

**A WORLD OF OUR OWN: CLIMATE CHANGE ADVOCACY
IN THE ANTHROPOCENE**

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ABSTRACT

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Rowan Howard-Williams

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The effects of human impacts on the environment are often not comprehensible to people and have to be given meaning through communication. Such impacts, most prominently climate change, have increased to the extent that human actions are the dominant force in planetary biophysical systems. Yet these impacts are for the most part unintentional and not subject to democratic control. A critical discourse analysis of campaign material and media content examines how three advocacy groups – 350, a climate activist organization, The Breakthrough Institute, a think-tank, and The Nature Conservancy, an established conservation organization – discursively construct climate change. The three groups acknowledge the need to more consciously or deliberately manage environmental impacts, and yet all have very different assumptions, objectives and tactics in their advocacy. Analysis of the communication activities of the organizations and how their ideas are represented and contested in other media shows not only how they construct the particular issue of climate change but their relationship to societal power relationships. How the organizations build their case for action involves discursive acts which define or re-define the boundaries between nature and society and what (and who) is to be included or excluded from political concern. Unless directly challenged, these new formations will reproduce existing power structures and inequalities.

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Chapter 1 – Introduction: The dreadful burden of choice

In December of 1962, John Steinbeck accepted the Nobel Prize for Literature at the City Hall in Stockholm. After ruminating in his acceptance speech on the “nature and direction of literature,” Steinbeck (1962) turned his attention to the greatest existential threat of the time, the prospect of nuclear annihilation:

The door of nature was unlocked and we were offered the dreadful burden of choice. We have usurped many of the powers we once ascribed to God. Fearful and unprepared, we have assumed leadership over the life or death of the whole world, of all living things. The danger and the glory and the choice rest finally in man. The test of his perfectibility is at hand. Having taken Godlike power, we must seek in ourselves for the responsibility and the wisdom we once prayed some deity might have. Man himself has become our greatest hazard – and our only hope.

Though the threat of global nuclear war has, for the moment, faded, Steinbeck’s warning is no less relevant now than it was at the time. A host of new human-created risks has emerged, climate change chief among them, which imperil the civilization that gave rise to them along with all other life on Earth. Humanity’s impact on the functioning of the planet is so pervasive that we have given it a name: the Anthropocene, the age of humans – a new geological era that is defined by the collective choices made by human societies.

Having this type of influence over the planet fundamentally alters the relationship of humans to their environment. Environmentalism arose to protect the natural world – and the people who depend on it – from the destructive consequences of industrialization. But in the Anthropocene, a world dominated by the impacts of humans, this dynamic is altered. The reach of human activities is such that it is no longer possible to avoid

impacting the natural world. The choice facing humans is not what parts of nature we wish to protect, but what kind of nature we wish to create – and how to go about creating it. Human impacts on the environment are for the most part outside the direct experience of most people, and thus have to be given meaning through communication.

This dissertation analyzes public campaigning and debates over issues of global environmental risk, with particular focus on climate change. Climate change is emblematic of humanity's planetary impacts, its causes tightly bound to the organization of modern society. Making choices about how to address climate change also therefore requires addressing social relationships and institutions. The processes which drive climate change are not for the most part deliberately enacted but are the unexpected outcomes of political and economic structures and practices. This has large implications for democratic citizenship. In an era when climatic trends are shaped by human actions, opening up decision-making processes over the direction of environmental impacts is crucial, given the potentially huge effects on people's lives.

The three case studies in this dissertation examine how advocacy groups discursively construct issues related to climate change and their proposals for redefining the politics of the human-nature relationships in the Anthropocene, and the resonance of these ideas in wider public discourse. Questions of power are central to this analysis – if humanity collectively is responsible for deciding the state of the planet, it is important to know who gets to decide and how such decisions are made; who in particular bears the burden of choice. Mediated discourse is fundamental to how climate change is understood and acted upon, and to the maintenance (and challenging) of societal power

relationships more broadly. The aim of this dissertation is to investigate how advocacy organizations contribute to public discourse on politics in the Anthropocene; the implications of different discursive formations not only for how humans relate to the natural world but the extent to which they challenge or support social structures bound up in these relationships and alter the power dynamics of who gets a say in deciding the future of the planet.

Impact and control

It is a common lament amongst environmentalists that the environmental crises which face our societies are not being met with the level of social or political action they seem to warrant. As Ulrich Beck (2010) asks, “Why is there no storming of the Bastille because of the environmental destruction threatening mankind, why no Red October of ecology?” (p. 254). There are of course many different answers to this question, encompassing the particular psychological, political and organizational characteristics of environmental problems. But behind all of this lies the broader question of how human society relates to the natural environment which sustains it. The dominant (though not uncontested) conception of nature in Western societies at least from the scientific and industrial revolutions saw it as a limitless resource to support human progress and development, which could be exploited with little regard to the consequences. Initially, the scale at which the use of natural resources took place meant that this was essentially true; nature could provide all the resources and absorb all the wastes of human activity. As industrialization expanded and intensified, its environmental consequences started to become more apparent.

The primary orientation towards the natural world in industrial society was to dominate and control it, with humans seen as separate from nature. As the environmental consequences of human industry became increasingly unavoidable, two things have become apparent in terms of society's relationship with the environment. One is that the very distinction between humans and the environment, nature and society, is increasingly untenable. Of course, this distinction never had much of a solid basis to begin with. As well as always being a part of the larger ecosystems in which they are embedded, humans and their societies have always depended on natural resources and processes. But as the scale and reach of human activity expanded, aided by the vast power unleashed by the burning of fossil fuels, so too did its impact on the natural world. Indeed, as Bill McKibben (1989) argued in his book *The End of Nature*, there is essentially no part of the planet free from the influence of humans: "the way of life in one part of the world in one half-century is altering every inch and every hour of the globe" (p. 46). In the Anthropocene, even the weather we experience is not 'natural,' in the sense that the human influence on the planet's climate changes planetary weather cycles. Despite the extent of humankind's impact on these processes, however, these effects are for the most part unintentional and uncontrollable. The irony of modernity is that the drive for control of the natural world, its precise understanding through science and rational use through industry, has resulted in a loss of control of the processes that it set in motion. Though climate change, for instance, arises from human activity, its effects are uncertain, probabilistic and have no simple means of being avoided.

These two factors – the impact of humankind on the global environment, and its lack of control over these impacts – have wide-ranging political implications. These changes have been theorized in number of different ways. For instance, social theorists including Ulrich Beck (1992) and Bruno Latour (1993) have argued that ecological crises such as climate change are transforming social relations. A common theme in this analysis is that politics, in the broadest sense of collective decision-making, must play a greater role in matters of environmental harm. For Beck (1992), society becomes increasingly oriented around “risks,” the threats to society that arise from society itself. Nature and culture, science and politics, are inextricably bound together, with one not reducible to the other as the externalities of modern societies can no longer be kept external. Thus, these unintended consequences must be incorporated as part of the normal process of politics. Latour (2003) conceptualizes environmental risks as networks, dense entanglements of “unexpected associations between heterogeneous elements” (p. 36). Tracing these connections and bringing this array of elements into the domain of politics raises issues of representation, visibility and discourse and points to the importance of communication. The consequences of our decisions and actions in business, in science and in everyday life can no longer be ignored or treated as externalities. What is required is recognition of the uncertainties and ambiguities which link social actions and their consequences and an acknowledgement that the way we live has huge implications for planetary biophysical systems – but in ways we cannot necessarily predict or understand.

