness. The ecological scale advocated by both Grey and Callicott would have us evaluate normalcy on a timescale that covers only a handful of centuries since that is the timeframe during which disturbance regimes and succession normally take place. Even if we generously extended Callicott’s ecological timescale to encompass a handful of millennia, that would not be a sufficient amount of time to register the difference between the rate of anthropogenic extinctions and the normal background rate. The geologic record strongly suggests that humans have been extinguishing species at an

abnormally high rate for the past 50,000 to 70,000 years. In order to determine how ecologically abnormal and thus, from Callicott's perspective, *morally wrong* the rate of anthropogenic mass extinctions is, we must adopt a timescale that encompasses millions of years. Besides, species such as ours typically persist for several million years.

Paleontologist Michael Benton explains:

Extinction is normal. Species do not last forever. Indeed, the average lifespan of a species is perhaps 5 myr., with a range from 100,000 years to 15 myr., depending on what you are, whether a microbe or a flowering plant. Species come and go and, even though the overall diversity of life still seems to be increasing, there is a steady rate of background, or normal, extinction. The background rate of extinction may be only 10 to 20% of species per million years—10 or 20 species out of every 100 disappear every million years, which translates to one or two species per 100 every 100,000 years (Benton 2003:135).

Since the geologic record indicates that anatomically modern humans have only existed for about 200,000 years, our tenure on the planet may have only begun. However, if we are to go on existing for the several million years that would seemingly be normal for a species such as ours, we must recognize the importance of indefinitely maintaining a stable resource base. Among other things, this entails that we must stop degrading habitats and extirpating species at abnormally high rates. As Grey correctly notes:

A suitably enriched (non-atomistic) conception of humans as an integral part of larger systems – that is, correcting the misconception of humanity as distinct and separate from the natural world – means that anthropocentric concern for our own well-being naturally flows on to concern for the nonhuman world. If we value ourselves and our projects, and part of us is constituted by the natural world, then these evaluations will be transmitted to the world (Grey 1993:466).

3.3 Are Determinations of Ecological Normalcy Arbitrary?

Without a larger context to serve as a frame of reference, determinations of ecological normalcy are essentially based on scales confined to what individual humans can directly observe over no more than a small handful of generations. However, basing ecological normalcy on such a limited perspective can lead to conservation and preservation policies that are questionably arbitrary. The species and ecological communities that have occupied a geographic region the longest, as evident from geologic and paleoecological data, should be considered the most *normal* or *natural* for that general location. Environmental policies aimed at maintaining such species and communities in their 'natural' state should thus be far-sighted in terms of conservation, preservation, or restoration. As Paul and Hazel Delcourt explain, however, this has not been the case in the United States.

The United States federal government mandates that wilderness areas and old-growth forests be restored and maintained in their "natural condition," defined as that which existed in preColumbian times (before European American contact in the late 1400s), and therefore supposedly in a condition that was previously unaffected by human activities. This land management policy reflects the widely held notion that activities of prehistoric Native Americans were an insignificant ecological factor (Delcourt and Delcourt 2004:7).

The widespread notion that the vegetation the pioneers saw represented the "potential natural vegetation," that is, the vegetation that would regenerate in the absence of human influence, became the basis for guidelines to conserve representative remnants of natural vegetation as well as for efforts to restore altered vegetation to its natural state (*ibid.*:163).

By 200 BP, the landscapes that were previously utilized extensively by Native Americans had been abandoned and had largely regenerated as late-successional ecosystems. By the time that most Europeans saw them, the landscapes of eastern North America appeared to be a

wilderness. Rather than the forest primeval, however, the vegetation was composed of secondary stands that had regrown during just one successional cycle after Native American abandonment (*ibid.*:163—164).

Nowhere on Earth does the biosphere remain static. As Callicott insists, one must allow for disturbances and succession when determining the *normal* composition of biotic communities. It is also important to understand how ecological disturbances and successions have helped shape the communities under consideration. From a broad spatiotemporal perspective, it is clear that the biota that inhabits any particular space on the planet is constantly in flux as a result of factors such as climate change and variations in resource availability, although there are also indications that certain areas are more ‘natural’ for some species than others. Paleoecological, paleontological and archaeological studies also indicate that humans have left an indelible mark in the geologic record for at least the past 50,000 to 70,000 years. When *Homo sapiens* left Africa and Eurasia, its dispersal into novel territories invariably led to widespread ecological disturbances and rates of extinction exponentially higher than the geologic, pre-human, background rates that had been normal for millions of years. The biotic communities of the Americas, for example, have been utterly transformed by humans over at least the past 13 millennia. In 1492, “the overall population densities may have been as high as those of much of fifteenth-century Europe” (*ibid.*:163). The layout of plant and animal communities just prior to European contact was the result of the land’s adaptation to its human inhabitants (who themselves were adapting to the land) and bore little resemblance to the ‘unspoiled’ wilderness seen by the first humans to arrive there. When human population densities were low, Pleistocene megafaunal

communities thrived. Nonanthropocentrically speaking, the ecosystems were 'healthy' and fairly stable, at least for the long periods of time between ice ages. According to Paul Martin's overkill hypothesis, the first humans that entered the Americas hunted most of the large animals to their extinction, one after another.

Around the time Clovis points and other prehistoric artifacts first appeared, two-thirds of the large animals of North America north of Mexico suffered explosive extinction. Mexico, Central, and South America lost even more, including commensals and parasites that disappeared with their hosts (Martin 2005:51).

At some point, however, humans began to become integrated in a less destructive manner, perhaps having learned to conserve the animals that were important resources to them. At any rate, indigenous peoples had learned to take advantage of the land and selectively managed the forests, plains and riparian zones to promote an abundance of various plants and animals that could be used for food, shelter, trade, and so on. However, soon after the established human populations were decimated (perhaps to 10% of their peak size) by the post-Columbian newcomers, the land's successional trajectories were greatly altered once again by humans—by the sudden absence of the former human inhabitants and the abrupt presence of new ones. Of course, the land is still in a state of potential disequilibrium, its stability made more fluid by anthropogenic shifts in climate and the constant anthropogenic introduction of invasive species, the chief of which is *Homo sapiens* itself. It would thus seem that there is no way to 'return' the land to its "natural condition" as long as it is inhabited by humans. However, the geologic record may help to inform less arbitrary decisions regarding what state of nature we might feasibly 'stabilize.'

If one accepts Norton's Axiom of Future Value or a reasonably interpreted nonanthropocentric version (as discussed in Chapter Two), one *must* acknowledge the moral relevance of a geologic spatiotemporal scale. By limiting our moral responsibility to the handful of centuries called for by Callicott's or Grey's ecological timescale, we deny both the ecological impacts our species' behaviors have had in the geologic past as well as the impacts they will have in the indefinite future on the evolutionary trajectory of humans, nonhumans and the biosphere itself. The ecological impacts of anthropogenic disturbances such as global warming, biotic homogenization, invasional meltdown, and mass extinction may be hard to discern from a slowly unfolding scale that is "recognizably human," but the persistence of these impacts will be as enormous on a geologic spatiotemporal scale as those that accompanied the five greatest mass extinction events of the past 600 million years. While it is also true that on a geologic scale, new species will eventually emerge after the anthropogenic extinction event, and biodiversity will likely even surpass pre-extinction-event levels as has been the case with many past mass extinction events, this will happen long after humans and the species they care about preserving have gone extinct (as a result of unavoidably destructive cosmic or geologic events). This fact does not alter the relevance of a geologic scale, however. If policies are to truly favor the long-term preservation of species that exist now, as Callicott, Grey and other environmentalists insist, they must be informed by a consideration of patterns that have occurred throughout the geologic past. It is at the geologic scale that a species' evolutionary success and its long-term environmental needs are most apparent, including the ecosystem processes upon which its survival or

flourishing likely depends. The continued existence of endangered species in the wild (as opposed to in zoos) may be short-lived if policies do not aim at conserving or preserving them for millennia rather than centuries. Along these lines, Martin argues that we could save elephants (and other endangered animals) from extinction by 'returning' these proxy species to the Americas.

