Introduction

With typical Victorian reserve, Charles Darwin writes in the concluding paragraph of his revolutionary work, *The Origin of Species*,

> It is *interesting* to contemplate *a tangled bank*, clothed with many plants of many kinds, with birds singing on the branches, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us.[1]

But the biotic diversity and the interrelation among species and their habitats Darwin perceives are not simply interesting. Even on the tiny scale of some nameless patch of earth, this diversity of interrelations is shattering! Adding to Darwin's awe is his conviction that some set of laws underlies, produces, and sustains the variety of living forms, their difference from as well as their dependence on one another. Biotic diversity—the origin, proliferation, dying out, and intermingling of species—is constituted by the pressure of natural selection acting upon the organic forces of growth, reproduction, inheritance, and variation. From the dynamism of this pressure and these forces, "from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher mammals, directly follows."[2]

As the production of higher mammals follows from this dynamism, so also do human beings. But with humans come many capacities that seem unrelated to this story of evolution, perhaps even contrary to it. For humans are moral and religious animals as well, capable of conceiving and choosing the right, of envisioning and acting toward the good, of registering and constructing visions of the ultimate purposes

1. Darwin, *The Origin of Species*, 459 (my italics).
2. Ibid.

of existence. While often selfishly pursuing our own interests, on many occasions we sacrifice our individual and immediate concerns for the interests of other individuals or for the good of a community. While we certainly make war, while many become rich through the exploitation of others, we also make peace and strive for justice.

How can a creature capable of such morally worthy projects be the product of nature's "war," a war in which to sacrifice oneself and through oneself one's offspring seems to run counter to the central biotic drive of survival? How can a morally striving religious animal be the product of what seems at best to be the amoral nature of mundane evolutionary processes? Darwin's picture of the biotic diversity and the interrelationships among species in their riparian habitat provokes interesting questions indeed, especially questions about how to understand the meaning and responsibilities of the human moral relation to the natural world!

Darwin's "tangled bank" of interdependency provides a suggestive framing image for the intertwined concerns of this book. It indicates the complexity of exploring the meaning and moral responsibilities of being human through the relations among the biological sciences, ethics, and theology. As with the multiple forms of life inhabiting Darwin's bank, biological theory, ethics, and theology are not entirely autonomous from one another. While different, their boundaries are porous rather than impermeable. Biological theory, ethics, and theology are matrices of inquiry that significantly impinge on one another.

Among its other tasks, this book examines the interstices within the "tangled bank" of these disciplines in order to gain a better view of the moral meanings and responsibilities of the human as a natural historical creature. Looking into these questions is especially important, I argue, in a time of environmental crisis. And so more constructively, the image of the "tangled bank" also provides a metaphor for an ecotheological ethics of responsible participation, which this book proposes as a promising direction for an ethics for our time. In addition, "the tangled bank" provides a rhetorical framing motif for comparative critique of Jewish philosopher Hans Jonas and Christian theologian James M. Gustafson, thinkers who have been under-appreciated within the field of environmental ethics but that I will advance as significant resources. And last, Darwin's "tangled bank" points toward what I take

to be one of the most pressing environmental ethical problems of our time—the conjunction of radical power and moral uncertainty.

Power itself is not the problem, for power is merely the potential to impact the world in some way. Power harbors as much a constructive potential for good as a destructive potential for harm. The problem with power is knowledge of what to do with it—how to apply it, what ends to direct it toward, how to constrain it. Whether the impact of power on the world is for good or evil turns on the freedom of individuals, communities, and societies to choose how to exercise power. Choice is entailed in the application of power. And the possibility of choice assumes that those choosing are sufficiently free to imagine and actually to bring about the alternative outcomes that are the subject of choice. Choice is correlative to power whether power is related existentially to human individuals or socially to communities. Whether understood in a principally negative way as domination, on a more positive collaborative model, or in terms of some other construction, power and choice go hand in hand and always will.

But in our time this correlation has taken on a new moral gravity. For at the very moment when the capacities of our individual and communal power to alter the world are so profoundly increasing, as individuals and communities we are less morally confident than ever about how to exercise that power. One of the most acute moral problems for us, then, is that the colossal growth of our human power to impact the world is joined by an increasing uncertainty about how morally to guide this power. This book analyzes this relatively undertheorized problem in relation to the environmental crisis and technological culture, drawing upon the insights of Jonas and Gustafson and bringing them forward as crucial but neglected resources for constructive thinking in environmental ethics.