Once made explicit, these decision-making processes can be opened up to greater democratic input. The political task of creating the world of the Anthropocene is

dependent on communicative processes and their associated power relationships. To a large extent these decisions are made in the domains of science, business and the private sector, outside the realm of representative democracy, what Beck (1992) refers to as 'subpolitics.' Democratizing these spaces in the interests of citizens, the deliberate shaping of both the human and natural worlds in line with the values collectively decided on by society, is a key challenge. But while many theoretical approaches stress dialogue and consensus, this can work to mask or reinforce power differentials and inequalities (Mouffe, 2005), and the role of contention and contestation in these processes may be just as important.

Communicating the environment

Although environmental risks have their manifestations in the physical environment, they are a product of social action. In that sense, risks are inseparable from their representations. What people know about environmental threats and how we think about them will condition how they respond to them (if at all). Risk discourses are therefore as important as their physical causes or effects. This is not to say the discursive is more important than the material, but that the two do not exist independently of one another. Risks are an assemblage of natural, social and technological elements linked together in complex and often unpredictable ways. Communication is fundamental to tracing these connections, through the ways in which these various actors interact and achieve representation, and the articulation of meanings associated with the environment.

Communications media are themselves embedded in larger sociotechnical structures. As well as being the principal means of circulating discourses about risks,

media are (to varying degrees) a part of the same social system which produced the risks. Much scholarship has implicated mass media as key agents in perpetuating the dominant industrial-capitalist social order. If environmental risks represent a threat to this system, it follows that, at least at a broad level, this will affect the representation of such risks in ways which downplay this threat. This is not totalizing, of course, but the point is that media are themselves in part responsible for environmental risks, through both their role as carriers of norms and ideals about social relations and their representations of specific environmental issues. Nonetheless, it could equally be argued that what progress has been made on environmental issues is also a function of media. Content studies have found a diverse array of perspectives on the environment, even in commercial mass media, with little in the way of ideological closure (though a common theme is that relatively little attention is paid to underlying causes). Digital media, of course, allow for even greater diversity and heterogeneity. It is important to avoid a mediacentric approach, seeing processes of communication as *the* major determining factor in social responses to environmental problems. What appears in media is in a dynamic relationship with broader social and historical trends. Yet media and communications systems remain important as spaces where the more concrete manifestations of these trends are played out and worked through.

Gaining a better understanding of these processes can potentially lead to better insights about how the unintended consequences of modernity can be taken into account and integrated into a broader politics of risk. The social theorists who deal with these issues often acknowledge the importance of media and communication but are light on

details and nuance, so there is scope for substantial theoretical contributions in this area. More generally, how the public understands and responds to risks is in large part a consequence of their engagement with various forms of media. Identifying how media are used by actors in environmental debates and the interactions of various discourses can help to show how ideas of risk are constructed. This also helps clear a path towards a more democratic participation by the public in matters of risk governance which would otherwise not be subject to such oversight.

It is crucial, then, to investigate the role played by media in how societies deal with self-produced threats. The competing dynamics of protecting longstanding institutional arrangements versus transitioning to a “new modernity” (Beck, 1992) based on risk will both be present to varying degrees in mediated discourses. The very fact of communicating about risks involves assumptions, whether implicit or explicit, about the relationships between science, politics, nature and everyday life. This dissertation investigates these issues through the analysis of environmental controversies and campaigns, focusing mainly on the issue of climate change – in many ways the archetypal example of a modern environmental risk – situated more broadly in the context of the Anthropocene.

Environmental organizations and advocacy groups are among the primary means by which environmental issues enter the public sphere. There is a wide spectrum of environmental groups encompassing many different modes of campaigning. The rapidly changing media landscape is having a profound influence on how campaign groups conduct their operations and reach broader publics. The growth of digital media has

meant a relative decline in the power of traditional media gatekeepers and the emergence of new sources of information accessible primarily online. Advocacy groups are amongst the most important of these new sources, particularly in the realm of risk and crises. While campaigners previously had to rely on mainstream media to get their message across (and still do to a large extent), they are much more able to reach audiences directly and spread their message through digital media. In this way they can potentially contribute to the subpolitics of risk, through the linking together and mobilization of diverse publics for the purposes of social change. As decisions over risks are increasingly made by institutions outside of the traditional democratic institutions of the nation-state, the democratic potential of more participatory media forms and the extent to which it is being realized become crucial. It is possible that the debates over modernity's consequences that were closed off to traditional democratic institutions are being opened up through public concern over risk and enabled by digital media. At the same time, mainstream media remain important through their ability to legitimize various environmental discourses and make them available to a wider public, and their attention is still courted by advocacy groups.

Dissertation overview

This dissertation examines the how climate risks are constructed by advocacy groups and their interactions with various forms of media. The principal method employed is critical discourse analysis (CDA), a form of qualitative textual analysis. CDA has a number of advantages for this study. Discourses are “a shared way of apprehending the world” and “construct meanings and relationships, helping to define

common sense and legitimate knowledge” (Dryzek, 2005, p. 9). A discourse contains set of shared principles which help to organize and make sense of the world in particular ways. CDA is suited for analyzing issues of political power as it focuses not just on the text but the social context in which it is embedded and the relationships between other discourses and power structures. Because environmental issues are not comprehensible to people in their own right and have to be given meaning through discourse, questions of power – who gets to define environmental risks, and how they are understood in relation to other social forces – are particularly salient.

Three case studies are used to explore the different ways in which humans’ relationship to the environment in the Anthropocene is being conceptualized by advocacy groups and how they are putting these ideas into practice. Each focuses on the activities of a particular advocacy group representing different environmental discourses. The three organizations are 350, a climate activist organization, The Breakthrough Institute, a think-tank, and The Nature Conservancy, an established environmental NGO. All acknowledge the untenability of the distinction between society and nature, that humans are a major force influencing the planet’s biophysical systems and thus need to more consciously or deliberately manage our environmental impacts, and yet all have very different assumptions, objectives and tactics in their advocacy. Analysis concentrates on key moments of public contention, when the activities of the organization are brought into the public realm and different discourses interact with one another. Texts analyzed include the organizations’ campaign and advocacy material along with media coverage. Key points of comparison between the cases are how the organizations construct the

boundaries between human society and the natural world, the attitude of the organizations towards dominant socio-political institutions, and how the organizations see the role of the public in addressing environmental problems and building a common future.

Chapter 4, ‘Politicizing climate change: Challenging power through fossil fuel divestment,’ focuses on 350’s campaign to encourage divestment from fossil fuel companies. 350, founded by environmental writer Bill McKibben in 2007, quickly established itself as one of the more prominent and successful climate activist organizations. The specific focus of the chapter is the ‘Fossil Free’ divestment campaign, which encourages colleges and universities to sell any investments they have in fossil fuel companies. While superficially economic in nature, the divestment movement aims for a broad societal transformation, based on confronting power and bringing a politicized discourse to public debate on climate change. The goal is to weaken the economic and political power of fossil fuel companies, as part of an effort to assert greater citizen-led democratic control over institutions currently outside the democratic process yet which have the power to profoundly shape the future of the planet.

Chapter 5, ‘Ecomodernism: The Breakthrough Institute’s theology for the Anthropocene,’ examines the activities of think-tank The Breakthrough Institute (BTI) and its founders, Michael Shellenberger and Ted Nordhaus. The BTI explicitly aims to change the way environmental problems are conceptualized and addressed through policy, advocating an approach based on innovation and technology rather than trying to limit human impact. They first came to prominence in 2004 with their highly controversial report *The Death of Environmentalism* (Shellenberger & Nordhaus, 2004),

which excoriated the environmental movement for what they saw as its failure to deal with modern environmental risks such as climate change. Keeping up their attacks on environmentalists and environmental justice advocates, the BTI and its associates also continued to develop an alternative approach to politics in the Anthropocene which they called ‘ecomodernism.’ While questioning the assumptions of environmentalism and pressing the need to take ownership of humanity’s impact on the biosphere, the ecomodernists’ faith in technology risks leaving structural social inequalities unaddressed.