Introduction of both Asian and African elephants could . . . restart the evolution of proboscideans in the New World, where a dozen species held sway for more than 15 million years before their demise ended long-established ecological relationships and evolutionary possibilities. The claim of these giants to an evolutionary future is no less valid than our own. We can enable them to reinvent their ecology on the continent that once constituted an important part of their global range (*ibid.*:209).

Martin's proposed rewilding project aims at 'restoring' (as far as possible) the "natural conditions" that were disrupted by humans during the late Pleistocene. While this conception of nature may seem, on a geologic scale, less arbitrary than that of the US federal government, the 'restored' species would be strangers in a strange land. The ultimate effect of introduced elephants on any remaining species from the Pleistocene is unclear since these proxy species never existed in the Americas. Nevertheless, Martin may be correct that such a project would best promote the evolutionary success of proboscideans since they are so endangered in their 'native' lands.

3.4 An Appeal to Ignorance

The nature of our relationship to humans of the distant future is complicated by, among other things, the amount of ignorance we possess regarding the ecological, social, political, cultural, and economic conditions that will be in place. Of course, the more remote the future, the less certain are our predictions. Perhaps a safe, clean,

inexpensive, sustainable energy source will replace fossil fuels, and scientists will find a way to reverse the effects of fossil fuels on the environment. Maybe scientists will discover an inexpensive desalination method that produces no toxic waste. It might also be that a superbug wipes out 95% of the human population, drastically reducing humanity's collective ecological footprint. If any of these possibilities occurred, many essential elements of expected ecological dystopias would be avoided. As mentioned earlier, there is also a degree of arbitrariness involved in selecting a state of nature for preservation since ecosystems are under constant revision. And, as Martin Gorke points out, universal consensus is not likely to ever exist among humans regarding which particular ecological conditions are preferable. Thus, it may seem incredibly naïve for environmentalists to presume to know what sorts of environmental policies humans of the distant future might consider to have been ideal for themselves or for nonhumanity.

Anthropocentric naturalism is no less illusionary than naturalism that encompasses all species. Just as different *species* have different interests in an ecosystem, we must also expect various ideas from different *people* concerning the ecological conditions in which they would prefer to live. Is it “for humans” most favorable to live in a wild primal forest, a landscape characterized by small farms, streamlined agricultural areas or (as it is so euphemistically phrased) a “flourishing industrial landscape”? It seems obvious that this question can neither be answered by referring exclusively to ecological relationships nor can an answer be found in a universally accepted manner (Gorke 2003:57).

Despite our ignorance of an ecological condition universally acceptable for humanity, I argued in Chapter Two that a not-so-ignorant intertemporal Rawlsian veil tempered with considerations of Smilanskyan regret could be used to evaluate people's future attitudes regarding current environmental policies. As long as humanity's minimal vital interests—such as unpolluted air, soil, and water, stable ecosystem processes, and so

on—are indefinitely protected, it is not necessary that every human adopt the same lifestyle or live in the same ecological conditions.

Ecologically grounded anthropocentrism must allow for a pluralistic conception of humanity's *good* that permits variation in lifestyles and social organizations but condemns individual or collective behaviors that are immediately or foreseeably detrimental to species and biotic communities that environmentalists with rationally defensible worldviews want to conserve or preserve. Behaviors must be appraised within their contexts. Norton explains what sorts of policies would follow from this approach:

The contextual approach to environmental management recognizes constraints based in the dynamic interplay between specific actions (such as use of CFCs in aerosols or continued unrestrained use of fossil fuels) and the larger, normally slower-changing context in which those decisions are implemented. According to contextualism, there exists a threshold within which individual decisions to use CFC aerosols or burn fossil fuels will have insignificant impacts on the larger environmental context, which in these cases we can understand as the atmospheric envelope surrounding the earth. The atmosphere has significant resilience and can damp out consequences of the activities in question up to some point; if, however, major and persistent trends over several generations (such as accelerating use of fossil fuels since the onset of the industrial revolution) continue indefinitely, the atmospheric threshold is exceeded, and the autonomous and slow-changing characteristics of the atmosphere can undergo rapid change, such as changes in temperature many times more rapid than those that would normally occur with the advance and recession of the ice ages. According to this reasoning, activities that threaten no thresholds raise no ethical questions—they can be decided freely by individuals on the basis of choice (Norton 1991:210).

We may be ignorant of humanity's future technological capacities, but we can be fairly certain of many of the environmental challenges that future humans will face as a result of anthropogenic factors like global warming, pollution, and the disruption of

ecosystem processes. The most daunting challenges will likely be due to rising sea levels because of global warming and the resulting loss of habitable and arable land as well as fresh water supplies. Indeed, many nations will be utterly submerged, and their human and nonhuman inhabitants will become environmental refugees. Another challenge that current generations have taken all too lightly concerns the storage of high-level nuclear waste from nuclear reactors. When nuclear energy was still an emerging technology, the U.S. Geological Survey warned of the potential dangers of its waste products to future humans because of “the uncertainties involved in geologic prediction for long timespans” (Abbotts 1979:13).

Earth scientists can indicate which sites have been relatively stable in the geologic past, but they cannot guarantee future stability. Construction of a repository and emplacement of waste will initiate complex processes that cannot, at present, be predicted with certainty (*ibid.*:13).

The concerns expressed by Nobel laureate physicist Hannes Alfvén are also no less relevant today.

The problem is how to keep radioactive waste in storage until it decays after hundreds of thousands of years. The deposit must be absolutely reliable as the quantities of poison are tremendous. It is very difficult to satisfy these requirements for the simple reason that we have had no practical experience with such a long term project. Moreover permanently guarded storage requires a society with unprecedented stability (*ibid.*:14).

If we currently have the capacity to lessen the severity of such challenges but willfully neglect to do so, our descendants will hold us accountable. It would be highly irresponsible for us to ignore these challenges on the assumption that future human societies will develop the technology to adequately deal with them. Although we may

appeal to ignorance, such appeals will make us no less responsible for the all-too-real ecological predicament we carelessly dump at the feet of future humans.

3.5 A Personalist's Appeal to Ignorance – Regarding Parfit's Paradox

According to the person-affecting intuition discussed in Chapter Two, in order for harms or benefits to be morally relevant, they must affect persons. As pointed out by Derek Parfit, since our actions can only directly affect *particular* (identifiable) persons, the person-affecting intuition implies that the moral relevance of our actions can only be relative to those persons currently living or immediately foreseeable through impending births.⁷ Thus, adopting a morally responsible attitude toward persons of the distant future is an illogical exercise in futility. Although any persons that exist in the distant future will partially owe their existence to current policies and practices, such persons are fundamentally unidentifiable and can only be indirectly affected by what current humans do or fail to do. Coupling the person-affecting principle with the nonidentity problem, Parfit notes that after a few generations no matter what environmental policies we choose, whether conservation or depletion of natural resources, no identifiable persons will be harmed or helped by our actions. If any persons come to exist in the distant future and prefer existence over nonexistence, then, since our policies and practices are causally necessary for their existence, whatever we do or fail to do must be somehow inherently good for them. Paradoxically, even the disabilities or other misfortunes that future persons may experience as a result of our

⁷ Of course, some personalists do not consider potential persons, such as fetuses or infants, to be members of the moral community and argue that such beings cannot be harmed. Alberto Giubilini and Francesca Minerva (2013), for example, apply this reasoning to argue in favor of infanticide, regardless of an infant's health or future prospects.

environmental policies can be viewed as ultimately propitious since if our policies had been otherwise, they would not have existed at all. As noted by William Ferraiolo (2000), only those fortunate enough to exist in the first place can be subject to misfortunes of any kind.

