

Environmental Ethics and Climate Change?

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Introduction

The central question posed in this paper is whether the agenda of environmental ethics and the ethics of climate change overlap, and if they do, to what extent. Part of my concern in this regard, is the question whether climate change should be conceptualized as an environmental challenge in the strict sense of the word, and if so, whether some of the gains of environmental ethics can help us to also respond to the ethical challenges posed by climate change. The converse of this question is how narrowly or widely environmental ethics should be conceptualized, and depending on the answer we provide, to determine what environmental ethics can offer to an ethics of climate change.

To start to address these questions, I would like to begin this paper with an overview of the historical emergence of environmental ethics over the last 4 decades, summarizing its central questions, concerns and theoretical positions, and then turn my attention to the central issues confronting us in an ethics of climate change. This will put us into a position to compare the respective agendas of environmental ethics and an ethics of climate change, and to draw some conclusions on the manner in which they can mutually reinforce one another.

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The historical emergence of environmental ethics and its central questions

While environmental ethics as a practice coincides, but is not limited to a wide social movement called environmentalism, and while environmentalism is often characterized by activism and extreme points of view, environmental ethics as a much more sober theoretical enterprise emerged within the context of developed countries in the early seventies of the previous century with seminal articles by Norwegian philosopher Arne Naess, and Australian based philosopher Richard Routley (later Sylvan). In 1973 Arne Naess introduced the important difference between a shallow and a deep, long range ecology movement, arguing that environmental concerns entail much more than merely worries about pollution and resource depletion that threaten our lifestyles as consumers. He rightly points out that this concern only scratches the surface, and does not address the deeply seated root cause of our environmental problems, namely a certain notion of self and of self-realization that informs our consumerist lifestyles.

For Naess, our environmental problems follow from a narrowly conceptualized egotistical self that is realized through the consumption of material goods. Naess sketches this self as isolated from the social and ecological preconditions for life in a commonly shared world, and he also portrays this self as immature. On the other hand, Naess argues for a more mature and expanded self that acknowledges that it is embedded in wider circles of being, and draws its life-orientation from a sense of deep connectedness with these wider circles of being, whether they are the social circles of the family, friends, and the community, or the environmental circles of immediate geography and its connection to the wider ecological systems within which it is embedded.

It is this notion of connectedness, Naess argues, that is lacking to a large extent in the modern world, preventing us from really engaging with the environmental concerns of our day. In the so-called deep-ecological platform that he articulated some years later with others in 1984 (Naess and Sessions 1995) to give a practical impetus to environmental ethics, Naess emphasized an ethics of a simple life to ensure that other individuals and species can thrive. He also pleaded for biological and cultural diversity as preconditions for life on earth to flourish, and pointed out that an exploding human population is undermining these preconditions.

Richard Routley, on the other hand, wrote an equally influential article also in 1973, posing the question whether, in the face of the environmental problems of the time, we need a new, environmental ethics. In this article he confronts us with the question whether the human ethics that we have drawn upon in the past,

is strong enough to effectively enable us to engage with the ethical challenges following from environmental degradation and ecosystem destruction. His conclusion is that a human-centered environmental ethics is an oxymoron, and that we need a new ethics of the environment that takes nature itself as central point of departure. His argument is that nature, or elements of nature, and not only humans alone, should also be regarded as morally considerable, in the sense that they have intrinsic value. As Routley sees it, the intrinsic value of nature moves us beyond the instrumental value theories of human-centered versions of environmental ethics that value non-human life and entities only with reference to the satisfaction of human interests.

In these two articles, the central questions and concerns of environmental ethics have been articulated, if not explicitly, then in an implied manner as well, as the lines of tension between different approaches characterizing the discipline of environmental ethics as it subsequently expanded to different continents and adopted different value positions. The following can be included in the list of the concerns and questions that brought environmental ethics initially into existence:

- Can we continue to allow the world's population to grow in an unrestrained manner, and in this way keep on adding to continually growing pollution, the depletion of resources, and the destruction of ecosystems?
- Can we continue with an unrestrained exploitation of natural resources, without taking into account its damaging and destructive effects on fragile ecosystems that provide us with services like clean air and a cool climate that provide the very basis of life itself?
- Do we really live in a world of super-abundance of resources with no limits to their exploitation?
- Can we really solve our environmental problems by merely relying on more science and more technology, without changing the basic framework within which we utilize science and technology?
- Can we really continue with models of policy- and decision-making in which we only take seriously our own short-term interests, without really considering the interests of generations of humans and non-humans that will live in the future?