Chapter 6, ‘Gardening the Anthropocene: Conservation after the end of nature’ looks at how conservation organizations address the challenge of preserving nature, in an era when nature is said to have ended. The major focus of the chapter is the largest American environmental non-profit, The Nature Conservancy (TNC). Traditionally focused on place-based conservation efforts, TNC has always utilized a non-confrontational approach based on buying up land and working with corporations and other stakeholders. The rise of the concept of the Anthropocene and the emergence of climate change as the central environmental issue have presented a dilemma for TNC, as it becomes less tenable to speak of protecting an unspoiled, pristine nature. In response, leading figures within the organization have advanced alternative approaches for conservation practice – an ‘ecosystem services’ model where the value of natural resources is quantified based on the benefits they provide to human populations, and a related intellectual movement known as ‘new conservation’ which promotes conservation explicitly for human wellbeing rather than protecting nature for its own sake. These

moves cause tensions for TNC's public advocacy and fundraising efforts, which often rely on ideas of protecting a pristine, untouched nature in order to solicit donations from the membership base.

All three organizations try to articulate a new politics for the Anthropocene which redefines humans' relationship to their impacts on the environment. The ways in which they go about this are shaped by a number of factors – their political commitments, the history and legacy of the organization and the people involved, and the need to reach a particular audience and raise money. The organizations must often negotiate a delicate balance between their political goals and strategic or financial imperatives. While climate change politics and advocacy is about the effects humans have on the physical environment, the erosion of boundaries between human and natural systems means that the entrenched social institutions and practices which give rise to these impacts are equally important. While such processes are often not subject to the direct control of democratic political institutions, they are nonetheless influenced by broader cultural currents, and it is here that advocacy groups seek a place to intervene. Analysis of the communication activities of the organizations and how their ideas are represented and contested in other media shows not only how they construct the particular issue of climate change but their relationship to societal power structures. How the organizations build their case for action involves discursive acts which define or re-define the boundaries between nature and society and what (and who) is to be included or excluded from political concern. Unless directly challenged, these new formations will reproduce existing power structures and inequalities. Shaping the future of the entire planet is a

daunting and vastly complex undertaking, and no single approach will alone be sufficient. But given the stakes, it is crucial to ensure that these decision-making processes are able to be politically contested and are democratically accountable.

Chapter 2 – Literature Review

Risk society, reflexive modernization, and the environment

The promises of enlightened modernity, the taming and control of nature and the triumph of scientific rationality, have also given rise to a host of unintended and unexpected consequences which threaten the legitimacy of modern institutions. Far from being tamed or controlled, nature, through its interaction with industrial society, is unleashing ever-more deadly catastrophes. The structures built to protect humans from nature are themselves a source of danger. Tindale (1998) argues that “while the pre-Enlightenment consciousness regarded environmental risks as natural and unavoidable, the work of God or other unknown forces, the post-Enlightenment consciousness recognizes that some of them are manufactured” (p. 56). This recognition, however, is not universal or uncontroversial, and the nature or even the existence of such socially-produced threats is often subject to much debate. Climate change is an archetypal example of a modern risk – the emission of greenhouse gases is a by-product of industrial society, of things working as they should and yet producing potentially devastating side-effects. Ulrich Beck’s risk society theory (Beck, 1992) is one of the more comprehensive and influential theoretical approaches in this area. Beck starts from the position that that there has been a shift in focus in society, from external dangers – those imposed by nature, such as natural disasters – to internal dangers – those, that arise from human society itself, and that through this recognition we are entering a ‘new modernity.’

This shift from a ‘first’ to ‘second’ modernity Beck (1992) calls *reflexive modernization*. Beck, Bonss and Lau (2003) distinguish it from the usual processes of change and upheaval which characterize the first modernity in that it not only changes social structures but calls into question the principles of modernity itself and dissolves its previously taken-for-granted premises. The premises of first modernity that they identify – including social relations contained within the nation-state, bounded individualization, exploitation and control of nature based on scientific rationality, and differentiation of societal functions – are increasingly subject to challenge. The side-effects and unintended consequences of modernity make such arrangements increasingly untenable. As Latour (2003) notes, reflexivity is not about people gaining “an increase in mastery and consciousness, but only a heightened awareness that mastery is impossible and that control over actions is now seen as a complete modernist fiction” (p. 36) due to the intractability of modernity’s unintended consequences. What this means in practice – as well as how to grasp these changes through academic inquiry – can be unclear, as the entire system of coordinates within which social change previously happened are destabilized. Beck et al. (2003) point out that “the institutionalized answers of first modern society to its self-produced problems – for example, more and better technology, more economic growth, more scientific research and more specialization – are less persuasive than they once were, although it is not at all clear what should take their place” (p. 7).

Bruno Latour’s scholarship also chronicles broad changes in the trajectory of modern social organization. His starting point is how scientific knowledge and its objects

of study in the ‘natural’ world interact with society, or the world of humans. Modernity, for Latour (1993), is characterized by two sets of practices. One is ‘translation’, which is the creation and proliferation of ‘hybrids’ of nature and society, of the human and the non-human, which are linked together in networks. Climate change is an example of a hybrid; a set of processes and impacts in the physical environment that arise from human activity. The process that characterizes modernity other is purification, which is the *separation* of nature and culture, and a refusal to acknowledge the existence of hybrids. While purification, separating the world of humans from the world of nature, is recognized and celebrated by the moderns as the reason for their success, Latour argues that this success is in fact due to the link between purification and translation, the simultaneous proliferation of nature-culture hybrids and their banishment. By examining both of these processes together and taking account of the hybrids and networks that emerge, we can see that the modern world is not a clean break from the premodern. Nature and society remain as intimately entangled as they ever were – hence Latour’s claim that “we have never been modern.” For instance, economic growth depends on the environment and resources obtained from nature, but recognizing this fact would mean slowing down the rate of environmental degradation and hence putting a brake on the economy. As long as the dual processes of entanglement between nature and society, and their official separation, are allowed to go on in parallel, the principles of industrial society will remain unchallenged. But as people become more conscious of these self-produced threats, an “unintended, unplanned and unpolitical” (Beck, 1992, p. 3) transition begins to take place and certain features of industrial society become socially

and politically problematic. As Beck (1994) puts it, “The abstraction of nature leads into industrial society. The integration of nature into society leads beyond industrial society” (p. 27).

We become able to view these previously hidden processes of translation due to a crisis of confidence in modernity arising in the late 20th century. Hybrids have proliferated to such an extent that they can no longer be ignored – whereas hybrids could previously be purified as belonging to either the social world or the natural, to be dealt with by either science or politics, new formations mean this is no longer possible. The moderns “have been victims of their own success” (Latour, 1993, p. 49), in that modern social and political systems can no longer deal with the problems they have created. An issue such as climate change manifests mainly through ‘natural’ systems such as the weather and is discoverable through science – yet it is caused by the actions of humans. Nature and culture, science and politics, are inextricably bound together, with one not reducible to the other.