The rise of moral uncertainty has many sources. In at least two ways, the growth of human power itself is one of these. New scientific and technological developments continuously reframe our understandings of the context and stakes of moral action. As we learn more from the natural sciences about our world we come to a greater understanding of the complex impacts of human behavior in it. Awareness of the interdependencies of our world challenges our frameworks for determining the consequences of action, for weighing risks and opportunities, for determining what is right and good. In all of these ways and

more, increase of knowledge and power complicates the moral life. So the growth of power through the combination of new knowledge and technologies is a generative cause of our moral uncertainty.

A second cause of the rise of moral uncertainty stems from our increasing awareness of and sensitivity to moral pluralism. This too is related to the expansion of human power. For our awareness of moral diversity is in part the effect of innovative communication and transportation technologies that bring the far reaches of the world closer to home, fomenting contact and exchange among different cultures in unprecedented ways.

While increasing knowledge of the vast differences that structure our world may in essence be a positive good, one of its negative effects can be the protraction of ethical and policy debates regarding the exercise of power. Debate over important matters and consideration of moral differences are properly a part of the process of careful moral deliberation and a necessary prelude to thoughtful action. And yet when considered debate devolves into reticence, quietude, or paralysis we fail morally in the face of the gravity of our expanded power. Power always entails that moral choices must be made and the significance of choice in our time of radical power is profoundly magnified. So a significant task for contemporary ethics, philosophical and theological, environmental and otherwise, entails facing the problematic conjunction of radical power and moral uncertainty.

Another source of our moral uncertainty is the rise of historical consciousness. Philosophers, cultural theorists, anthropologists and others have in recent decades severely called into question the characteristic modern Enlightenment search for absolutes, for a neutral epistemic foundation from which to access objective truth. The understanding that all quests for knowledge and norms are in some way interested, perspectival, historically situated, culturally partial, and socially particular is now exceedingly familiar. Assumptions about the ahistorical nature of reason have ceded to emphases on contingency. We know that knowers are not only passive receptacles of the real but participate in the construction of reality. The quest for universally binding moral norms has largely given way to descriptions of the cultural and historical embeddedness of morality.

The rise of historical consciousness thus raises the specters of epistemic and moral relativism. Nostalgic calls for a return to an ahistorical

vision of reason and morality are certainly out of place. And yet it is equally certain that our moral uncertainty is a grave problem in the face of our expanding powers to alter the world, and specifically the natural environment that sustains us as well as all other forms of life.

This book is motivated by the problem of power and uncertainty as one of the most pressing moral problems of our time. But this is a vast problem and responding adequately to it requires choosing a point of entry, isolating a topic that enables seeing it in finer-grained detail. So while generally concerned with the problem of power and moral uncertainty, this book is more specifically concerned with power and uncertainty in light of our environmental crisis and technological culture. My aim, in light of these specific concerns, is to articulate the contours of an ecotheological ethics of responsible participation, utilizing a moral anthropological method to comparatively critique the intersection of biological theory, ethics, and theology in the works of Jonas and Gustafson.

I aim to do several things in this introduction. I will first describe the roles of power and moral uncertainty in the environmental crisis. Following this, I will propose a moral anthropological method as a suggestive but underdeveloped strategic option for theory construction and interpretation in environmental ethics. I will then present the basic shape of my argument and introduce the ethical theories of Jonas and Gustafson.

Power, Uncertainty, and Environmental Crisis

The conjunction of radical power and moral uncertainty manifests itself in multiple interrelated aspects of contemporary moral experience, existential, political, and social, each of which warrants careful consideration. Yet underlying and reaching through each of these manifestations is one that I take to be in some ways more fundamental—the environmental crisis. The expansion of human power through the invention of new technologies, and the swirling debates regarding choices and policies about the guidance of this power, have introduced unprecedented moral dilemmas and confusion concerning the human relationship to the natural world.