- Is economic value really the only basis that we should use for policy- and decision-making, or should we expand our value-horizon to include other values?
- Do humans really stand apart from and above nature, as it were in a position of autonomy, so that they can control nature and ecosystems for their own benefit?
- Are we as humans really the only point of departure when it comes to moral decision-making, with animals and other non-human entities only having value in so far as that they serve our human interests?
- What kinds of lives are we realizing with our current consumerist lifestyles, and what kinds of selves and what kinds of identities underlie these lifestyles?
- Is it possible to think differently about ourselves and our identities so that we can assume different kinds of lives that do not confront us with the environmental problems that exist today?
- What should be done to transform the situation of environmental crisis that we find ourselves in?
- What should be done to establish and maintain an environmentally sustainable world?
- How do we define the goals for our lives, and how do we determine what is a good life of a good person in this world, faced with the environmental problems we have today?

It should be borne in mind, though, that these questions did not emerge all at the same time, but gradually over time. Robyn Eckersley (1992) reminds us that the problems that we today identify as environmental problems were at first not recognized as such. During the 1960s they were registered as problems reflecting bad planning, lack of participation in decision-making processes, or inequitable distribution of the benefits and burdens of industrial development, leading for instance to pollution, the over-use of pesticides, or the location of nuclear power-plants, toxic waste dumps, and large scale industrial developments where they have negative effects on humans – usually those constituting the poorer parts of society. In this context, the solution to these problems were typically sought in better planning, the effective participation of all affected parties in decision-

making, and more equitable distribution of the costs and benefits of industrial development. During this time, however, the framework within which these problems emerged, namely the scientific-technological world of production and consumption, and its assumption of unlimited resources were not really criticized, except from the margins of society that started to question the nature and limits of instrumental rationality, dominated by efficiency values characterizing society.

During the 1970s, Eckersley (1992) argues, environmental problems were conceptualized within the framework of a crisis of survival. In 1972, the Club of Rome published its report (Meadows 1972) on the *Limits to Growth*, while *The Ecologist* published in the same year its *Blueprint for Survival*. While many people dismissed these publications as alarmist doom's day messages, both emphasized the basic point that the world cannot continue with business as usual in politics and in the economy, as if nothing is amiss. Both emphasized the realities of environmental degradation and resource depletion, and that there are physical limits to growth in this world. With, in particular, the metaphor of space-ship earth, their message was that the earth is fragile, and that it is one big, complex whole that we do not fully know, and thus that the earth and its systems need to be treated with much more care and caution than we have done up until that point.

The solutions to environmental problems that were typically called for in the 1970s basically entailed austerity measures to face the crisis. On an individual level, the call was to make whatever sacrifice is necessary to survive; while on a governmental level, the call was for tighter measures of control to ward off disaster. From this point of view, no price was deemed too high to pay, not even to sacrifice freedom and democracy, and to become subject to centralized, authoritarian governments. Furthermore, the call for limits to growth, or in some instances even zero-growth economies, coming from this time, clearly had the implication of bringing world development to a standstill, locking the poorer parts of the world into their situation of poverty, while keeping the position of power of the economically developed world intact. It is no wonder then that many theorists started to question this diagnosis of the environmental crisis, and started to look for radical solutions, i.e. addressing the root causes of our environmental problems.

For Eckersley (1992), this radical line in the environmental movement started to gain prominence in the 1980s when the focus shifted to unmask possessive individualism, private property, minimalist governments and market freedom as the root causes of our environmental crisis – understood as the

depletion of resources and the destruction of ecosystems – informing as they do a globalized culture of consumerism. Questioning the price of progress and the dominance of instrumental rationality as it not only affected natural systems, but also social and cultural systems as they became more and more subject to the standardization of globalization, this line of thinking leads us to conceptualize the environmental crisis as a crisis of character and culture: it raises deep questions about the culture and the identities we choose to realize in this world.

It is therefore ironical that the environmental crisis at the same time emerged as an opportunity to emancipate us from traditional structures and the dominant notions of culture and self-realization that leads to depletion of resources, ecosystem destruction and unsustainability. Rethinking the foundations of, and the conditions for autonomy, freedom, self-determination and human identity, as well as the manner in which it impacts natural systems and our relations to it, this line of thinking can also be conceptualized as offering us ways and means to reconstruct and restore damaged ecosystems and places, and to experiment with lifestyles that can turn us towards ecological sustainability.