According to the personalist's appeal to ignorance, since future persons cannot be harmed by what we do or fail to do, it seems that any environmental policy—even one that calls for the frivolous and utter depletion of resources that would be of vital interest to anyone who might exist beyond a couple of generations—is morally permissible as long as it causes no harms to currently existing persons. This led Parfit to conclude that the person-affecting intuition should be rejected. Parfit's dismissal is based on a more deeply felt, nonpersonal, *human-affecting* intuition that recognizes harms to humanity regardless of whether the recipients of such harms are readily identifiable or not. Because the person-affecting intuition is inherently individualistic, its spatiotemporal scale is too narrowly confined to adequately deal with long-term environmental problems such as global warming or mass extinction that affect collective humanity. If we radically decrease the potential quality of life for future humans through the overuse of limited or toxic resources, and thereby constrain humanity's long-term evolutionary success, we should recognize the harms that are committed and acknowledge our role in instigating them. If we cause future persons to regard us with contempt (for filling them with Smilanskyan regret, perhaps), we also preclude any possibility of having what Aristotle deemed flourishing, or excellent, lives. As Thomas Nagel explains:

There are goods and evils which are irreducibly relational; they are features of the relations between a person, with spatial and temporal boundaries of the usual sort, and circumstances which may not coincide with him either in space or in time. A man's life includes much that does not transpire within the boundaries of his body and his mind, and what happens to him can include much that does not take place within the boundaries of his life. These boundaries are commonly crossed by the misfortunes of being deceived, or despised, or betrayed (Nagel 1970:77–78).

It is likely that if current human societies do not significantly alter their environmental policies, the ecological legacy we hand over to future humans will be received with a strong sense of condemnation. If we continue to frivolously deplete toxic and limited resources, extirpate species, and so on, without adequately considering the long-term effects, future generations will condemn us as egoistic villains, or moral monsters. The longer into the future the effects of our ecological irresponsibility persist, the more monstrous we will appear to our descendants. Since the person-affecting intuition would lead us to egoistically disregard such concerns, it cannot be the basis for a coherent environmental ethic.

3.6 Individuals as Complicit Participants in Collective Wrongdoing

Although humans have had significant impacts on the biosphere for millennia, the most radical changes have coincided with the population explosion that began with the industrial revolution. One of the consequences of humanity's exponential population growth is an increasingly diluted sense of responsibility among individuals for the effects of their actions on others who are spatially or temporally remote. Craig Dilworth notes:

Just as the money economy subverted many of the values of simpler societies, so did population growth. . . . The excessive increase in the size

of human groups, by diluting the socially harmful consequences of immoral actions among millions of untouched and distant individuals, has allowed immorality to become less easily recognisable than it was in small primitive groups, in which all the members knew each other and promptly recognized the actions that could menace the survival of their communities (Dilworth 2010:374).

When we participate in the large behavioral trends of human societies, such as the frivolous mass consumption of fossil fuels, we are accomplices to the harms that occur as a result of our collective actions. We consider ourselves to be beyond reproach, however, because our individual contributions to the effects of collective action seem too miniscule to be relevant. Christopher Kutz argues that two commonsense principles are implicit in most defenses of the individual's nonresponsibility for harms committed in cases of collective action: the Individual Difference Principle and the Control Principle.

Individual Difference Principle: (Basis) I am accountable for a harm only if what I have done made a difference to that harm's occurrence. (Object) I am accountable only for the difference my action alone makes to the resulting state of affairs (Kutz 2000:116).

Control Principle: (Basis) I am accountable for a harm's occurrence only if I could control its occurrence, by producing or preventing it. (Object) I am accountable only for those harms over whose occurrence I had control (*ibid.*:116—117).

In the case of fossil fuels, the above principles imply that the average consumer cannot be held accountable for any of the harms associated with their mass consumption. For instance, if humanity's widespread consumption of fossil fuels is primarily to blame for global warming, it would still take place even if any particular extant individual had never existed. The average consumer has no control over whether or not anthropogenic global warming is taking place. Nor does his or her isolated consumption of fossil fuels make any practical difference to the severity of global

warming. Nevertheless, Kutz argues, another commonsense principle, the Principle of Complicity, overrides the other two principles in making the individual at least partially responsible for collective-action harms.

The Complicity Principle: (Basis) I am accountable for what others do when I intentionally participate in the wrong they do or harm they cause. (Object) I am accountable for the harm or wrong we do together, independently of the actual difference I make (*ibid.*:122).

Intentional participation in this context is perhaps better described as *voluntary* participation. When we freely engage in collective actions that produce harms, we are complicit regardless of what goals or motives are associated with our actions. Kutz also recognizes that, while many of us complicitly produce collective-action harms and are thus morally blameworthy, we do not all share the same culpability. Individuals' moral guilt from complicit participation in collective action runs along a continuum, with the least culpable *peripheral* agents at one end and the most blameworthy *core* agents at the other. Peripheral agents are less aware of the harms that will result from the collective action they participate in, or, knowing about such harms, they are less willing to participate. Core agents, on the other hand, are more aware of the harms that will result from the collective action they participate in, and they are more willing to participate. It is not the direct consequences of an individual's actions that matter. As David Schwartz explains, what morally matters according to the Complicity Principle is that an agent "*intentionally participates* in—and thereby adopts the ends of—the collectivity that together commits the wrongdoing" (Schwartz 2010:72, emphasis added). It should also be pointed out that perhaps more often than not, the ends, or consequences, are *implicitly* rather than explicitly adopted by both the individuals

involved and the collective itself. Consider, for example, an individual who takes a shortcut through the grass instead of using the sidewalk. If enough individuals collectively take the shortcut, the lawn will be 'destroyed.' Beyond a certain threshold, any given individual who participates in the collective action will have no significant effect on the end, or consequence, of the collective action. Nevertheless, each individual who voluntarily participates is complicit for implicitly adopting the collectivity's end, which in this case is the 'destruction' of the lawn, despite the fact that, for argument's sake, not one of the individuals wishes to 'destroy' the lawn. It does not matter that the explicit intention of each individual may be to get where s/he is going more quickly. The key points are that each individual who takes the shortcut likely knows that the shortcut will 'destroy' the lawn and that each individual could have used the sidewalk instead.

In modern, globalized consumer societies, almost every aspect of daily life is heavily dependent on the consumption of fossil fuels, and *virtually no one is ignorant of the ecological degradations associated with such consumption*. Although it is likely that most consumers are aware that the collective consumption of fossil fuels will have negative ecological consequences, it is also highly likely that they do not wish such consequences to result from their behaviors. One may then claim that since they do not *intend* to bring about negative consequences, consumers are blameless. However, it is not the *intended consequences* of one's actions that matter according to the Complicity Principle but one's *voluntary participation* in a collective activity that has (or will have) negative or harmful consequences. Consumers share moral culpability since they

voluntarily participate in the mass consumption of fossil fuels in spite of having at least some knowledge about the negative effects of such consumption. They also have the freedom, however utterly inconvenient it may be, to avoid consuming fossil fuels—or at least to drastically reduce the amount of fossil fuels that they participate in consuming. Among those at the core of blameworthiness, however, are many of the executives of fossil fuel companies and automobile manufacturers, along with the politicians responsible for lax mileage and emissions standards. Such individuals are integral to facilitating an increase in the frivolous consumption of fossil fuels rather than their reduction or replacement with less harmful alternatives.

3.7 On the Moral Irrelevance of Spatial and Temporal Proximity

One point of convergence among environmentalists is their concern to avoid what they consider radically dystopic futures. Although nonanthropocentrists emphasize our obligations to indefinitely avoid harming nonhumanity, they typically express the same concern as anthropocentrists to maintain a biosphere that is hospitable to human flourishing as well. Of course, one does not have to look to the distant future in order to find humans living in dystopic situations. There are plenty of people in the world today without access to clean drinking water or reliable food sources, who must contend with disease, warfare, or extreme poverty. Although we, the relatively affluent, are aware of their existence and could very easily offer assistance to some of them, we do not consider ourselves morally blameworthy if we choose not to. Perhaps this is because the number of sufferers is so great that our individual contributions of time or money would only affect a tiny fraction of them. As Bernard

Williams puts it, “It is not an accident or a limitation or a prejudice that we cannot care equally about all the suffering in the world: it is a condition of our existence and our sanity” (Williams 2006:147). Peter Singer and James Rachels argue from utilitarian humanism that we are nevertheless morally culpable since we are able but unwilling to help at least some of them. According to the moderate version⁸ of Singer’s Principle of Preventing Bad Occurrences:

If it is in our power to prevent something very bad from happening, without thereby sacrificing anything morally significant, we ought, morally, to do it. . . . It makes no moral difference whether the person I can help is a neighbor's child ten yards from me or a Bengali whose name I shall never know, ten thousand miles away (Singer 1972:231—232).