Never before has humanity had the knowledge, skill, tools, or power irreversibly to alter the natural environment surrounding and

sustaining it. Nature before recent times was a reliably stable backdrop to human existence. While there never was a time in human history when humans did not impact nature, the range of this inevitable human impact was until the last couple of centuries relatively limited. There is an enormously wide moral gap between the capacity to change nature partially and the capacity to alter it totally. Navigating this gap is one of the most significant ethical tasks of our time.[3]

The environmental crisis can be understood as a fundamental moral problem for at least two reasons. First, insofar as the existential, social, and political dimensions of moral experience depend upon an ecological order sufficient to sustain them, then an environmental crisis that may compromise that order is more basic. Both the moral experience of individuals and the moral structure of societies simultaneously rest upon and are shaped by the condition of natural environments. Natural environments are fundamental to human moral experience, then, in that they provide a framework that shapes the limits and possibilities of such experience. This is not to say that natural environments are entirely determinative of human experience, for historical and cultural contexts also shape experience in profound ways. Yet, while history and culture shape moral experience, nature, history, and culture are always intertwined. And insofar as humans are biological as well as historical and cultural creatures, human moral experience is rooted in nature.

And second, through innovations in biotechnology, the historic human aim to control the natural environment has crossed a morally significant threshold. As Jürgen Habermas puts this, "more and more of what we are 'by nature' is coming within the reach of biotechnological intervention . . . [and this] is but another manifestation of our tendency to extend continuously the range of what we can control within our natural environment."[4] In other words, the technological extension

3. German sociologist Ulrich Beck articulates this moral gap and the challenges of navigating it by specifying the unique character of "risk" in our time. He writes, "Unlike the risks of early industrial society, contemporary nuclear, chemical, ecological, and biological threats are (1) not limitable, either socially or temporally; (2) not accountable according to the prevailing rules of causality, guilt, and liability; and (3) neither compensable nor insurable." For these reasons, he continues, "the regulating system for the 'rational' control of industrial devastation is about as effective as a bicycle brake on a jetliner." See Beck, "Politics in Risk Society," in *Ecological Enlightenment*, 2.

4. Habermas, *The Future of Human Nature*, 23.

of human power into areas such as genetic engineering dissolves the historically entrenched categorical boundary between the surrounding natural environment and the nature of human beings. In an unprecedented way, humanity hereby becomes not only the subject of the power to manipulate nature, but also the object of this power.[5] Understanding this shift is crucial to understanding more fully our human participation within and responsibility for the environmental crisis.

Sociologist Anthony Giddens articulates well this aspect of the environmental crisis in his interpretation of the difference between "external" and "manufactured" risk. By "external risk" he refers to the kind of risk experienced as coming from the outside, from the objective conditions of the natural world and its capacity both to sustain and do harm to humans. For most of modern human history, Giddens writes, this "external" concept of risk fueled scientific and technological development, which were aimed at harnessing and controlling the powers of nature in order to make human life more secure. But, ironically, advances against the pressures of external risk have caused a new kind of risk to emerge, "manufactured risk." Manufactured risk consists of the accumulated threat of technological innovation that now structures human social life. "At a certain point," he writes, "we started worrying less about what nature can do to us, and more about what we have done to nature. This marks the transition from the predominance of external risk to that of manufactured risk."[6]

Put in a different way, in classic Marxist terms, alterations of the objective material conditions of life always impact both the limits and possibilities of human life. As humans articulate the objective world, they articulate their own subjectivity; technologies fashion selves as they fashion the world.[7] Though this dynamic has always been opera-

5. Human power's penetration into human biology leads, in Habermas's terminology, to the "dedifferentiation" of the objective natural world and the natural conditions of our human subjectivity. See *The Future of Human Nature*. While we have always been a part of nature, we have historically lived as if this were not the case. Our capacities to alter the natural world have been relatively limited, our impact relatively short term, our biological constitution insulated from fundamental alteration.

6. Giddens, *Runaway World*, 26.

7. Of this double articulation of technological power, its reciprocal influence on the world and upon us, philosopher Langdon Winner writes, " . . . technologies are not merely aids to human activity, but also powerful forces acting to reshape that activity and its meaning." See Winner, *The Whale and the Reactor*, 6.

tive, a time of radical power brings it into high relief and makes moral choices more urgent. The "manufactured risk" of which Giddens speaks is the effect of radical human power and factors into the unique moral dilemmas of the environmental crisis.