The far-reaching environmental implications of the above emerge from the radical questioning that ensued of our inherited ideas, beliefs, values and knowledge, in that the relationships between human needs, technology, and self-image are critically examined from a value rationality point of view (Flyvbjerg 1993) by asking apparently very simple questions: What do they lead to? Is everything in order with it? If not, what should we do about it? In this regard, the questions that are posed include: To what extent do we really need these kinds of energy sources, these means of transport, these industries and technologies to live meaningful lives? What does it mean to live a rich and full life? How does the scheme and structure of our needs arise, and is this the only possible scheme and structure that can exist? How can we overcome the destructive logic of capital accumulation and consumerism? How can we overcome systems of domination and exploitation that lead to environmental destruction? How can we overcome any other system of domination that supports and reinforces environmental destruction? (Eckersley 1992.)

With this in mind, three conclusions can already be offered about environmental ethics: In the first place, it entails a radical expansion of what should be included in the domain of moral considerability. While traditional ethics maintains that only humans are morally considerable, environmental ethics, depending on the particular theoretical stance involved, expands this domain

to include animals, plants, species, ecosystems, the land, and even life itself. In the second place, environmental ethics derives its importance from its focus on the complex system that makes all life on earth possible. In the third place, and following from the two previous conclusions, environmental ethics clearly is not only about nature, natural entities and the biosphere, but also, and perhaps primarily about our interaction with nature, natural entities and ecosystems, and everything that shape our conceptualization of our responsibilities to these entities and systems.

Different theoretical models in environmental ethics

Holmes Rolston III (1991: 92) once defined the practical task of environmental ethics as the conservation of life on earth; and its theoretical task as finding a value theory profound enough to support this ethics. If the questions listed above represent the practical task of environmental ethics, different theoretical models in environmental ethics represent different efforts to articulate value theories to support that practical ethics. In this regard, three main approaches to value theories in environmental ethics can be distinguished, namely instrumental value theories, intrinsic value theories, and radical value theories.

Instrumental value theories in environmental ethics are mostly anthropocentric in character. (Norton 1991; Brennan and Lo 2011) They take, for various reasons, only human beings as morally considerable, i.e. as entities with intrinsic moral value that need to be respected for their own sake, while everything else is valued in terms of the manner in which it contributes to or detracts from the satisfaction of human needs. This means that everything else has no value in and of itself that needs to be respected; it only has value in so far as it serves as an instrument that can be used to satisfy human needs. Within this framework, a conservationist and a preservationist position can be distinguished from one another, but only in so far as they focus on different kinds of human values. Both still emphasize the instrumentality of nature and natural entities.

Conservationism (Norton 1991; Fox 1995) represents that position in environmental ethics in which some limits to the exploitation of resources are recognized, not because the use of natural resources may be harmful to nature or natural entities, but because it may hurt humans living now or in the future. From this point of view, resource development is qualified by the notion of wise use, or formulated in contemporary terms, the notion of ecological sustainability. What it boils down to, is to ensure that our ability to use natural resources in the future

is not compromised by our use of it in the present. Scientific knowledge clearly plays a big role in determining what constitutes wise use – meaning that scientific management plays a big role in the conservation of resources. Conservationism is also characterized by a model of utilitarian thinking in which the greatest good for the greatest number of people over the longest period of time forms the basis of decision-making. However, the problem that many people have with this approach, is that all valuation per definition takes human interests as point of departure, making it difficult, if not impossible, to value anything that falls outside the ambit of an anthropocentric cost-benefit analysis.

Preservationism (Norton 1991; Fox 1995) is apparently an improvement on conservationism, in that it promotes the existence of at least some parts of nature without any interference from humans. Wilderness areas, or the natural cycles of water and carbon and nitrogen circulation are examples in this regard. On close inspection, though, the value of these entities rests on the non-consumptive use that can be made of them, and as such, human interests still constitute the central point of departure. Wilderness areas or unchanged ecosystemic processes, for instance, are valued for the fact that they provide us with essential life-support services, or can serve as laboratories in that we can study the functioning of natural systems. These areas can also serve as early warning of problems that may emerge in other areas of existence, or they can be used as a genetic stockpile to replenish our food system if it becomes necessary to do so. Other non-consumptive uses include the recreational, aesthetic or spiritual values that can be experienced in nature, or using nature as a space for psychological regeneration – but ultimately, all of these uses are still human uses of nature, utilizing as it were the services offered to us by ecosystems. This approach, however, moves the argument forward in that the non-consumptive value of nature is focused upon as something that needs to be preserved. This emphasis on the preservation of ecosystem services, however, is not satisfactory to everyone in environmental ethics, and thus we also find a shift being made to intrinsic value theories in which the value of nature in and of itself is foregrounded.