Both Singer and Rachels challenge the legitimacy of our culturally-ingrained intuitions about obligations to fellow humans based on factors like spatial proximity. Although in the past it would have required great sacrifices of time or money to help those who are geographically distant, globalization and modern technology have rendered spatial proximity irrelevant. Now, via telephone or computer, we can instantly donate to local or international aid organizations working to alleviate the suffering of fellow humans. Spatial proximity is thus not a morally significant factor, although it is helpful in *predicting* our behavior. Rachels explains:

It is absurd to suppose that being located at a certain map co-ordinate entitles one to treatment which one would not merit if situated at a different longitude or latitude. Of course, if a dying person's location meant that we could not help, that would excuse us (Rachels 1979:161).

⁸ I will not discuss the strong version of the principle because it seems “to require reducing ourselves to the level of marginal utility,” which is “the level at which, by giving more, I would cause as much suffering to myself or my dependents as I would relieve by my gift” (Singer 1972:241). Although Singer prefers the strong version, it can be rejected on the grounds that it would require its adherents to qualify for sainthood. The moderate version does not require such radical sacrifices.

The location of the starving people does make a difference, psychologically, in how we feel. If there were a starving child in the same room with us, we could not avoid realizing, in a vivid and disturbing way, how it is suffering and that it is about to die. Faced with this realization our consciences probably would not allow us to ignore the child. But if the dying are far away, it is easy to think of them only abstractly, or to put them out of our thoughts altogether (*ibid.*:161).

Rachels goes further by challenging another basic intuition. According to Rachels' Equivalence Thesis, there are no moral distinctions between killing and letting die. If it is wrong to actively kill someone, it is equally wrong to passively allow someone to die who could have a life worth living and whose life could be saved by our actions.

Some philosophers have argued that letting people die is not as bad as killing them, because in general our 'positive duty' to give aid is weaker than our 'negative duty' not to do harm. I maintain the opposite: letting die is just as bad as killing. At first this may seem wildly implausible. When reminded that people are dying of starvation while we spend money on trivial things, we may feel a bit guilty, but certainly we do not feel like murderers. Whether this feature of 'our moral system' is rationally defensible is, however, another matter (*ibid.*:159).

Arguing by a similar analogy, Singer points out that if it is wrong for us to ignore a child drowning in a shallow pond when it is in our power to save the child, it is also wrong for us to allow fellow humans to starve to death when we can easily do something to save them. No supererogatory acts are required on our part. By simply foregoing a frivolous act of participation in consumer society, such as purchasing a bag of potato chips or a cup of coffee, and instead donating the unused money to a charity, we could help extend another human's life, even if only temporarily. The temporary status of such aid is also irrelevant. Imagine that Pandi (the pandimensional being introduced in Chapter One) informs us that in saving the drowning child in Singer's analogy, we could extend his or her life by only a few hours, since the child will die of unrelated, unavoidable

natural causes the next day. Such knowledge would not, morally speaking, give us free reign to ignore the child's immediate plight. On a geologic scale, human lives are so brief that any extension, whether measured in days or in decades, prolongs the inevitable outcome of death by only a trivial margin of time. Nevertheless, because the child in Singer's example is deemed to have a life worth living, however brief it may ultimately be, Singer argues that we are morally obligated to at least consider the child's vital interests and do what we can to protect those interests.

According to Singer, "If we accept any principle of impartiality, universalizability, equality, or whatever, we cannot discriminate against someone merely because he is far away from us (or we are far away from him)" (Singer 1972:232). Of course, distance can be measured in both *space* and *time*, but one may question whether the two factors are parallel in a morally significant way. Singer and Rachels argue only that if there are morally sound reasons for saving fellow humans from dystopic situations, such reasons do not depend on *spatial* proximity. I suggest that according to the AFV, they should not depend on *temporal* proximity, either. If anthropocentrists should be concerned for fellow humans that currently exist, regardless of their spatial proximity to us, they should be equally concerned for those that will exist in the future, regardless of how far into the future they will exist.⁹ As stated previously, personalistic principles limit one's moral obligations to identifiable persons, who are typically part of one's own communities, thus egoistically limiting the moral community to a tiny fraction of humanity. Singer and Rachels argue in favor of humanistic principles in which the moral

⁹ In Chapter One, I discussed Saul Smilansky's argument against the relevance of temporal proximity. Smilansky invokes what might be construed as a reversal of the AFV, an Axiom of Past Value.

community includes *all* humans on the planet. Accepting the AFV, the community is expanded to include not only those humans who currently exist but also future members of our species and our evolutionary descendants. Rachels has a response for those who would reject such a conclusion on the grounds that it does not conform to their intuitions. “Rather than being perceptions of the truth, our 'intuitions' might sometimes signify nothing more than our prejudices or selfishness or cultural conditioning” (Rachels 1979:160). Singer acknowledges a much deeper criticism, however. If no one on the planet were allowed to starve to death, the population crisis would likely be much more severe than it is at present.

I accept that the earth cannot support indefinitely a population rising at the present rate. This certainly poses a problem for anyone who thinks it important to prevent famine. Again, however, one could accept the argument without drawing the conclusion that it absolves one from any obligation to do anything to prevent famine. The conclusion that should be drawn is that the best means of preventing famine, in the long run, is population control (Singer 1972:240).

Ideally, of course, such population control would be coupled with feeding the hungry. If egoistically or misanthropically interpreted, a call for population control could lead to ecofascism.

3.8 Lifeboat Earth and the Tragedy of the Commons

Garrett Hardin claims that the humanism expressed by thinkers like Singer and Rachels would ultimately generate more harms than benefits for humanity. Whereas Singer and Rachels emphasize our duties to alleviate the suffering of *current* humans, Hardin insists that we have stronger duties to protect the resource base for those in the *future*. As he puts it, “For posterity’s sake we should never send food to any population

that is beyond the realistic carrying capacity of its land” (Hardin 1976:131). *“Every life saved this year in a poor country diminishes the quality of life for subsequent generations”* (Hardin 1974:565). Instead of funneling vital resources to those born into ecologically or economically challenging circumstances, Hardin argues that we should sit back and allow the carrying capacity of the land to establish sustainable populations. According to Hardin, since the Earth has a finite amount of resources but an exponentially growing human population, we are essentially in a lifeboat situation. Thus, we the wealthy are justified in making self-serving, life-or-death decisions. The comparatively wealthy have more than enough resources to consume frivolously and keep themselves comfortably afloat, whereas the poor lack even the most basic necessities and must tread water in hopes of being admitted to a well-provisioned lifeboat or of at least receiving handouts that will enable them to continue treading water a bit longer. Hardin argues that humanistic sentiments like those of Singer and Rachels to allow the poor of the world to overrun the lifeboats of the wealthy would be devastating. *“The boat is swamped, and everyone drowns. Complete justice, complete catastrophe”* (*ibid.*:562). According to Hardin, if the wealthy shared their resources with *all* those who are in need, eventually everyone would be in the same wretched condition of poverty since the poor reproduce at unsustainable rates that are much higher than those of the wealthy. The wealthy would thereby squander the resources they could otherwise save for their descendants, ultimately condemning them to tread water with the rest of humanity. In Hardin’s words:

We cannot safely divide the wealth equitably among all present peoples, so long as people reproduce at different rates, because to do so would

guarantee that our grandchildren—everyone's grandchildren—would have only a ruined world to inhabit (*ibid.*:567).

In the end, either there would be no resources left to sustain humanity, or there would be insufficient resources to sustain lives worth living.