What comes to view in light of the insights of Giddens and others is a picture of the environmental crisis with multiple overlapping dimensions, each of which presses its own kind of moral and political choices. It is simultaneously global and local, impacting the whole of the biosphere generally but also specific regions in particular ways. It introduces new social problematics, impacting the possibilities, limits, and ethos of human social interaction as well as human interaction with the natural world. The environmental crisis foments new political questions as well, concerning how societies ought to be organized around a conception of the common good that includes the good of the natural order in which human societies are embedded.

New economic considerations are generated too. Nature is not an inexhaustible resource and factoring it out as an externality falsifies the actual calculus of production and consumption. And there are of course technical and scientific dimensions to the environmental crisis. New technologies and increasing scientific knowledge of our natural world have led to many good things. But with respect to many of the ecological and biological challenges we face, there is constant debate about whether or not these challenges can be met by yet newer technologies and greater scientific understanding.

These complex, manifold consequences of the crisis of human power are *our* human moral burden in several senses. They are ours because they are of human own making. We have manufactured them and so we are causally responsible for them. They are the effect of an increase in scientific knowledge of nature, the development and impact of powerful technologies that allow humans to control and alter the natural world in unprecedented ways, and a failure to choose responsibly how to direct this knowledge and power. Of course not every individual everywhere is equally a cause of environmental problems, but everyone everywhere is impacted in some way by them and every person has some capacity to effect change in the world.[8] All humanity

8. Ulrich Beck puts it dramatically: "Until now, all the suffering, all the misery, all the violence inflicted by people on other people recognized the category 'the Other'—workers, Jews, blacks, asylum seekers, dissidents, and so on—and those appar-

is included in the object of moral consideration that the expansion of power compels us to face—the future of all life.

The moral burden of human power does not belong to a specific place, region, tribe, or nation but to all humans everywhere. In this sense, there are no "outsiders" or "marginalized," for all humans belong within the orbit of life's endangerment.[9] The future of life is now an option that must be chosen. And yet this choice is a distinctly human task, for it is a moral choice and only humans possess the moral and cognitive capacities to make it. So in addition to being causally responsible, humanity is morally responsible for the environmental crisis as well.

This radical extension of human power significantly differentiates the "moral space" of this time from other historical periods.[10] We have crossed a moral threshold from the inevitable fact of limited human incursion into nature to the possibility of nature's present and future total alteration. Never before has the future of human life on the planet been an object of moral consideration. That there would be a human future has always until now been a secure assumption. Never before has the future of the entirety of the biosphere been an object of moral concern. That there would be a future for *bios*—for all of life—has until now been a shared confidence, not a matter of choice. Understood in these ways, the environmental crisis demands strenuous and concerted ethical thinking leading to responsible moral participation in the natural world.

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ently unaffected were safely outside this category. *The advent of nuclear and chemical contamination* [and, he implies, ecological devastation] *has let us experience the "end of the Other," the end of all our carefully cultivated opportunities for distancing ourselves*." See "Survival Issues, Social Structure, and Ecological Enlightenment," in *Ecological Enlightenment*, 27 (italics original).

9. This is of course not to say that ecological degradation is either caused or experienced by all people in the same way. This is emphatically not the case. I simply mean to underline the point that the vulnerability of the natural environment, habitat for the human species among many others, is a broadly human problem.

10. I use the concept "moral space" here in the sense that Charles Taylor uses it in *Sources of the Self*, as an "orientation" that shapes questions about "what is good and bad, what is worth doing and what now, what has meaning and importance . . . and what is trivial and secondary" (28). Part of the usefulness of the concept, as I intend it, is that the spatial metaphor induces moral thinking to move beyond strictly human historical concerns toward a fuller appreciation of our environments, natural and social. See Taylor, *Sources of the Self*, 25–52.

Moral Anthropology and Environmental Ethics

Over the past decades, environmental thinkers and activists have successfully brought the environmental crisis to the attention of many. And yet as German sociologist Ulrich Beck notes, while the precarious state of the natural environment is "accepted in principle, there is still no action, or at best only cosmetic action, taken."[11] There are many reasons for this gulf between perception and action.

For one, the scale of environmental problems is overwhelming and poses a challenge regarding where and how to implement policy. Two other reasons for our moral impotency, related to scale, are causality and accountability. Environmental causality is inherently ambiguous, a puzzle to trace, making it difficult to isolate accountability. Environmental impacts drift, ignoring geopolitical boundaries, crossing public and private sectors. But these sources of inaction are compounded by the internal fragmentation of environmental ethical discourse.