Exponents of intrinsic value theories often claim that this approach constitutes the only legitimate position in environmental ethics. They base this claim on the assumption that human interests cannot be the only basis of valuation. Natural entities, they argue, have value in and of themselves that often, and perhaps mostly, are not recognized from a human scheme of things, and as a result, natural entities are reduced to something less than they actually are. It is to make room for this value that natural entities may have irrespective of any human valuing

that bio-centric and ecocentric positions in environmental ethics have emerged. In bio-centric positions, the mere fact of being alive forms the basis of intrinsic value and therefore of moral considerability (Taylor 1986); while ecosystemic approaches goes further in saying that life does not exist independently from the complexity and diversity characteristic of ecosystems (Leopold 1949; Callicott 1989 and 1999). For Rolston (1988, 1989 and 2012), earth systems on which ecosystems are dependent for their functioning should also be added to the list of that which deserves moral consideration and respect in their own right.

Radical value theories in environmental ethics (Fox 1995; Brennan and Lo 2011) aim to address the root causes of our environmental crisis, and thus not only foreground what these root causes could be, but also call for the transformation of society to eradicate those root causes. In the sections above we have already mentioned the deep ecological view of Arne Naess that consumer culture and the notion of self-realization it entails lies at the root of our environmental problems, and that only a transformation in our self-identity will help us to overcome our environmental problems. On lines different from that of deep-ecology, eco-feminists, for example, point to the logic of domination characteristic of patriarchy that can be found both in the domination and exploitation of women and that of nature. This logic of dominion entails a combination of dichotomous and hierarchical thinking that leads us towards simple binary categories (for example male-female; strong-weak; rational-emotional; self-other; culture-nature) and privileging the first term in the binary over the second, which then serves as a basis to establish and perpetuate social relations of domination and exploitation in which men typically win and women and nature typically lose. Some ecofeminists therefore call for a transformation of this logic of domination with a view to redefine the male-female and the culture-nature categories in relational terms. Karen Warren (1990) and Val Plumwood (1993 and 2002), for instance call for a transformation of both the notions of male and female, to make room for the notion of a relational self – in which the relation to nature also plays a crucial role. From this transformation in the concept of self, then, they proceed to also redefine the relationship of humans with nature.

From an overview of these three theoretical models it is clear that environmental ethics appeals to a wide spectrum of values in which the emphasis respectively falls on (a) human interests in the continuation of essential ecosystem services; (b) respect for the intrinsic value of nature, natural entities and natural processes – regardless of any use humans can make of them; and (c) the radical transformation of human structures and practices that lie at the root of

our environmental problems, and prevent us from establishing sustainable lives individually and collectively.

The ethical challenges of climate change in broad outline

The ethical challenges related to climate change have been systematically discussed predominantly since the 1990s by ethicists such as Henry Shue (1992, 1993 and 1996) and Dale Jamieson (1991, 1992, and 1996) but most of the work in this area has been done in the last decade since 2000 (See Gardiner *et al.* 2010) In these studies, the ethical challenges of climate change have been linked, on the one hand, to the *causes and effects* of climate change, and on the other hand to the impact of *efforts to respond* to climate change. (COMEST 2010) The *effects* of climate change are fairly obvious, and include melting of ice on the polar caps and high mountains, sea level rise, droughts in certain areas, floods in other areas, hurricanes, typhoons, cyclones, changes in the distribution of disease vectors, the loss of biodiversity, and human catastrophes and tragedies related to the above, for instance migration because of droughts or sea level rise, people unexpectedly becoming victims of extraordinary weather events, the loss of livelihoods, the loss of cultural heritage, and the loss of human dignity. Another area, in which ethical challenges may emerge around the effects of climate change, is in *efforts to adapt* to these effects, or in the lack of policies and strategies to respond to these effects (i.e. failure to take measures to adapt to climate change). Besides failure to act in response to the effects of climate change, embarking on *ill-considered responses* to it may cause as much harm as the initial climate change event or trend at which a response is targeted. (COMEST 2010)