Hardin assumes that if the wealthy let the poor fend for themselves, human populations would roughly stabilize at their habitat's carrying capacity, as happens in the case of nonhuman species classified as K-strategists, with cyclical fluctuations as a result of changing environmental conditions. The human carrying capacity of any particular area—i.e., that area's capacity to sustain the lives of its human inhabitants—is largely determined by the size of its population coupled with the population's consumption patterns, cultural practices (including agricultural practices), and so on in relation to the available resources, climatic conditions, and various other natural selection pressures. However, Hardin is mainly concerned with the disproportionately large population size and rate of reproduction of the global poor rather than with the disproportionately large consumption rate and ecological footprint of the global wealthy. In other words, Hardin assumes that the size of a population is more critical than the population's consumption pattern in determining carrying capacity. Hardin argues that we must consider the larger ecological context, or situation, in which the poor of the world find themselves before deciding to help them. For the good of future humans, if the poor have exceeded the land's carrying capacity, we should let nature run its course.

The morality of an act is a function of the state of the system at the time the act is performed—this is the foundation stone of situationist, ecological ethics. A time-blind absolute ethical principle like that implied by the shibboleth, "the sanctity of life," leads to greater suffering than its situationist, ecological alternative—and ultimately and paradoxically,

even to a lesser quantity of life over a sufficiently long period of time. The interests of posterity can be brought into the reckoning of ethics if we abandon the idea of the sanctity of (present) life as an absolute ethical ideal, replacing it with the idea of the sanctity of the carrying capacity (Hardin 1976:133).

Echoing Hardin's warning that a tragedy of the commons is in the making, many ecologists claim that humans have already exceeded our *planet's* carrying capacity, having achieved what is referred to as overshoot.

Human activities have exceeded the biosphere's capacity since the 1980s. This overshoot can be expressed as the extent to which human area demand exceeds nature's supply: whereas humanity's load corresponded to 70% of the biosphere's capacity in 1961, this percentage grew to 120% by 1999. In other words, 20% overshoot means that it would require 1.2 earths, or one earth for 1.2 years, to regenerate what humanity used in 1999 (Wackernagel et al. 2002:9268).

If humans have indeed achieved overshoot, it is most likely due to the combination of overpopulation and overconsumption. However, since particular individuals and the societies to which they belong consume resources at highly different rates, collective overconsumption seems to be the chief culprit. As people around the world adopt the high-energy lifestyles of the West, their energy consumption increases substantially. According to the U.S. Energy Information Administration (EIA), China recently overtook the United States to become first in total primary energy consumption.¹⁰ If we also consider India's emerging economy and growing population, the prospects for addressing overshoot appear dire. Consider Stan Cox's observation that, "If India alone adopted the consumption pattern typical in the US, the global ecological impact would be as if the world's population had doubled" (Cox 2008:114). In order to reverse

¹⁰ <http://www.eia.gov/beta/international/country.cfm?iso=CHN>.

overshoot, either the human population or its unsustainable rates of consumption and ecologically devastating cultural practices would have to be drastically altered. If *all* human lives counted equally and were treated with the regard expressed by Singer and Rachels, it is the lifestyles of Earth's wealthy that would be sacrificed. If the 'quality' of human life counted most, as it presumably does for Hardin, then the overpopulated poor would be allowed to die, or, in Rachels' terminology, passively euthanized. What Hardin has not adequately addressed, however, is the irony that without many of the poor to supply cheap labor for the production of goods and services consumed by the wealthy, the system of inequality that enables the wealthy to have 'quality' lives would not be possible. Cox explains:

We [in the developed nations] continue to enjoy the high-energy life, and our economies goad those of less wealthy nations to follow our example. Then we carp about their having too many people while we take full advantage of the cheap labor power that those "too many people" can provide. (*ibid.*:114—115)

Holmes Rolston offers a nonanthropocentric argument that converges with Hardin's future-oriented, anthropocentric, contractarian egoism. Each foresees a tragedy of the commons arising if Earth's resources are fairly distributed among the poor and the wealthy, and each argues that it is thus sometimes necessary that the lives of the poor should be sacrificed for the greater good—of humanity for Hardin and of the Earth for Rolston. They make these claims in spite of the fact that the comparatively wealthy humans living in industrialized, consumer societies have exponentially larger ecological and consumer footprints than the global poor and are thus disproportionately more responsible for accelerating humanity's ecological predicament. It may appear

that the wealthy have not exceeded their land's carrying capacity but only because they exploit resources from all over the planet and keep their own land at least as 'green' as the law or local custom requires. When it comes to ecological footprints, it takes roughly 20 average Rwandans to equal the footprint of one average American. In other words, roughly 20 Rwandans would need to be sacrificed in order to free up sufficient resources to support the frivolous lifestyle of a single American (BBC 2009). Hardin justifies the vast disparity that exists between the haves and have-nots by referencing property laws that were (rather conveniently) written by those whose wealth was unfairly inherited. "It is literally true that we Americans of non-Indian ancestry are the descendants of thieves" (Hardin 1974:567). However,

The law long ago invented statutes of limitations to justify the rejection of pure justice, in the interest of preventing massive disorder. The law zealously defends property rights—but only *recent* property rights. It is as though the physical principle of exponential decay applies to property rights. Drawing a line in time may be unjust, but any other action is practically worse (*ibid.*:567).

Although Rolston acknowledges that the poor have "a right to a more equitable distribution of the goods of the Earth that we, the wealthy, think we absolutely own" (Rolston 1996:264), he seems opposed to having such a right fulfilled. Instead, Rolston echoes the egoism of Hardin's lifeboat ethic by pessimistically proclaiming, "Even if there were an equitable distribution of wealth, the human population cannot go on escalating without people becoming all equally poor" (*ibid.*:259). Of course, Rolston does not intend for humanity to live in universal poverty, especially since this would have a negative impact on the biosphere. He therefore attempts to justify the wealthy's disregard of the poor in a manner similar to Hardin's, by referencing cultural norms.

Instead of donating to charities to feed the poor, the wealthy typically spend their excess money on unnecessary things that give them pleasure. Presumably, according to Rolston, the widespread acceptance of this common practice makes it somehow morally permissible.

Every time we buy a Christmas gift for a wife or husband, or go to a symphony concert, or give a college education to a child, or drive a late model car home, or turn on the air conditioner, we spend money that might have helped to eradicate poverty. We mostly choose to do things we value more than feeding the hungry.

An ethicist may reply, yes, that is the fact of the matter. But no normative ought follows from the description of this behavior. We ought not to behave so. But such widespread behavior, engaged in almost universally by persons who regard themselves as being ethical, including readers of this article, is strong evidence that we in fact not only have these norms but think we ought to have them. To be sure, we also think that charity is appropriate, and we censure those who are wholly insensitive to the plight of others. But we place decisions here on a scale of degree, and we do not feel guilty about all these other values we pursue, while yet some people somewhere on earth are starving (*ibid.* 1996:250).

Robin Attfield argues that Rolston's appeal to cultural norms seems to undercut his arguments elsewhere against the status quo. If Rolston's defense of the wealthy is based on cultural relativism, he loses grounds upon which to challenge ecologically irresponsible behaviors that are also commonly practiced and accepted.

More generally, the moral assumptions of behaviour in the contemporary world cannot be allowed to form the basis of critical normative ethics; for on this basis it would make no sense to urge that the *status quo* warrants criticism and ought to change. Yet this is something which environmental ethicists usually both want and need to urge (Attfield 1998:292—293).

In response to Attfield and his other critics on this matter, Rolston claims:

One of my main points is that the 'feeding people' gained by 'sacrificing nature' is, in most cases, only a temporary solution to a problem that

needs to be solved at its roots in the birthrate patterns or social inequities that result in hunger. Else, one will find, a decade later, that the people are hungry again, because the problem was not attacked in the right place. . . . On this spectacular planet, with many millions of species, maybe it is astonishing anthropocentrism to hold that people always come first, no matter what their mistakes, no matter where their uncontrolled growth (Rolston 1998:352).

I nowhere said that 'we' are guiltless. I did say that 'we' Americans (and everybody else) sometimes correctly give priority to other values besides feeding the poor (*ibid.*:353). . . . I run the risk of being misanthropic; that is better than to risk being an arrogant humanist (*ibid.*:356).

Rolston's argument against helping the poor is specifically addressed to the poor whose continued existence would likely threaten endangered species by taking away land or other resources that such species would require. Rolston argues that on the African continent, where many species such as the black rhinoceros are critically endangered, there are too many humans interfering with the land's carrying capacity.