While many environmental thinkers share an ambition to theorize a proper moral relationship between humans and nature, the consensus requisite to effectual response to our environmental challenges is impeded by the conflicting visions among the variety of theories proffered. In short, though environmental thinking has been strenuous, it has not been concerted. Great differences fragment the field. The broader culture's moral uncertainty and its profuse debating are reflected within environmentalism. Conflict rages to the point of paralyzing constructive practical agendas. The environmental philosopher Bryan Norton, for example, has characterized the recent scene of environmental discourse as a "babble of voices," as a "cacophony" of worldviews hampering the process of developing and implementing constructive environmental policies.[12]

Isolating a common concern within this cacophony is an important strategy in the effort to clarify it. I hold that one shared concern in environmental ethics revolves around descriptive and normative accounts of the relation between our human moral nature and the broader natural world, what I will commence to refer to as "moral anthropologies." I would like to stress the *relational* character of what I intend here. With the term "moral anthropology" I do not refer strictly

11. Beck, "Politics in Risk Society," *Ecological Enlightenment*, 5.

12. Norton, *Toward Unity Among Environmentalists*, ix.

to an account of human moral nature, or to human moral capacities, though these are features of a moral anthropology. By "moral anthropology" I intend to draw attention to the *relation* between humans and the broader natural world, a relational picture within which description and prescription of this relation circulate and mutually influence one another. That is, a moral anthropological method for environmental ethics describes the human relation to the natural world and informs prescriptions for the way humans ought to relate, for example, to other natural beings, to the evolutionary history of life, and to the broader biophysical environment.

While I take moral anthropology to be a common concern within environmental ethics, even if it is not always explicit, it is manifest as a continuum of positions. The descriptions at either end of this continuum are seemingly irreconcilable. One end of the continuum emphasizes relational continuity between humans and nature, the other discontinuity; while one side understands humanity within nature, the other emphasizes human autonomy and difference. The prescriptions informed by this descriptive continuum also seem to be reversed. Where one end of the continuum can lead to a privileging of the value of natural systems over individuals and species, human and otherwise, the other tends to privilege human value over nature. While one pole affirms humanity's dependence on the natural, the other generally downplays this. Though the influence of a moral anthropology on the broader ethical system containing it is not always acknowledged, it is of profound normative consequence whether an ethical theory emphasizes a description of human continuity or discontinuity with nature.[13]

By "moral anthropology," then, I refer to the reciprocal dynamic between moral imperatives for and descriptions of the human relation to nature. Moral anthropology is an object within the field of ethical theory, encompassing descriptions of the human-nature relation and the prescriptive limits and possibilities those descriptions create for

13. Extreme positions on discontinuity, for example, tend to describe nature as radically other, characterizing nature homogenously as nonhuman. This description leads to some version of an instrumentalist axiology in which nature's value is based on its availability for human use. On the other hand, positions on continuity reverse these emphases by downplaying human distinctiveness through a naturalization of human moral capacities. At the extreme end of this tendency, human interests and values have no claim to priority over the natural world. Nature is intrinsically valuable, a center of value itself.

what humans ought to be and do in relation to the natural environment. How a moral anthropology is articulated—what is emphasized and what may be neglected, whether it features an understanding of human morality as continuous with the rest of natural life or as marking a strict divide—impacts theories of value and obligation and the feasibility and limitations of policy. Given this, moral anthropologies are bright stars in the various constellations of ethical theory and can serve as a helpful interpretive, comparative, and critical focus of study.[14]

While I hold that the interpretive significance of moral anthropology stands for ethical theory in general, this significance is especially pronounced and of enormous practical relevance in the field of environmental ethics. Against the sensibility of many environmental thinkers, I contend that environmental ethics should move towards rather than away from an anthropological focus.

Some environmental thinkers critique any focus on the human as pejoratively anthropocentric. But the automatic assumption that any concern with the human is out of place in environmental thinking radically narrows the field of environmental ethics and minimizes the moral challenges of the environmental crisis. Along with theologian Peter Scott, I understand environmental concern as a human concern, it "is not directed to some abstraction, called Nature. Instead it is directed towards the quality and character of habitation, including the habitation of humanity."[15] The fundamental concern of environmental thinking, in my judgment, is how morally to live the good and right life in relation to the natural environments that we simultaneously depend upon and threaten.