The ethical challenges of climate change can also be linked to its *causes*, and *efforts to mitigate* these causes. While the accumulation of greenhouse gases like CO₂ in the atmosphere is the direct physical cause of climate change, the ethical challenge of mitigation can clearly only be restricted to the reduction of human emissions of greenhouse gases – since we can, for example, do nothing about the greenhouse gas emissions caused by the eruption of volcanoes. (COMEST 2010) However, it is within this narrower field of mitigating human induced greenhouse gas emissions that a number of serious justice issues emerge. In the first place, those that contribute, or historically have contributed the most to climate change, currently suffer the least from its consequences (by way of becoming victims of extreme weather events), while, in the second place, those who currently already suffer the most from the consequences of climate change, typically have

contributed the least to it, and, in the third place, typically have the least capability of adapting to climate change, and is therefore dependent on the assistance and aid of other countries to build the capacity for adaptation. In the fourth place, climate change negotiations, for example within the framework of the UNFCCC, are typically dominated by the power of large CO₂ emitters, so that the voices of small, powerless countries in the determination of, for example, emissions targets and mitigation strategies, are hardly ever effectively heard. (*White Paper on the Ethical Dimensions of Climate Change* 2007)

However, logically prior to any effort to respond to climate change, whether by way of mitigating its causes or adapting to its effects, there seems to be a clear duty on any stakeholder with the capability to do so, to obtain adequate and scientifically sound knowledge about the phenomenon of climate change, on its causes and how to mitigate them, as well as its effects that we cannot avoid learning how to adapt to that – and to share that knowledge with others that do not have the capability to obtain or interpret that knowledge. (COMEST 2010)

What makes things difficult in the area of knowledge gathering and dissemination, however, is the factor of scientific uncertainty, caused by the nature of the climate change problem. Climate change takes place within the realm of a highly complex system that displays threshold behaviour, which makes it in principle impossible to make predictions about the effects of climate change beyond certain levels of accuracy. Filling in observation gaps, and overcoming theoretical uncertainty by developing more refined scientific models will not help us to overcome the fundamental uncertainty we face regarding the cognitive limitations of studying and trying to model climate as a complex system. One of the implications of this is that any policy regarding the mitigation of, or adaptation to climate change takes shape within the context of this fundamental uncertainty, and therefore has to be robust and resilient, i.e. able to still function in the face of unexpected events and information unfolding around climate change. (COMEST 2005)

A further aspect of the ethical dimensions of climate change was highlighted by Stephen Gardiner (2006; see also Gardiner, 2011) when he characterized climate change as a perfect moral storm. Sketching climate change as an area where three “storm systems” that are destructive in their own right, overlap to form a super-destructive system; he points to a number of factors that make it easy for us as humans to deny any responsibility for climate change, or to do nothing about it, or to do both. In the first instance he mentions the dispersal

of the causes and effects of climate change, passing the effects of climate change on from the richer parts of the world to the poorer parts. By this he refers to the well-known phenomenon that the causes of climate change may be pin-pointed, but that its effects are dispersed throughout the whole of the world. This he identifies as the “global storm” characterizing climate change.

He also refers to the fragmentation of agency when it comes to causing climate change, as well as responding to it. Billions of people in their consumer behaviour, and millions of industrial plants all over the world contribute to climate change, and millions of agents are confronted with the effects of climate change and have to act on it, but they are not unified in a single framework of agency. On the contrary, as agents they are isolated from one another, and in terms of time, are also intergenerationally removed from one another. This he refers to as the “intergenerational storm” characterizing climate change, by which we basically pass the effects of climate change on to future generations.

Besides institutional inadequacy ranging from the international to the local levels when it comes to responding to climate change, Gardiner also mentions our failure to grasp the character and meaning of climate change because of standard theoretical approaches that make it very difficult, if not impossible to articulate and respond to the ethical challenges related to climate change. In this regard, he mentions, for example, rational choice theory and conventional financial discounting, bringing about the storm of “theoretical incredulity”. Gardiner therefore argues that we should overcome each one of these three “storms” if we wish to adequately articulate the ethical challenges of climate change, and start to adequately respond to them.

Environmental ethics and climate change?

With the above in mind, a few concluding remarks can be made to answer the dual question whether the agendas of environmental ethics and climate change ethics overlap, and to what extent the strong points of environmental ethics can help us to address some of the ethical challenges brought about by climate change.