It is clear, then, that Beck and Latour are covering a lot of the same ground. Both are concerned with the side-effects, the unintended consequences of modernization, and what happens when they are not able to be dealt with by the set of institutional arrangements which created them. The connection has been noted by both authors (e.g. Beck et al., 2003; Latour, 2003). Latour (2003) writes that Beck’s notion of risk is analogous to his idea of a network, a dense entanglement of “unexpected associations between heterogeneous elements” (p. 36). The notion of *externalities* is key to both theories:

Put quite simply, second modernity is first modernity plus its externalities: everything that had been externalized as irrelevant or impossible to calculate is back in – with a vengeance. This is nowhere clearer than in the ecological crisis: there is no longer any outside that can be considered as irrelevant. (Latour, 2003, p. 37)

Climate change is in many ways an archetypal example of the type of risk that characterizes the shift to reflexive modernization. It is the product of human actions and yet it did not arise out of a conscious human decision or as a result of something going wrong. The threats to humanity posed by nuclear weapons, say, or chemical or biological engineering, remain hypothetical until deliberately activated. Climate change, meanwhile, arises in most cases not as a result of a conscious decision but as a by-product of our way of life: catastrophe is almost inevitable if things simply carry on as they are. The heating of the atmosphere through burning fossil fuels is, in effect, an outcome of an economic system working as it is supposed to. It is this which makes the issue so fiercely contested. Most political and economic institutions have a vested interest in the maintenance of the socio-political status quo, and see the changes advocated as necessary for dealing with climate change as a threat to their interests. Addressing climate change will, one way or another, involve significant changes to institutions, and the value systems which underlie them, which are highly resistant to change.

Related to this, responsibility for causing the problem is difficult to pin down and subject to debate, and there is a large divide, both spatial and temporal, between causes and impacts. The institutions of modernity, then, seem ill-equipped to deal with the risks they have created. This means, following theorists such as Beck, Latour and Giddens (1994), a wide-ranging reconceptualization of social relations. It is no longer possible to

ignore the environmental externalities of modernization. Nor it is enough to address environmental problems only as they arise, as has been the case with much environmental politics. Rather, these unintended consequences must be incorporated as part of the normal process of politics; learning, as Latour (2012) puts it, to “love our monsters.” The implications of this will be explored in the following sections, with consequences for scientific knowledge, political decision-making and global affairs, amongst others.

Scientific knowledge in risk construction

As it becomes impossible to ignore the problems that are generated by industrial society, risks take on an increasingly central role in politics. Modernity and industrial society base much of their legitimacy on the exploitation, and more importantly, the control, of the natural world. Nature is conceptualized mainly as a resource for economic growth and a set of variables which could be manipulated for managing the human population. This came about due to the expansion of scientific rationality as a way of interpreting the world, and the related rise of industrial modes of production which place greater demands on natural resources. This perspective is informed by what Dryzek (2005) calls the ‘promethean discourse,’ which sees the environment solely as a store of matter and energy to be used in the pursuit of material progress and economic expansion. Prometheanism, as Dryzek notes, floats free from any sense of environmental constraints, with the economy and environment seen as completely separate from one another.

Scientific knowledge is instrumental to industrial society. The risks generated as a result of technoscientific advances and subsequent shift towards reflexivity “extends scientific skepticism to the inherent foundations and external consequences of science

itself. In that way both its *claim to truth* and *claim to enlightenment* are *demystified*” (Beck, 1992, p. 155; emphasis in original). So while there have always been debates over science in the public realm, Beck’s contention is that under the conditions of the first modernization these would have been resolved scientifically, without calling into question the principles of science itself. Some critiques of Beck (e.g. Harding, 2008; Latour, 2003) have argued that his break between first and second modernities is a little too clean, and that many of the practices he ascribes to reflexive modernization have always been present. At any rate, under reflexive modernization, the foundations of science and by extension the broader project of modernity are increasingly challenged. Previously taken-for-granted presuppositions about what counted as rational are politicized, and notions of proof and responsibility are increasingly complicated (Demeritt, 2006). Additional scientific information is no longer enough to resolve arguments, as more information simply uncovers more risks and side-effects; and a pluralization of rationalities and valid claims to knowledge alters the boundaries between scientific and lay knowledge (Beck et al., 2003). This points to a greater role for public debate in defining the role and limits of scientific knowledge.

A consequence of the demystification of scientific knowledge claims is that they are also de-monopolized: scientists lose their exclusive right to make claims about the world. As Beck (1992, p. 156) puts it, “science becomes *more and more necessary*, but at the same time, *less and less sufficient*, for the socially binding definition of truth” (emphasis in original). A flood of differentiated, conditional and uncertain knowledge claims results in a “*hyper-complexity* of hypothetical knowledge” and

systematically produced uncertainty [which] spreads to external relations, and conversely turns the target groups and appliers of scientific results in politics, business and the public into *active coproducers* in the social process of knowledge definition. The ‘objects’ of scientization also become *subjects* of it, in the sense that they can and must actively manipulate the heterogeneous supply of scientific interpretations. (Beck, 1992, p. 157; emphasis in original)

The production and application of scientific results are able to be appropriated by various groups in society. The increased differentiation of knowledge means not only a choice between competing and contradictory claims, but the ability to play such claims against each other in public. The selection criteria for various competing claims include “compatibility of basic political views, the interests of sponsors, the anticipation of political implications; in short, *political acceptance*” (Beck, 1992, p. 168). This, as Beck notes, is a two-edged sword: while it presents the opportunity to free social practice from the constraints of science, it can also mean that socially prevailing ideologies can adopt scientific claims which support their position, potentially leading to a “feudalization of scientific knowledge practice through economic and political interests” (p. 157).

This fracturing of scientific claims according to ideological position becomes critical when a society is faced with the type of internal risk which threatens its very survival. Such scenarios are a threat to the existing socio-political order of a society, as there are no societal institutions which can adequately prepare for or guarantee order during the worst possible scenario. The only remaining possibility is to deny that the danger exists, and there are many institutions which are specialized in doing just that (Beck, 1999). The justification for this denial is also, of course, found in science: “ideologies and prejudices, now scientifically armed, are able to defend themselves anew

against science. They take recourse to science itself in order to reject its claims” (Beck, 1992, p. 169). The type of existential crisis which paves the way for the increased reflexivity and pluralism in scientific claims-making is therefore liable to be ignored or contested as a result, because acknowledging its existence also acknowledges the inadequacy of the socio-political status quo. As Beck (1999) remarks, “political stability in risk societies is the stability of not thinking about things” (p. 53).

Examples of this abound in debates over climate change. Gelbspan (2004) and McCright and Dunlap (2000; 2003) chart how the anti-environmental movement mobilized after 1990 to “construct the non-problematicity of global warming” (McCright & Dunlap, 2003, p. 348). Conservative think-tanks provided a platform for a handful of skeptical scientists to disseminate their views through a variety of publication channels, including the media. At the same time, a massive public relations and lobbying campaign was mounted by fossil fuel companies. Wider cultural factors such as the Republican takeover of Congress in 1994 helped to downplay the importance of climate change in the public arena. Science is still mainly used as a basis for contestation of the issue, with skeptics arguing that policy decisions must be based on ‘sound science’ and dismissing the findings of mainstream science as ‘junk science’ (Demeritt, 2006; Jacques, Dunlap, & Freeman, 2008). Lahsen (2007) found that “deconstructions of science in political arenas ... tend to be partial and ‘lop-sided,’ as actors typically deconstruct the scientific arguments of their opponents while resorting to objectivist language to promote their own preferred scientific interpretations and political agendas” (p. 174).

Risk politics

A key feature of risk society, then, is the importance of public processes of deliberation and contestation. Climate change and other risky side-effects of modernity exist in a “perpetual state of virtuality” (Beck, 2006, p. 332), always something to be anticipated, and generally invisible for most people except in discourse. Risks are therefore constructed, and how they are constructed and by whom becomes a key site of power struggle in society; what Beck (2009) calls “relations of definition.” The public task of science is to in fact enable controversy and hence democracy:

Debate begins based on the recognition that science offers a multitude of options; that there are controversies among scientists as well as within the public; and that the problem is how to resolve all these differences democratically. (Beck et al., 2003, p. 21).