Humans, then, are central to the project of environmental thought. Because the human is at the center of the environmental crisis, insofar as this crisis is directly related to the extended scale of human power and the rise of moral uncertainty, the human needs to be at the center of an ethical response.

14. Along with religious ethicist Anna Peterson, I affirm that "any idea of human nature has ethical implications and that all ethical systems rest upon certain ideas of human nature." However, as Peterson notes, this does not mean that anthropology alone is sufficient to the understanding of ethical theories. It suggests instead that as a necessary dimension of ethical theory, granting a measure of critical attention to moral anthropology can advance the understanding of ethical systems. Peterson, *Being Human*, 3.

15. Scott, *Political Theology*, 3.

In light of the moral pressures of the present ethos, environmental ethical thinkers, both philosophers and theologians, urgently need to reexamine some old questions. Questions concerning the character, meaning, and responsibilities of human power and moral agency, questions integral to any account of moral anthropology, need to be faced. Such questions stretch deeply back into human history. But the reach and magnitude of human power has changed and thus makes these questions more urgent.

Like all living beings, humans influence the world around them. Humans have always had a greater capacity to impact the world than other species, but the capacities we now possess outstrip all previous historical periods. If the ethos of this age is defined at least in large measure by the human capacity radically to change the natural environment, then a concern with moral anthropology seems to have an important place in contemporary environmental ethical theory and practice.

A moral anthropological method for environmental ethics is also requisite today because the traditionally assumed divide between humans and the rest of nature has been severely challenged in the last century and a half by work in the biological and ecological sciences. The human relation to nature has always been and is continually being redescribed. Certainly humans are social beings, inhabiting cultures, building and critiquing institutions, living in response to and making history. But humans are also beings of and in nature. The scale of human efficacy and the choices humans make and fail to make impact the present and future of humanity, the present and future of all life, and require critical ethical consideration in light of the changing understandings of the human relation to the natural world.

Since the publication of Darwin's *Origin of Species*, many traditional understandings of the human relation to nature have been called into question. The assumption of radical human discontinuity with the natural world has largely been replaced by a concern with how to understand humans in relation to other forms of life. Given current scientific knowledge, it is difficult if not irresponsible to maintain the position of a thinker even as great as Rabbi Abraham Heschel. For Heschel, "We can attain adequate understanding of man only if we think of man in human terms, *more humano*, and abstain from employing categories

developed in the investigation of lower forms of life."[16] To claim to the contrary that an adequate moral anthropology requires employing the insights of the biological sciences need not be viewed as a degradation of humanity.

Why should humans be ashamed of kinship with other animals, or our relation to the supposedly "lower" forms of life? Is it possible to understand either "being human" or "human being" in isolation from the human habitat?[17] Heschel's claim betrays a morally troubling, historically deep descriptive and axiological dualism between humans and the rest of nature, as well perhaps as a warranted critique of overzealous scientific reductionism.

Appropriate in response to Heschel is the claim of philosopher Mary Midgley that the proper question to ask nowadays is not what distinguishes humans *from* other animals but what distinguishes us *among* them.[18] It is impossible to deny that humans are animals, in addition to everything else we may be. Whatever we focus on as distinctive about our nature, whether reason, language, or our moral capacities, needs to be understood "not against the laws of our nature, but according to them."[19] While Darwin's work initiated a revolution in our understanding of human nature, debate continues to rage about its philosophical, ethical, and religious implications. That we are natural beings is granted. But the question of our precise location on the continuum between continuity and discontinuity with nature and the normative significance of this question remain open to debate. What is the role of genes in human nature and behavior? What is the role of culture in how we identify ourselves as agents, in what we value, in the practical moral character of our lives? To refer to the biologist E.O. Wilson's evocative metaphor, is there a genetic "leash" on culture, and if so, what length?[20] If it is crucial to consider human distinctiveness in accord with the

16. Heschel, *Who is Man?* 3.

17. With this question I refer to Heschel's distinction between *human being* and *being human*. *Human being* for Heschel is a category within the class of animals, but *being human* for him is irreducible to this status. The question I raise here, contra Heschel, is whether whatever it is that one takes to be distinctive about *being human* can be understood or have meaning in isolation from the animal nature of *human being*.