Starkly put, the growth of culture has become cancerous. That is hardly a metaphor, for a cancer is essentially an explosion of unregulated growth. Feeding people always seems humane, but, when we face up to what is really going on, by just feeding people, without attention to the larger social results, we could be feeding a kind of cancer (Rolston 1996:258—259).

One can say that where there is a hungry mouth, one should do what it takes to get food into it. But when there are two mouths there the next day, and four the day after that, and sixteen the day after that, one needs a more complex answer. . . . We have to figure in where such persons are located on the population curve, and realize that a good thing when human numbers are manageable is no longer a good thing when such a person is really another cell of cancerous growth. That sounds cruel, and it is tragic, but it does not cease to be true for these reasons (*ibid.*:259).

From Rolston's contextual perspective, a human being is essentially "a cell of cancerous growth" when s/he has been born into severely economically and ecologically challenging circumstances. Although the comparatively wealthy are largely to blame for

the rapidly spreading cancer of environmental degradation, Rolston does not argue that *their* demise would improve the evolutionary success of the black rhinoceros or other endangered species. Endangered species cannot be saved from extinction by the short-term sacrifice of the poor if the wealthy continue to frivolously squander resources such that other poor are pressured into situations in which they must compete with such species in order to survive. In fairness to Rolston, he is generally both a strong defender of human rights and a harsh critic of consumer society's effects on the environment. However, consumers in the developed world may take comfort from his Hardinian carrying-capacity argument. It seems to imply that they may continue living in denial of their complicity with corporations in exploiting the poor of the developing world and in helping perpetuate the socioeconomic conditions that continue conditions of poverty for large numbers, fueling lower education, higher unemployment, higher reproduction, and greater reliance on the immediate environment for survival necessities—including an increasing reliance on bush meat, which includes endangered species.

Those who are born into the most economically and ecologically challenging conditions experience most directly what it means to be in a lifeboat situation by having to live off the land when resources are limited and shrinking. When vital resources are scarce, the metaphorical lifeboat that the land represents exceeds its carrying capacity for humans and nonhumans alike. Comparing humans in such dire conditions to a cancerous growth is akin to blessing their eradication. Robin Attfield thus criticizes Rolston's overt misanthropy toward the poor.

The possibility of extinctions has long been known, without usually inclining those aware of it to the vocabulary of pathology. Granted the

strong grounds for preserving species, agents should certainly adopt concerted preservationist policies (and, where relevant, population policies to prevent unsustainable population growth too), but need not simultaneously regard their own existence and agency as some kind of cosmic curse (Attfield 1998:300).

By adopting a vocabulary of pathology to refer to the poor, philosophers like Rolston misrepresent the real problem. Since a human population's practices are generally more significant than its size in determining ecological degradation, environmentalists should be primarily concerned with reducing the ecological footprints of developed nations—whether by calling for reductions in population or for expansions of environmentally sustainable practices. At the same time, environmentalists should call on governments of the developed world to assist the poor whose existence puts pressure on endangered species through voluntary education and relocation programs. If environmentalists such as Rolston acknowledge that the global poor are detrimental to the health of the environment, they must emphasize that the global wealthy are much more so, especially if they exert their unsustainably enormous ecological footprints on a geologic timescale. Since the ecological footprints of consumers in developed nations tend to be exponentially greater than those of consumers in the developing nations where nonhuman species are threatened with extinction, the governments of the developed world should be acknowledged to have stronger duties to alleviate the ecological predicament.

3.9 Mass Extinction – Crossing a Dangerous Threshold

If death is a harm, it is a harm for individual organisms. Extinction should thus be considered a meta-harm since it is the death of an entire species. As Holmes Rolston

states it, “Extinction kills forms (species)—not just individuals; it kills collectively, not just distributively. Killing a natural kind is the death of birth, not just of an individual life. The historical lineage is stopped forever” (Rolston 1996:265). From an environmentalist’s perspective, causing a species to go extinct is among the worst harms that can be committed. Environmentalists therefore condone policies that protect, as far as possible, the rights of all species to exist within their *native* ranges and to expand their ranges on *natural* spatiotemporal scales. Although species are always on the move, taking advantage of niches that become available, the geologic record can indicate which regions have been typically inhabited by a particular species. The geologic record also indicates the typical rates at which species go extinct. Because anthropogenic extinctions exponentially surpass the *normal*, background rate of extinction, it is apparent that a critical threshold has already been crossed. Recall Benton’s explanation of the normal rate:

The background rate of extinction may be only 10 to 20% of species per million years—10 or 20 species out of every 100 disappear every million years, which translates to one or two species per 100 every 100,000 years (Benton 2003:135).

The rate at which species are currently going extinct or otherwise altered through adaptation to selection pressures is beginning to occur on a human rather than a geologic timescale. The presence of *Homo sapiens* is in fact quickly becoming one of the planet’s most powerful selection pressures, perhaps best compared to the abiotic factors of Earth’s past—such as cosmic collisions, prolonged volcanic eruptions, and so on—which were drivers of the previous five major mass extinction events of the past 600 million years that befell eukaryotic organisms like us. Coinciding with humanity’s

dispersal into novel ecosystems over the past 50,000 to 70,000 years, native mammalian species and genera have steadily gone extinct at rates exponentially exceeding the natural background rate.

According to estimates of the biologist Wilson, species are dying worldwide at a rate of about three per hour, or more than seventy per day, and 27,000 per year, each a unique specimen of life that has gradually come to be over hundreds of thousands of years. Extrapolating from present trends, we can expect an even greater increase in the loss of species. Pimm and Raven estimate that the extinction rate in the middle of this century may be about 50,000 per million species and decade. If we assume that approximately one species per year disappeared before the coming of humankind, this translates to a rate of species extinction that is more than one thousandfold greater than the natural one (Gorke 2003:1).

When habitats are altered or occupied by humans, their native, longstanding compositions are disrupted, with the largest mammals the most vulnerable to displacement or extinction because they require more space and resources than other organisms do. When surrounding habitats are also occupied or altered by humans, large mammals lose access to the migratory routes or resources needed to remain viable. They become critically endangered and, in terms of their role in ecosystem processes, are functionally extinct. Their complete extinction is almost guaranteed to take place on a scale of time that is recognizably human. However, the disappearance of a species leaves a permanent mark on a geologic scale. Every time that humans extirpate a species, there are ecological repercussions, which may be indiscernible at first. However, the more species that we extinguish, the greater the long-term effects are likely to be. According to Benton:

Low levels of extinction can turn into high levels. Destroying species and habitats piecemeal might lead to a runaway crisis, as seems to have

happened in the past. Once the world becomes locked into a spiral of downward decline, it is impossible to see how any intervention by humans could turn it back. It could be, for example, that removing one or two species from an ecosystem does little damage. The remaining species can adapt and plug the gaps. But if another few species are picked off, then another few, and then a few more, a point may be reached when that ecosystem will collapse. Better to stop destroying the environment before we become locked into such a catastrophic sequence of events. The natural world is complex, and consequences are often unpredictable (Benton 2003:299).

In considering the mass extinction events of the past, Rolston adopts a geologic view to argue that such extinctions are necessary for evolution to take place, since without such events life would come to a stagnant bottleneck. Once available niches have been filled, mass extinctions open the door for new forms to emerge. Rolston considers such a process to be ultimately positive, creative, and value-generating.

These periodic cutbacks prepare the way for more complex diversity later on. We first think that the catastrophic extinctions were quite a bad thing, an unlucky disaster. But in fact they were good luck. Indeed, were it not for such extinctions we humans would not be here, nor would any of the mammalian complexity. Life on Earth is so resilient that normal geological processes lack the power to cause widespread extinctions in major groups. But just such a resetting is needed—rarely but periodically (at least on a geologic time scale). We should think twice before judging these catastrophic extinctions to be a bad thing (Rolston 1994:48).

Rolston's approval of mass extinctions is due to their causal role in producing 'complex' forms such as humans. As William Grey notes, an attitude such as that expressed by Rolston seems altogether un-nonanthropocentric.