Public intervention in science becomes more influential, such that “the public sphere ... would be charged as a second centre of ‘discursive checking’ of scientific laboratory results in the crossfire of opinions” (Beck, 1992, p. 119). Rather than take science at its word, there is an erosion of the boundaries between expert and lay knowledge and science is subjected to the force of public opinion, which helps to separate the good (or worthwhile for the sake of society) science from the bad: “only a strong competent public debate ‘armed’ with scientific arguments is capable of separating the scientific wheat from the chaff” (Beck, 1992, p. 119). This is clearly a problematic notion. If science is open to contestation from interest groups, on what basis can it inform public policy? How can the lay public be expected to arbitrate between competing ‘scientific’ viewpoints?

The perspective on threats to modernity generated from its own institutions is did not emerge from the environmental movement. In *The Public and its Problems*, John Dewey (1927) argued that the public forms not out of concern over actions but their consequences. More specifically, the indirect and unintended consequences of private actions, when they affect others not directly involved in the initial actions, become public. Publics, and hence politics, are based around the recognition and regulation of these consequences: “The public consists of all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for” (Dewey, 1927, p. 16). As Latour (2011) points out, Dewey “invented reflexive modernization before the term was coined” (p. 11).

Dewey also points to the complexities and interrelations of industrial society, operating at a global scale, which impinge in unknown and often unexpected ways on the everyday lives of citizens:

The local face-to-face community has been invaded by forces so vast, so remote in initiation, so far-reaching in scope and so complexly indirect in operation, that they are, from the standpoint of the members of local social units, unknown. ... An inchoate public is capable of organization only when indirect consequences are perceived, and when it is possible to project agencies which order their occurrence. At present, many consequences are felt rather than perceived; they are suffered, but they cannot said to be known, for they are not, by those who suffer them, referred to by their origins. (Dewey, 1927, p. 131)

The process of challenging the foundations of industrial society through risk depends on a widespread and shared knowledge of socially-produced risks. Environmental risks in particular, though they do have material effects, are often not immediately apparent to people in their everyday lives – either they take place in far-off locations (e.g. destruction

of rainforests), happen in ways invisible to the naked eye (e.g. changes in atmospheric chemistry), or involve threats likely to manifest themselves only in the future (e.g. sea-level rise).

When the institutions of modernity are unable to deal with the problems they themselves have created, this leads to a destabilization and transformation of the social order. For Beck (1994), the nature of distributional conflicts in politics shifts from conflicts over ‘goods’ (jobs, income, social security) to distributional conflicts over ‘bads’, how the risks accompanying goods production can best be handled, prevented, controlled, and legitimized. This is also accompanied by a process of individualization (Giddens, 1994; Beck, 1994), which is conceptualised not in terms of atomization or isolation but a ‘disembedding’ of individuals from communities such that they have to take responsibility for aspects of their own lives, rather than through their pre-determined role in a traditional social group. At the same time, this creates new interdependences, which can extend globally, centered on the risks people have in common. For instance, the global implications of everyday life choices become more salient, for example as things like individual purchase decisions affect the life of someone far away or contribute to global ecological damage (Giddens, 1994).

As the risks created by modern institutions come to the forefront of politics, the domain of politics itself shifts. Existing political structures and power elites remain intact, but their political monopoly is undermined and replaced by what Beck calls “subpolitics” (Beck, 1994). Decisions about risks are made in domains such as science, business and the private sector. While under industrial capitalism these had been protected from

politics, their generation of negative externalities can no longer be ignored under reflexive modernization, and so they are increasingly opened up to political contestation. Furthermore, many risks are global in nature, in the sense that they do not respect national borders and have the potential to affect people in many different parts of the world. Climate change, nuclear accidents, risks associated with genetic modification and financial crises are all examples of socially-produced risks which are global in their effects. As people attend to risks, they begin to become aware of their place in a larger threatened world, leading to an ‘unintended’ or ‘enforced’ cosmopolitanism: “Global risks tear down national boundaries and jumble together the native with the foreign. The distant other is becoming the inclusive other – not through mobility but through risk” (Beck, 2006, p. 331).

Addressing environmental risks, then, requires a reconceptualization of how science, politics, nature, and everyday life relate to one another. For a variety of theorists, this involves expanding processes of debate, dialogue and deliberation such that debates over science and risk are moved out of the closed world of scientific institutions and into the public realm. Williams and Matheny (1995) propose a ‘dialogic model’ where a “politically-relevant truth” emerges from open dialog between experts, policymakers and communities. Science still provides a model for the structuring of substantively rational human communities, though it is seen as a social process not immune from values and biases which can be taken into consideration. Similarly, Latour’s “parliament of things” is a space where all relevant parties in a given risk crisis, representing both the human and non-human worlds, come together in recognition of their entanglement. Latour

(2011) argues that two meanings of the word ‘representation’ have merged – the scientific representation of nature, and the political representation of people. In the controversy over climate change, for instance,

some of these spokespersons represent the high atmosphere, others the lobbies of oil and gas, still others nongovernmental organizations, still others represent, in the classical sense, their electors. The sharp difference that seemed so important between those who represented things and those who represented people has simply vanished. What counts is that all those spokespersons are in the same room, engaged in the same collective experiment, talking at once about imbroglios of people and things. It does not mean that everything is political, but that a new politics certainly has to be devised. (Latour, 2011, p. 4)

The politics of the Anthropocene

The subpolitical processes arising from industrial modernity mean that the direction of society is being shaped by forces – economic, scientific, technological – over which the general citizenry has no control. The environmental movement can be seen in part as an attempt to remedy this; to give citizens a voice in decisions which affect their lives and futures. This means recognizing the erosion of the boundary between nature and society, and that humans have an enormous impact on natural processes and systems. Instead of leaving humanity’s relationship with and impact on nature in the subpolitical processes of unelected institutions acting largely in their own interests, reflexive modernization and related approaches seek to take conscious control of these processes in the interests of citizens; a deliberate shaping of both the human and natural worlds in line with the values collectively decided on by society. As Stewart Brand (1968) famously stated in the inaugural edition of the Whole Earth Catalogue, “We are as gods and might as well get good at it.”

The idea that the physical environment of the planet is being shaped in large part by humans is encapsulated in the concept of the Anthropocene. Popularized by atmospheric chemist Paul Crutzen and biologist Eugene Stoermer in the early 2000s, the Anthropocene (meaning ‘age of humans’) was proposed as a name for a new geological epoch “to emphasize the central role of mankind in geology and ecology” (Crutzen & Stoermer, 2000). The Anthropocene would replace the Holocene, the current epoch in which human civilization has developed dating to the end of the last ice age, ten to twelve thousand years ago. Crutzen and Stoermer cited a range of evidence showing the extent of human impact on various biological and physical systems, including land use change, species extinction, the nitrogen cycle, and the ozone hole, as well as the effects of climate change caused by greenhouse gas emissions. They proposed a start date for the Anthropocene of the late 18th century, due to the global effects of humankind’s impact becoming visible around this time, although they acknowledged the exact starting point was somewhat arbitrary. The term ‘Anthropocene’ has become increasingly prevalent in scientific and popular discourse as a way of framing and understanding human impact on the environment.