1. Environmental ethics and climate change ethics can be seen as two distinct fields of theoretical discourse in terms of their respective histories of emergence, as well as in terms of the distinct details they address. On a certain level of generality, however, there is a significant

overlap in the substantive themes that they address, such as the destruction or degradation of ecosystems, the loss of biodiversity, the maintenance of life-sustaining ecosystem services, the struggle to establish the basis for sustainable living, the injustice of shifting the burdens of pollution, environmental degradation, and climate change to others, concerns about the impact of present human behaviour on future generations of humans and other living entities, and concerns about cultural trends and theoretical approaches that place stumbling blocks in the way of effectively addressing environmental issues or the challenges of climate change. From this general point of view, it is not easy to make a distinction between climate change ethics and environmental ethics. To an extent then, what is done in environmental ethics on the level of substantive discussion of themes such as those listed here, can have a direct bearing on the discussion of the same general themes in climate change ethics, and *vice versa*. When it comes to intricate details, however, environmental ethics and climate change ethics pose distinctive intellectual challenges that put these two fields indeed apart from one another, but not unrelated to one another.

2. The theme of mitigating climate change by reducing greenhouse gas emissions, and the theme of adapting to those effects of climate change that we cannot escape, are apparently unique to climate change ethics. On closer analysis, however, it becomes evident that the mechanisms proposed to reduce greenhouse gas emissions, for instance reforestation, shifting from carbon based energy to renewable energy, using wind, solar, hydro and geothermal sources of power, producing goods and services in a more efficient manner, saving on energy and material, are all measures that at the same time are required to move us from a mode of unsustainable living to one that is ecologically sustainable. Similarly, it can be shown that the strategies required to adapt to climate change, in particular in the more arid and developing parts of the world, form part of a widely based process of social learning that at the same time addresses issues of human development, overcoming injustice, and promoting human dignity – that are also crucial prerequisites of sustainable living.
3. Environmental issues as well as the challenges of climate change confronts humanity with the cognitive limitations of modeling

complex systems that in principle cannot be known fully, making any predictions about the future behaviour of these systems very difficult, and therefore calls for a cautionary approach when it comes to efforts to manage these systems. It is thus important to note that both environmental ethics and climate change ethics call for management policies and strategies that are robust and resilient – i.e. at the same time can continue functioning even when confronted with unexpected events, and able to quickly learn to adapt to rapidly changing circumstances.

4. Climate change is caused to a significant extent by human behaviour, shaped as it is by conventional practices, and notions of self-identity and self-realization that also give rise to environmental problems that are not directly related to climate change. This is, for instance, the case in some loss of biodiversity, and some destruction of ecosystems. Accordingly, the work done in environmental ethics to address the root causes of our environmental problems, in particular from the angle of radical environmental ethics, clearly also have a bearing on those factors underlying the direct causes of climate change. In this context, the transformative agenda of radical environmental ethics has much to offer to climate change ethics addressing issues regarding mitigation and adaptation. Similarly, the emphasis that has been placed in climate change ethics in recent times on approaching climate issues indirectly by focusing on so called co-benefits (The Hartwell Paper 2010), i.e. adopting policies that not only have positive effects in addressing climate change issues, but at the same time also have positive effects in other areas, such as addressing environmental or development issues (killing many birds with one stone, as it were), have much to offer to environmental and other areas of ethics.
5. Like environmental problems, climate change is the result of a complex system of the interaction between human nature and natural processes. Both areas are characterized by the issues of the dispersal of causes and effects, the fragmentation of agency, the inadequacy of official structures to act effectively, as well as cognitive constraints to model complexity that all influence our ability to articulate the ethical challenges we are facing, and the responses we have to develop to them. In both environmental ethics and in climate change ethics

it is clear that ethicists and policy-makers struggle with the issue of developing an ethics that goes beyond the constraints of conventional ethics that is based on clear notions of certainty and individual agency, and can deal with the implications of a world characterized by the need for collective action in the face of fundamental uncertainty and fragmented agency. If there is an area in which environmental ethics and climate change ethics can jointly develop further in the future, it is in this area of an ethics of uncertainty and complexity.

To summarize then: With the considerations that have been discussed in this paper, it can be answered: yes, there is a clear overlap in the agendas of environmental ethics and the ethics of climate change; and yes, the gains of environmental ethics has much to offer in the discussion of issues in the area of climate change ethics. The converse is also true, in that new avenues explored in climate change ethics can make a positive contribution towards the discussion of issues in environmental ethics. To my mind, the most productive area for the further development of both environmental and climate change ethics will be in the articulation of an ethics of uncertainty and complexity. When it comes to moving beyond a certain level of generality, however, environmental ethics and climate change ethics pose distinctive intellectual challenges that put the two related fields somewhat apart from one another. ■

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