There is of course an excellent reason for us to retrospectively evaluate these great planetary disruptions positively from our current position in planetary history, and that is that we can recognise their occurrence as a necessary condition for our own existence. But what could be more anthropocentric than that? However, as Gould has pointed out, mass extinctions are awful for those who are caught up in them (Grey 1993:469).

Rolston next appears to reverse his position on mass extinction by stating that the current anthropogenic one is inherently bad.

There is one conclusion we must *not* draw from this. One might say, “Well, if catastrophic extinctions are so innovative, perhaps we need not worry about the anthropogenic ones.” Yet that fails to take into account the *radical* differences between natural and anthropogenic extinctions. Anthropogenic extinction has nothing to do with evolutionary speciation. Hundreds of thousands of species will perish because of culturally altered environments that are far different from the spontaneous environments in which such species were naturally selected and in which they sometimes become extinct. In a natural extinction, nature takes away life, when it has become unfit in habitat or when the habitat alters, and supplies other life in its place. Artificial extinction shuts down tomorrow, because it shuts down speciation altogether. Natural extinction typically occurs with transformation, either of the extinct line or related or competing lines. Artificial extinction is without issue. One opens the doors; the other closes them. In artificial extinctions, humans generate and regenerate nothing; they only dead-end these lines. There can be little respeciation on toxic soils and none at all on asphalt (Rolston 1994:49).

There is a clear inconsistency here that results from an error in reasoning. Rolston’s approval of past mass extinctions is based on a holistic rationalist’s utilization of a geologic timescale, but his disapproval of the anthropogenic one is based on a timescale that is much more parochial. Although Rolston begins his analysis by positively valuing *mass extinctions* of the past, he then commits a disanalogy by comparing *natural, background extinctions*, which Benton indicates to be “one or two species per 100 every 100,000 years,” to the anthropogenic *mass extinction*, which involves an exponentially larger loss in species over a brief period of time. While there is indeed a radical difference between background extinctions and mass extinctions, there is *not* a radical difference between mass extinctions of the past and the current,

anthropogenic one. It is precisely their striking similarity that makes the current mass extinction event so disturbing to environmentalists. Rolston is simply mistaken in claiming that there will be no respeciation after the anthropogenic mass extinction event, although it will likely take place on a nonanthropocentric scale of time similar to the one that followed the K-T event 65 million years ago. Of course, humans and their asphalt will no longer be around to witness the respeciation, but that is beside the point. The end-Permian mass extinction event 265 million years ago wiped out perhaps 95% of all life forms on our planet, a figure much greater than the number that will likely be extirpated by humans. It took approximately 100 million years for species richness to 'return' to pre-extinction levels. If, according to Rolston's adoption of holistic rationalism, a mass extinction such as the end-Permian event is to be viewed in a positive light, then for consistency's sake the current mass extinction event should also be viewed as a good thing overall.

If Rolston's holistic rationalism were consistently expressed, he would have no grounds for criticizing extinctions of any kind, anthropogenic or otherwise. Callicott rejects holistic rationalism for this reason.

Considering our time as but an infinitesimal moment of the three-and-one-half-billion-year tenure of life on planet earth (let alone the possibility that earth may be but one of many planets to possess a biota), man's tendency to destroy other species might be viewed quite disinterestedly as a transitional stage in the earth's evolutionary odyssey. ... A holistic rationalist could not regret the massive die-off of the late Cretaceous because it made possible our yet richer mammal-populated world. The Age of Mammals may yet likewise end. But the "laws" of organic evolution and of ecology (if any there be) will remain operative. Nonhuman life would go on even after a nuclear holocaust. In time speciation would occur and species would radiate anew. Future "intelligent" forms of life may even feel grateful, if not to us then to their

God (or the Good), for making their world possible. The new Age (of Insects, perhaps) would eventually be just as diverse, orderly, harmonious, and stable and thus no less good than our current ecosystem with its present complement of species (Callicott 1989:142).

However, in discussing why he believes the geologic scale is not morally meaningful, Callicott makes claims similar to those of Rolston. Like Rolston, Callicott's analysis of past mass extinctions does not match his strong disapproval of the current one.

The last great extinction event, which occurred 65 million years ago, is not reprehensible. Nor does the expectation that in 50 million years biodiversity will have bounced back from the anthropogenic mass extinction event now in progress let us off the ethical hook. We should not fret over the deep past, nor should we exonerate ourselves by contemplating the deep future (Callicott 2002:297).

Because Callicott rejects the moral relevance of a geologic scale, he finds nothing reprehensible about the K-T event. According to his human-centered, ecological scale, however, he is able to find fault with the current anthropogenic mass extinction event. Nevertheless, in order to identify what exactly is wrong with current extinctions, Callicott must utilize a geologic scale to highlight the abnormal rate at which they are taking place.

Normally, speciation out paces extinction—which is the reason why biodiversity has increased over time. So, what is land-ethically wrong with current anthropogenic species extinction? Species extinction is not unnatural. On the contrary, species extinction—anthropogenic or otherwise—is perfectly natural. But the current *rate* of extinction is wildly abnormal. Does being the first biological agent of a geologically significant mass extinction event in the 3.5-billion-year tenure of life on Planet Earth morally become us *Homo sapiens*? Doesn't that make a mockery of the self-congratulatory species epithet: the sapient, the wise species of the genus *Homo* (Callicott 1999:136)?

During the history of life on Earth, speciation and extinction have *normally* occurred on a geologic rather ecological scale of time. Also, since Callicott references the billions of

years that life has been present on Earth in order to highlight what should be morally condemned about *abnormal* anthropogenic extinctions, it should be clear even to himself that he *does* find a geologic scale morally relevant. Furthermore, if nonhuman life forms are intrinsically valuable and can be harmed, as Callicott, Rolston, and other nonanthropocentrists repeatedly affirm, then their extinction is decidedly a bad thing—at least, for them. Mass extinctions are the most apocalyptic ecological events that can take place on our planet. Just because a mass extinction took place several million years ago, that does not lessen the harms that were inflicted on the life forms that existed then. Such an extinction may not have been bad *for humans*, but to claim further that they were bad for no other life forms is a short-sighted anthropocentric conclusion that fails to acknowledge that harms can befall nonhumans as well.

Environmentalists such as Callicott and Rolston, who only consider the mass extinction of *current* life forms to be a bad thing, seem to regard such nonhumanity as more intrinsically valuable than any that existed in the geologic past or that could opportunistically exist in the geologic future as new niches are opened up by human activities. What is it that makes current species so valuable? The best response seems to be an anthropocentric one. Such species have existed alongside *Homo sapiens* throughout its evolutionary history. Witnessing the demise of all these species may be akin to seeing the canary die in the coal mine. It is a dire warning of what awaits *Homo sapiens* if the conditions in the ‘coal mine’ do not change. Of course, life will ‘bounce back.’ The life forms that will exist in the distant future as a result of the anthropogenic mass extinction event may be more numerous and ‘complex’ than those that would

have existed otherwise. Regardless, the use of a geologic spatiotemporal scale should not produce radical stoicism regarding humanity's influence on the biosphere, as would be the case for one who consistently adopted rational holism. Instead, it should make us reconsider what type of legacy we are bestowing upon future life forms, humans and nonhumans alike.

Chapter Four: Conclusion

4.1 What Have We Learned So Far?

Throughout the dissertation I have argued that, as predicted by Norton's convergence hypothesis, those who subscribe to ecological anthropocentrism would tend to endorse the same sorts of policies that would be endorsed by proponents of "reasonable" forms of nonanthropocentrism. I have demonstrated that those environmentalists identified by Norton's hypothesis subscribe to the AFV since they openly profess their toleration of humanity's continued existence—in spite of the immense atrocities that human societies have committed against nature. Any environmental ethic that is worthy of rational support must be both fundamentally nonindividualistic and long-sighted since the spatiotemporal scales that are deemed morally considerable by individuals do not adequately consider ecological wholes or individuals' complicit participation in collective-action wrongs.

Environmental problems involve an asymmetrical problem in decision scale—actions that are rational from an individual viewpoint lead inexorably to the destruction of a public, community-level value that emerges on a larger and more long-term scale. . . . Since environmental problems result from large-scale impacts of cumulative trends in individual decisions, multi-generational values are the ones that are relevant to assessing the choices, the options, and the opportunities available to future people (Norton 2000:38).