Scholars from different disciplines have argued for different starting points. Some anthropologists and archaeologists have argued for a “long Anthropocene” dated to the beginning of human expansion across the Earth – and particularly the development of agriculture when human impact on a large scale first became evident (Balter, 2013). The International Commission on Stratigraphy (ICS), a body of geologists which decides on whether proposed names of geological timespans should be formalized, set up a working

group to investigate whether the Anthropocene should be officially recognized as part of Earth's geologic history. In deciding on division between epochs, the ICS requires geological evidence, a so-called "golden spike" which shows up in permanent rock layers – whereas the biological and atmospheric changes observed by biologists and climate scientists, while having a huge impact on earth, may be less evident in the eventual geological record. In August 2016, the Anthropocene working group of the ICS proposed the mid-20th century as the most likely candidate for a golden spike owing to the worldwide dispersion of plutonium from nuclear tests leaving a permanent signature in the geological record (Voosen, 2016).

While there are debates amongst geologists about the validity of the concept (Scourse, 2016) or its exact starting point, the Anthropocene is also a discourse or system of thought. As Boes and Marshall (2014) argue, "regardless of when the Anthropocene is agreed to have begun, what is different now is that it is being recognized or named as such" (p. 66). Schlosberg (2013) poses the key questions for this era:

How do human beings manage the new world we have constructed, or deconstructed? How do we understand and respond to those impacts and react to, redesign, and take some sort of conscious control over systems we now acknowledge we already run? (p. 15).

Crist (2007) argues that the very use of the term "works to entrench its reality and consequences" (p. 52). She is critical of the concept, contending that

enunciating the Anthropocene further normalizes human interference with, and use of, every natural system on the planet. Masquerading as realism, the declaration of the Anthropocene contributes to fixing the course of history in the specific direction that the concept circumscribes. (p. 53)

In one sense, then, the Anthropocene is compatible with a technocratic or resource-managerialist approach (see Dryzek, 2005), where all aspects of nature can be described, predicted and controlled through scientific rationality. The technological solutions and global governance regimes which arise from this perspective lend themselves to an expansion of modernity's project to the entire planetary biosphere (Dibley, 2012). As Luke (1997) points out, though, the compatibility of this outlook with prevailing socio-political regimes has meant that it has been successful in protecting parts of the biosphere from degradation and exploitation.

Others, however, note the ambivalence and ambiguity in the notion of the Anthropocene. Lövbrand, Strippel and Wiman (2009) analyze how the concept "both challenges and reproduces the Enlightenment promise of human self-realization, autonomy and control" (p. 8). Viewing the earth as an interconnected system and recognizing the importance of humans within it emphasizes complexity and uncertainty, and places limits on the ability of scientific knowledge to predict, let alone control, our environmental future. This perspective, through its incorporation of human impacts, draws attention to the unintended consequences of modernization and reflexively examines the institutions of modernity. Control means not just control over non-human nature but over the institutions and technology which now form a crucial part of the earth system. This is closer to Brand's original intention with his 'we are as gods' statement, which counterposed the increasing harms being done by government, big business, education and organized religion with a developing "realm of intimate, personal power ... power of the individual to conduct his own education, find his own inspiration, shape his

own environment” (Brand, 1968, p. 2). Reflexivity and individualization (Beck, 1994; Giddens, 1994) here are key to designing a more socially and ecologically just society. Similarly, Schlosberg (2013) sees hope in a localized, embodied “sustainable materialism” that resists participation in “the flows of power that reproduce practices that damage ecosystems or contribute to climate change” (p. 16). Latour (2010) uses the term “compositionism,” referring to the task of deliberately putting together or composing the world in which we wish to live. He too argues that ‘the Anthropocene’ is a recognition of the untenability of the barrier between nature and politics. We can no longer seek to return to a pristine nature, to put things back as they were before human intervention – as Schlosberg (2013) puts it, “it is no longer possible to look back to history to guide new practices of management or restoration. In creating the environment of the future, the human-induced anthropocene has made the past irrelevant” (p. 15). Nor, however, can we continue on as before, relying on science and innovation to manage nature for us.

Of course, how all of this plays out at the level of actual political action is another matter. In spite of Beck’s claim that we have transitioned to a new modernity, or that such a transition is unavoidable, this assumption is not shared by many of the actors involved in political debates. As Dryzek (2005) chronicles, there are a multitude of differing approaches to the relationship between humans and their environment, both within the environmental movement and outside it. The perspective advanced by Beck and Latour has been critiqued on a number of grounds, principally in that it is too universalizing and Euro-centric, ignoring cultural differences and the perspectives of minorities (Harding, 2008). Harding critiques Latour for intentionally ignoring the

contributions of social movements and identity politics, arguing that his desire to locate a common ground and escape from a multiplicity of beliefs and interest groups blinds him to the importance of differences in advancing the growth of knowledge and democratic politics. “The big news Latour’s account brings,” she argues,

is not that ‘we’ have never been modern, but that bourgeois, Western men who get to construct philosophies of science and political philosophies have never achieved the status to which they aspired. (Harding, 2008, p. 45)

Similarly, Dryzek (2005) notes that risks are not as ‘democratic’ as Beck claims – although climate change affects the rich as well as the poor, risks are still distributed to a large extent along class lines.

Dryzek also points out that the open and participatory decision-making implied by reflexive modernization is more suited to corporatist political systems (such as Germany) rather than those, such as the United States, with a stronger tendency towards economic liberalism. More broadly, reflexive modernization presumes a non-adversarial approach to politics, in which, as Mouffe (2005) summarizes,

conflicts can be pacified thanks to the ‘opening up’ of a variety of public spheres where, through dialogue, people with very different interests will make decisions about the variety of issues which affect them and develop a relation of mutual tolerance allowing them to live together. (Mouffe, 2005, p. 48)

She argues that this places too little emphasis on power relations, as the struggles to democratize the institutions of modernity will involve doing battle with entrenched interests who are not likely to give up their power. Because the non-adversarial approach to politics advocated by Beck and Giddens is unlikely to transform existing power

relations, she contends that they remain “squarely within the traditional parameters of liberal politics” (Mouffe, 2005, p. 52). This has echoes of Fraser’s (1992) critique of the model of rational deliberation found in Habermas’ theory of the public sphere, in which certain groups are systematically excluded and “social inequalities can infect deliberation, even in the absence of any formal exclusions” (p. 119). Whiteside (2012) makes a similar critique of Latour’s proposals for a ‘parliament of things’ where political and scientific representation are merged, arguing that it looks very similar to ordinary pluralist politics.

Added to this are the trans-national and trans-cultural dimensions of global climate change, as the issues manifests itself differently in various parts of the world. Boykoff and Rajan (2007) note that the cultural and historical framework in which countries relate to the environment is a powerful driver of public opinion and policy towards climate change. They argue that Britain’s constrained geography and powerful cultural institutions explains at least in part that country’s different response to climate change than the United States, which has a stronger emphasis on economic freedom and personal consumption. Non-Western countries have a very different experience of modernity than those in the West. Arsel (2005), writing about environmentalism in Turkey, questions whether the processes of a second (reflexive) modernization are relevant in a country where the first (industrial) modernization is yet incomplete. And more broadly, within cultures there can exist a multitude of overlapping temporalities, a complex articulation of various interconnected strands of tradition and modernity (Kraidy, 2005; García-Canclini, 1995). While for Schlosberg (2013) we cannot look to

the past as a guide for creating the environment of the future, the past nonetheless remains relevant in how human cultures relate to the environment, cultures which are themselves shaped by their physical place. And where Shellenberger and Nordhaus (2011), wholeheartedly embracing Latour's philosophy, see a commitment to modernization as a salvation from ecological problems, they ignore the differing meanings and trajectories of modernization in non-Western contexts.

Climate change, discourse and media

Risks such as climate change, as discussed above, are socially constructed, unknowable except when given meaning through discourse. Knowledge about risks is as much the outcome of politics as it is science, with the 'reality' of risk able to be "dramatized or minimized, transformed or simply denied" according to prevailing norms and the outcomes of contestation amongst competing interest groups (Beck, 2009, p. 30). A number of different authors have identified and categorized common discourses used in environmental politics (e.g. Dryzek, 2005; Luke, 1997; Hajer, 1995; Bäckstrand and Lövbrand, 2007).