18. See Midgley, *Beast and Man* and *The Ethical Primate*.

19. Midgley, *The Ethical Primate*, 24.

20. See Wilson, *On Human Nature*, 167.

natural laws of nature, as Midgley suggests, what measure of control and degree of influence do these laws exert?

In thinking through the questions of human power and moral uncertainty through a moral anthropological framework, it is important to try to balance human continuity *and* discontinuity with nature. Against the tendency to emphasize one pole of this continuum over the other, an effort must be made to hold the insights of both views together. For even if humans are a particular mammalian species of animal in continuity with other evolved forms of life, we possess important species-typical characteristics that must be considered if we are really to know ourselves. Evolutionary continuity does not warrant but rather challenges biotic sameness. To disregard human difference is to disregard the insights of biological theory about the typical characteristics of our species and is just as biologically misinformed as a stress on radical discontinuity.

But such disregard for human distinctiveness is much more than a descriptive problem. It is most of all a deeply moral one. Disregarding human difference naïvely neglects the unique and empirically undeniable capacities of the human species to alter the world more radically than any other animal. While every animal of course exerts an environmental impact, only humans face the moral choice of whether to change totally, even to destroy the whole planet. The pressure of this moral choice suggests that a central ethical task of this time is to theorize the human relationship with the larger natural environment without eclipsing the enormous practical relevance of human distinctiveness. What is needed, against the tendencies to prioritize either continuity or discontinuity, is a moral anthropology that holds together commonality and distinctiveness. As will soon be explained, the work of Hans Jonas and James Gustafson provide suggestive resources for a moral anthropology that dialectically affirms continuity and discontinuity, both kinship with and differences from other forms of life.

For this reason and others, responding to the environmental crisis entails entering the "tangled bank" of scientific, philosophical, and theological discourses about the human moral relation to the natural world. This interdisciplinarity is a reflection of the fact that knowing what humans are and who we can be as moral beings is of necessity a multiperspectival task, relating to the various dimensions of human experience and to the various natural and cultural tributaries of the hu-

man moral condition. Humans are not merely cultural, social, biological, rational, language-using or religious creatures. Humans are all of these things and more, inhabiting natural and cultural environments that we shape but that also shape us.

Two Trajectories of the Argument

My argument in this book unfolds along the lines of two trajectories. One of these entails a comparative critique of the environmental ethical projects of Jonas and Gustafson with a central focus on their moral anthropologies. Attending to these thinkers' moral anthropologies serves as an interpretive key to their broader environmental ethical theories and brings into relief their insights and liabilities. Though generally overlooked by the field, Jonas and Gustafson have much to contribute to the sophistication of environmental ethical discourse. Each of them develops their theories with a strong sense of the significance of moral anthropology. And very importantly, they are both keen to the problems of tilting too far toward either human continuity or discontinuity with nature. In addition, though each uses the biological and environmental sciences differently, each seeks to present his ethical theory as appropriately informed by the natural sciences.

Sensitive to the magnitude of contemporary human power and human moral responsibility to the natural environment, Jonas and Gustafson both attempt to hold together human biological continuity with nature and concern for the moral distinctiveness of the human within nature. They undertake their projects in relation to the "tangled bank" of human biology, religiosity, and morality. In this process they aim to do justice to the complexity of the human relation to nature in our technological culture and in a time of environmental crisis. In these various ways, then, Jonas and Gustafson are thinkers whose works engage some of the most significant tasks of environmental ethics.

However, my burden is not simply to interpret what Jonas and Gustafson themselves have already said so well, though since they have been generally unappreciated, this in its own right is a valuable exercise. While I do grant significant attention to their theories, my ultimate purpose, building upon their insights, is to recommend an ecotheological ethics of responsible participation as a promising framework for future theological work in environmental ethics.

My aim is not to present or defend a wholly new ethics. Rather, I intend to develop the insights of Jonas and Gustafson in order to suggest an understanding of the human moral relation to nature that is biologically grounded and theologically and morally viable. I believe that part of the promise of this ecotheological ethics of responsible participation is in the way that it can account for the moral and theological significance of our participation within and our responsibilities for natural processes, and in doing so challenges the false opposition between anthropocentrism and nonanthropocentrism in environmental ethics. But before proceeding, I want to conclude this introduction by delineating the theological dimension of my project through a summary of the differences and complementarities between Jonas and Gustafson's theological orientations.