What I hope to have made clear is that subscribing to the AFV requires one to acknowledge the moral relevance of a geologic spatiotemporal scale. Since the aim of the AFV is the long-term evolutionary success of our species and our evolutionary descendants, and given that such success would be measured in millions of years, a

scale that encompasses a handful of centuries or millennia would cover the merest fraction of our species' future.

Callicott argues that the emergence of environmental philosophy coincided with a paradigm shift in ethics, that, in fact, human societies are ready for the next step in the evolution of morality. He claims that the chief characteristic of the new paradigm is that humans are not the only entities that are acknowledged to have intrinsic value. While I agree with Callicott that a new paradigm is emerging, the shift is not due to an expansion of the entities that are intrinsically valued by humans. Instead, the paradigm shift concerns a conceptual revision of *anthropocentrism*. Being environmentally human-centered does not imply that all nonhuman aspects of the world must be “quantified on a monetary metric” (Callicott 2009:144).

Neither economic productivity nor aesthetic and intergenerational moral values can be protected without protecting the complex, organized system that provides the ecological context on which *all* values depend. To assume that all values are economic values is to ignore this implicit, background value in the ecological processes that support economic, and all other, activity (Norton 1991:196).

Anthropocentrism's new paradigm is ecological and thus recognizes that since humans are part of nature, it is in their interest to maintain the stability, integrity, health, and so on of the ecosystems and other natural resources that promote the satisfaction of the full range of human values that are worthy of rational support.

I hope that I have demonstrated that nonanthropocentrists such as Callicott bank too heavily on the practical effectiveness of the concept of intrinsic value. A tremendous amount of human suffering exists in the world that could be alleviated by governments that presumably pursue anthropocentric policies. However, the

widespread acknowledgement within such societies that humans are intrinsically valuable has not compelled them to pay much more than lip service to the human rights of those who suffer. Thus, the expectations of nonanthropocentrists regarding what would follow from the widespread acknowledgement in these societies of nonhumanity's intrinsic value seems to be more an article of faith than to be based on empirical observations. Since the ecological predicament is global in nature, encompassing indeed the entire biosphere, the number of entities involved drastically exceeds that of the humans whose plight is widely ignored. Whether by choice or not, most people are ignorant of the effects of their everyday behaviors on extant fellow humans. An act as seemingly benign as consuming a chocolate bar, if performed by enough people, may be essential to maintaining the practice of slavery in places like the Ivory Coast. With less demand for chocolate, the owners of cocoa plantations in such places would at least maintain fewer slaves. "And because Côte d'Ivoire supplies 43 percent of the world's supply of cocoa beans and is the primary supplier to U.S. chocolate makers, there is a lot of chocolate out there on American retail shelves with the slavery taint" (Schwartz 2010:24). If we are blind to our complicit participation in collective actions that increase the plight of fellow humans who are spatially distant from us, we are doubly blind regarding our effects on those who are temporally distant. The same goes for our ignorance regarding the effects of our collective actions on nonhumanity in general.

4.2 Looking Forward – The Problem of Nero’s Fiddle

One might ask: So what is the point of this dissertation? Haven’t I just suggested that the ecological predicament is irremediable? I acknowledge that given the track record of human societies, there is indeed little reason to hope that problems as complex as global warming, mass extinction, biotic homogenization, and the proliferation of invasive species will be adequately addressed. If such problems are indeed capable of being alleviated, this will require the unprecedented, immediate, and prolonged cooperation of most nations on Earth. Andrew Fiala refers to this paradox as the problem of Nero’s Fiddle. “The difficulty is that a focus on narrow and short-term interest can appear to be rational in the midst of a crisis—especially when the crisis appears to be hopelessly unsolvable” (Fiala 2010:53). Unless the severity of the ecological predicament is adequately communicated to the public, it is unlikely that people will be motivated to alter those of their behaviors that contribute to the crisis. However, when environmentalists realistically convey what it would take to solve the problem, it appears that only immediate and prolonged global cooperation will be sufficient. If one then considers the conflict, disagreement and competition that historically characterize relations among humans within states and across their borders, there is very little reason to expect the necessary cooperation to take place. After thoroughly considering the predicament, it may indeed seem rational to conclude that the situation is hopeless. Since the number of people willing to voluntarily sacrifice short-term pleasures for the sake of humanity’s long-term future is likely to be insufficient, any given person’s attempts to be ecologically responsible will seemingly be

for naught. Thus, even the conscientious individual may conclude that it would be rational to fiddle while Rome burns, to adopt just the kind of selfish disregard for the environment and for future humans that would reinforce the problem.

Realistic assessments such as those of nonanthropocentrist Laura Westra that democratic institutions seem unlikely to remedy the ecological predicament add fuel to the pessimist's fire and may only inspire more individuals to opt for egoism.

Although changes in the balance of power between more and less developed countries, and within these between powerful and wealthy and disempowered groups, are desirable on other grounds, environmentally, no guaranteed success would ensue. As long as the emphasis remains on atomistic, individualistic rights, even the desirable change of power among present holders of power and those who lack it, will not suffice. There is nothing to prevent an individual in a less developed country to want desperately to enjoy not only freedom from famine and deprivation, but also parity with the life-style of more developed countries, with all their wasteful and unsafe practices. Nor is there any ground or mechanism to prevent such occurrences, if civil liberties (desirable as they are) remain primary (Westra 1993:133).

Norton acknowledges that humans may eventually face a future in which only a Leviathan could possibly stabilize Earth's natural resources such that prospects for humanity's long-term evolutionary success are strengthened. As I have alluded to throughout the dissertation, such a future would be rife with Smilanskyan regret.¹¹

The future would be justified in vilifying us if they face a world in which, for example, resource shortages are so severe that only a totalitarian government can sufficiently control population and limit access to over-taxed resources, thus breaking their ties to earlier generations that have

¹¹ I argued in Chapter One that Smilanskyan regret should be tempered so that it does not morally require one to be willing to sacrifice his or her existence in order to 'correct' the sins of humanity. However, Smilansky seems right in asserting that one who values humanity as such should nevertheless regret that his or her existence cannot be causally decoupled from such sins. Furthermore, it is rational for extant humans to try to avoid creating a future in which their individual and collective actions are regrettable in Smilansky's sense.

painfully evolved toward democratic control of governments (Norton 2000:39).

Fiala claims that if there is a solution to the paradox of Nero's Fiddle, it is "to foster an alternative form of rationality that looks beyond short-term utility" (Fiala 2010:53). That is precisely one of ecological anthropocentrism's main objectives. According to proponents of ecological anthropocentrism, it is rational to prefer a universe in which humans flourish on a geologic spatiotemporal scale. As Norton points out, this form of rationality requires that considered preferences take priority over merely felt ones.

Ultimately, the central aim of the dissertation has been to demonstrate that ecological anthropocentrism provides a strong foundation for a rationally defensible environmental ethic. I have also tried to demonstrate that the overall objectives of ecological anthropocentrists do not differ significantly from those of "reasonable" nonanthropocentrists because both of these types of environmentalists ultimately subscribe to the AFV. If current human societies embrace the "alternative form of rationality" represented by proponents of ecological anthropocentrism, they will endorse policies that rational beings of Earth's indefinite future would universally condone. Consequently, such beings would have fewer reasons to regret the conditions that bring them into existence and would be less likely to condemn current humans as moral monsters. Finally, I hope that the arguments I have presented will help convince environmentalists with disparate beliefs about ultimate values to realize that such

differences of opinion should not prevent them from working together to promote policies aimed at a better future for humans and nonhumans alike.¹²

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¹² Presumably, a 'better' future for nonhumans is one in which, among other things, anthropogenic extinctions do not exponentially outpace geologically normal, background extinctions, and ecosystem processes provide stable 'services' for all Earth's life forms.

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PUBLICATIONS

“Anthropocentrism and Nature: An Attempt at Reconciliation.” *Teoria*, Rethinking ‘Nature,’ 2 (2015): 119–137.

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