Risks are outcome of complex processes of interaction between institutions, expertise, citizens, technologies and the 'non-human' or natural world. To a large extent, these relationships depend on complex negotiations of trust between various actors. In the risk society, as Giddens (1994) points out, in contrast to enlightenment thinking, risk moves from being a precise, calculable phenomenon to an uncertain array of scenarios, whose plausibility is connected to how many people are convinced by them and take action on that basis. Trust in experts is based purely on the assumption of technical

competence in a given field, and can be withdrawn at a moment's notice if assumptions about the value of that expertise were to change. Trust in "abstract systems is bound up with collective lifestyle patterns, themselves subject to change ... There is a fundamental sense in which the whole institutional apparatus of modernity ... depends on potentially volatile mechanisms of trust" (Giddens, 1994, p. 90). Where individuals 'invest' their trust can have deep subversive impacts on the core institutions of society.

So the extent to which citizens take environmental risks seriously depends on their level of trust in particular experts, and also in particular media. Humphreys and Thompson (2014) found that news media coverage of environmental disasters works to reaffirm viewers' trust in experts while shielding institutions from systemic critiques. As Williams and Delli Carpini (2011) argue, information about political issues, including environmental risks, comes as much from 'entertainment' media as it does from news. Fictional media are a source of knowledge not only about the 'facts' of risks, but deeper 'truths' about social relations. They argue that to improve public debate on such issues, all media sources need to in some ways take responsibility for politically-relevant information they disseminate, although the norms by which this is implemented will vary by source and genre. Similarly, Silverstone (2006) argues that the playfulness of much mediated culture complicates the relationship between factual and fictional. While trust is a crucial component of mediation, it is often about the expectations of the medium or genre, not the factuality of the story. He argues that

We cannot but trust in the media, for the media, despite their manifest weaknesses, have to be trusted for social life to continue. But such trust cannot be blind: it has to be sceptical, it has to be informed; it has to be

part of the responsibility that is taken in everyday life by audiences: a demand for accountability, but also a demand for respect. (Silverstone, 2006, p. 127)

Trust, for Silverstone, needs to be conditional and critical, which depends on active engagement and a relatively high degree of media literacy. Rather than appealing to dubious information hierarchies, we need to develop a full and sophisticated understanding of the truth claims made in various media (Williams & Delli Carpini, 2011). As Williams and Delli Carpini point out, though, media literacy can always only be part of the answer, especially for complex scientific and technical issues such as environmental risks as most people have limited time and knowledge to make informed judgments. The role of media professionals then becomes crucial, although any changes will be driven by shifts in the expectations of audiences.

Media in the risk society

Communications media are a key space where risk controversies can be defined and debated; they are, as Beck (2009) puts it, the “political site” of risk society. Beck’s own work tends to undertheorize the role of the media. As discussed below, while he grants them considerable importance, arguing “that we must attach major significance to media staging and acknowledge the potential political explosiveness of the media” (Beck, 2010, p. 261), their complexities tend to be downplayed (Anderson, 2006; 2009). And this is crucial, as complexity in the mediated realm is only increasing through processes such as fragmentation of media platforms and outlets, increasing globalization of content, and the proliferation of social media and increasing citizen participation.

For Silverstone (2006), the media represent the only viable public space available to us in a world of global politics and interconnection. He argues that “the world and its players appear in the media, and for most of us that is the only place they do appear. Appearance itself becomes, in both sense of the word, the world” (p. 30). He calls this space the ‘mediapolis,’ the “mediated public space where contemporary political life increasingly finds its place nationally and globally, and where the materiality of the world is constructed through (principally) electronically communicated public speech and action” (p. 31). He acknowledges that viewers of different media see different worlds, that it is a space fractured by cultural difference and the absence of communication, but what is significant is that almost everyone sees and constructs the world through the media, and that “it is through the mediapolis that public and political life increasingly comes to emerge at all levels of the body politics (or not)” (p. 31). This mediated reality does not replace the world of lived experience, but is intertwined and constantly engaged with it. The media are *environmental*, in the sense of being tightly and dialectically intertwined with the everyday. From this perspective, the mediated environment is as important for dealing with risks as the physical environment. Silverstone even argues that “pollution” of this media environment is as threatening to humanity as pollution of the natural environment: “Securing the future of the physical environment will be of limited value unless the symbolic one is equally secured” (p. 177).

Silverstone (2006) is unashamedly mediacentric in his theorization (“If this is media-centrism, then so be it. It is time to grasp the nettle” (p. 162)), arguing that almost all aspects of life that could once be conducted in unmediated or private contexts are no

longer free to be so. Nonetheless, saying that everything is dependent on the media, however careful Silverstone might be in depicting them as contested and non-monolithic, can obscure the material and symbolic forces which shape communication processes (Kraidy, 2005). As Anderson (2006) points out, media representations of risks are the product of complex sociocultural processes from both inside and outside media institutions, and so understanding the communication of risk requires that attention be paid to such processes.

The media, for Beck, are the where risks are *staged*; they are not only the means of transmitting information to the public but where politics happens, where risks are defined and contested: “the political site of world risk society is not the street but *television*, the Internet – in short, the old and the new media” (Beck, 2009, p. 98). While Beck has given progressively more attention to media as integral to the processes of risk society, his treatment of them is not especially nuanced (although given that most of his writing is at the level of broad social theory this is not entirely surprising). The ‘reality’ of risks, for Beck, is constructed through a process of contestation in the media. He argues that a constructivist perspective is needed in tandem with the realist/scientific perspective. The world risk society rests not only on scientifically-diagnosed problems, but ‘transnational discourse coalitions’ (Beck, 2009, p. 86), made up of NGOs, government agencies, international agreements, industries and scientists, which assert within the public space the issues of the global environmental agenda. Real risks are thus socially defined by such actors, who must defend their position against counter-coalitions who challenge their monopoly over scientific knowledge.

The metaphor of staging, while emphasizing the constructedness of risks in the media, also implies a single ‘performance’ and audience. While there are broad similarities in the ways news organizations cover issues such as climate change (Eide & Kunelius, 2011; Cottle, 2009), the increasing proliferation of channels and fragmentation of audiences means there are a multiplicity of often incompatible ‘stagings’. McCright (2011) argues that the polarization of political elites and increasing balkanization of the news media along partisan lines lead to greater ideological divisions, rather than democratic deliberation. Beck also tends to conflate processes of mediation and representation – the technological means by which the issue is transmitted and received, and the ways in which it is portrayed in that medium – and treats different media as “interchangeable means of propagation” (Pinchevski and Liebes, 2010, p. 282). Given the multiplicity of channels available, the different modalities of various forms of media technology can have significant consequences for how risks are articulated and performed.

Cultural symbols therefore acquire key political significance; the question, as Beck notes, is who defines or invents these symbols and how? Risks only exist in symbolic form: “Risks are always events that are threatening. Without techniques of visualization, without symbolic forms, without mass media, etc., risks are nothing at all” (Beck, 2006, p. 332). It matters little whether or not the ‘objective’ danger to human life is lower than it has been in the past, that life expectancies are higher than at any point in history. The point is that the *anticipation* of disasters and destruction will itself produce a “compulsion to act” (p. 332) and shape social relations in a certain way.