According to Jonas's own claims, theology plays only a peripheral role in his work. He does not dismiss theology outright but argues instead that while his philosophical vision is not incompatible with certain theological convictions, it does not require theological backing. As he puts it, theology is "a luxury of reason" unnecessary to the integrity of his theory. Furthermore, he claims that ethics generally ought not to turn to theology for an account of moral motivation. His point, as I will discuss in detail in later chapters, is that being's value is intuitively obvious, human experience testifies to it, and the intuition of this value alone should be sufficient to motivate and bind responsible human action toward the natural world. On his own account, then, theology is treated as an "adjunct" of morality.[21] This placement of theology in Jonas's work reflects the centrality he grants to what he calls "the idea of humanity" in the normative dimension of his ethics.

Though Jonas's stated ethical methodology suggests this marginal role for theology, this is somewhat betrayed by what I interpret as theology's constructive function in some of his writings. Indeed, Jonas's profound concern for the vulnerable futures of the natural world and human life, I will suggest, lead him to an appreciation for the significance of the theoethical imagination. I affirm Jonas's views here and his naturalistic defense of them and think that his insights can constructively supplement Gustafson's.

21. I borrow this apt term from Sheila Davaney's characterization of Kant's view of theology in his ethics. See *Pragmatic Historicism*, 6.

In contrast to Jonas, Gustafson's ethics is very self-consciously theological. He argues for the hermeneutic and ethical centrality of what I will specify later as a critical religious naturalism. The patterns and processes of nature so central in Gustafson's theory serve as empirical indications of the divine ordering of the world, and thus discerning their moral valence is a crucial task of the religious life. Gustafson's controlling methodological criterion is that theological claims cannot be significantly incongruent with the claims of science. This leads him to reject granting theological claims a priori status. In place of this, he deploys a methodological strategy that entails critical movement back and forth between theological tradition, human experience, and scientific knowledge. Gustafson's views on the unity of knowledge, the common structures of human experience, and the critical congruity of theological and scientific discourses are strongly featured in this strategy.

The overall character of Gustafson's theology can thus well be described in terms of the revisionist trajectory in some recent theology. Unlike Jonas, Gustafson treats moral questions within a decidedly theological context. And yet against a strong revelationalism or biblicism, he does not treat the biblical narrative or the deep grammar of the Christian tradition as theologically determinative for the moral life. While confessing his indebtedness to the Reformed theological tradition, his theology is not parochially confessional. Instead, it is more in keeping with a lineage associated with theologians Paul Tillich and David Tracy in which theological traditions remain open and revisable in light of contemporary experience and knowledge.

Given this lineage, Gustafson's theological task entails walking a fine line. He aims to demonstrate the public significance of his vision while not abandoning its distinctive theological character. Put differently, he aspires to communicate the relevance of his theological ethics to broad public moral concerns, such as the environmental crisis, without distancing himself too far from the theological tradition he claims to represent. I strongly affirm this aspiration and will explore in later chapters the degree to which it can be said that Gustafson attains it.

Despite these very different theological orientations, there are ways in which the theological aspects of Jonas's and Gustafson's projects can be interpreted as complementary. For one thing, both operate with deeply naturalistic methodological commitments. Jonas's naturalism is shaped largely by a phenomenological existential tradition in philoso-

phy, and yet remains open to theological insights. While Gustafson's naturalism is shaped by a revised Reformed theological tradition, one of the strengths of his work is the degree to which it invites interaction with non-religious philosophical interlocutors as well as with other religious visions.

And second, the theological insights of both Jonas and Gustafson, different as they are, are strongly influenced by a common concern for the future of nature and the human moral place within it. As I will develop more fully later, I take the constructive role of theology in Jonas's work to be rooted in his sense of the moral urgency of the environmental crisis. In light of this, and somewhat against his own claims, his imaginative theological work becomes a prominent task of environmental moral responsibility. Gustafson's theological vision is similarly influenced by a vital moral concern for the natural world. The theocentric vision that arises in part out of this concern becomes a lever for Gustafson's revisions to the way humans think and speak about God and the human good.

Along with both thinkers, this book affirms concern for the plight of the natural world as a crucial point of departure for theological ethics in our time. Through comparative critique of Jonas's and Gustafson's projects, the chapters to follow point toward an ecotheological ethics of responsible participation as a fertile option for this work, one that is as deeply naturalistic and as deeply theological as the moral pressures of our time demand.