There is an assumption in Beck's writing that the turn to a risk society driven by an increased awareness of socially-produced threats will lead to mediated messages which undermine the traditional economic-industrial base of society. In this aspect of Beck's theory, the media are conceptualized as mostly playing an agenda-setting role, drawing attention to environmental issues which results in increased salience of these issues for members of the audience. At one level it is hard to argue with this – in the case of environmental risks, for example, the rise in environmental concern and the emergence of alternative forms of political engagement across the world do appear to support Beck's claims. However, as Borne (2009) notes, Beck's proposal that an increase in environmentally-aware behavior is a result of a reflexive awareness on the part of the public relies on an information-deficit model of knowledge transfer. This model has been heavily criticized on a number of grounds, including that it does not take into account complex cognitive and social processes, or structural and institutional constraints that may affect people's actions. Evidence from both quantitative and qualitative studies suggests that attitudes towards science and environmental actions arise out of a multitude of complex individual and cultural factors (e.g. Lorenzoni, Nicholson-Cole & Whitmarsh, 2007; Nisbet & Scheufele, 2009; Olausson, 2011; Potter & Oster, 2008). Borne's findings suggest that people hold contradictory attitudes towards environmental protection, aware of global issues but thinking mainly in terms of their own life-worlds and the risks that exist within them.

Other studies have made attempts to theoretically and empirically delineate the role of media in the construction of risks and, more broadly, the interplay between

environmental issues and communication flows. A nineteen-country study of news coverage of international climate change negotiations found certain commonalities across countries. Summing up the findings, Eide and Kunelius (2011) note that coverage had two parallel features. For the most part, the issue was ‘domesticated’ or made familiar to local audiences in very different ways depending on national history and traditions and well as current political and economic interests. News on climate summits was strongly dominated by national political actors, with nation-states seen as the ‘natural’ units for the negotiations and the dominant discourse one of “nationally-based realism” (p. 41). However, there was also a normative dimension to the coverage, with journalists from different parts of the world treating the event as exceptional and coming together in an “advocacy of hope moment” (p. 41) which transcended the nationally-based focus but was also limited by it. They argue the climate summits create a “momentary global public sphere” (p. 16) which is limited in its political effects, supporting Beck’s (2009) contention that global risk communities exist primarily in a particular historical moment, and suggest that while journalism has some autonomy in the transnational field it is also to a large extent dependent on other powerful actors.

Cottle (2009), drawing from Beck, argues that global crises are endemic to the contemporary global world and are enacted, or ‘staged’ in that same world through news media. He writes, for instance, that climate change was, from 2007, staged as a “constructed global spectacle” (p. 507) of dramatic and spectacularized imagery and icons of globality. The use of such imagery means that “the abstract science of climate change is rendered culturally meaningful and environmentally consequential;

geographically remote spaces become literally perceptible, ‘knowable,’ places of possible concern” (Cottle, 2009, p. 508). A related study by Lester and Cottle (2009) focused on the imagery of climate change in television news in a variety of countries. They found that while images of globality were presented, they were brought back within the boundaries of the nation-state. Both studies find that while there is the potential for a cosmopolitanization, global issues are often refracted through the lens of the national. No singular logic drives coverage, but there is rather a complex interplay of global and local forces. The “relations of definition” (Beck, 2009) which shape the representation and visualization of global risks can work to either enhance or undermine the potential of the media to foster ecological citizenship.

These relationships are also illustrated through the communication activities of NGOs and campaign groups. Princen and Finger (1994) argue that the shift from national to global environmental concern was reflected in the rise to dominance of transnational NGOs and corresponded to a more general emergence of a global civil society in the 1980s. Many such groups operate in different countries around the world, with varying degrees of local autonomy (Doyle, 2009). Local and national concerns are a major factor in most awareness-raising activities. Transnational campaigns can efficiently reach large numbers of people, but may not resonate as strongly. Adapting a message to a particular national or local context, while potentially increasing its salience, may blunt its impact somewhat as NGOs try to strike a balance between perceived environmental needs and the interests of particular publics, abandoning a coherent philosophical approach in favor of increased visibility (Heinz, Cheng, & Inzuka, 2007). It is not simply that

environmental discourse is localized in each country, but that elements of both global and local discourses are evident, such that “varying approaches to environmental activism and protection are transported, sometimes distorted, and more often offered in seemingly unproblematic parallel existence” (p. 32).

How publics are constituted in such contexts becomes increasingly complex, as issues of global concern are brought down to local levels, and movements and campaigns cross traditional political boundaries. As Cottle (2011) argues,

if the notion of a bounded national public sphere becomes increasingly difficult to sustain in today’s digital and permeable communications environment, this becomes even more improbable if simply scaled-up to the global level and conceptualized as a universal ‘global public sphere.’ (p. 35)

Further, Fraser (2007) notes that the transnational level has no formal citizenship status or means of influencing corresponding levels of governance. She questions the efficacy of public opinion when it is not addressed to “a sovereign state capable in principle of regulating its own territory and solving its citizens’ problems in the public interest” (p. 15). Nonetheless, as issues of political concern cannot be resolved by institutions at a national level, new formations will inevitably emerge, and can become “constituted normatively and culturally if not always institutionally and administratively” (Cottle, 2011, p. 36). Subpolitical processes in the Anthropocene extend the influence of humans over what was previously considered the natural world and bring non-human actors under political concern. These often do not map onto existing national political formations, encompassing interactions which affect the entire world or play out within specific physical geographies. Old structures remain influential, but the politics of climate change

in the Anthropocene requires a more expansive view of how environmental impacts are constituted and the means through which they can be influenced.

Studying these phenomena therefore requires a wariness of “methodological nationalism” (Beck, 2006), and a commitment to tracing the connections that exist between various actors and discourses. While national institutions and cultures still have important effects, flows of money, media and environmental impacts can transcend national borders, destabilizing existing arrangements and leading to

a game in which boundaries, basic rules and basic distinctions are renegotiated – not only those between the national and the international spheres, but also those between global business and the state, transnational civil society movements, supra-national organizations and national governments and societies. (Beck, 2006, p. 342)

The case studies in this dissertation examine the ways in which non-governmental organizations are attempting to reconstitute politics and the new spheres of action in which they seek to gain influence, and how they conceptualize the role of the public in determining the direction of human influence over planetary systems.

Chapter 3 – Methods and case studies

Apprehending the power dynamics and democratic implications of political responses to the Anthropocene requires a contextually grounded approach which examines the relationships between discursive formations of climate change and broader cultural and political dynamics. Three case studies are analyzed in detail, to examine how particular organizations, with differing political commitments and modes of operation, are attempting to remake climate politics through their advocacy efforts, and their impact on broader public discourse. The Fossil Free campaign, organized by climate activist organization 350, deploys a social justice-centered approach and activist techniques to intervene in the economic realm, through persuading large investors to sell their stocks of fossil fuel companies. The Breakthrough Institute, a progressive think-tank, operates mainly at a policy and elite-focused level, promoting an agenda of ‘ecomodernism’ focused on innovation, technology and growth. The Nature Conservancy, one of the oldest and largest environmental organizations, emphasizes market-oriented ecosystem services approaches to nature conservation, while insisting that pristine nature no longer exists in the Anthropocene. The methodological approach used is critical discourse analysis, which links the analysis of texts to their social context and relationship to power structures. This chapter gives an overview of critical discourse analysis and its suitability for studying the dynamics of late modernity and environmental issues in particular. It then introduces the three case studies in more detail, and outlines the research design, analytic plan, and primary materials.

Critical discourse analysis

The primary method employed in this dissertation is critical discourse analysis (CDA), a form of qualitative textual analysis. The discourse analytic tradition is particularly suited to studying environmental problems and there is a large amount of scholarship in this area (e.g. Hajer, 1995; Dryzek, 2005; Luke, 1997; Alexander, 2009; Pettenger, 2007). One characteristic of late modern social life is plurality and fragmentation. As Chouliaraki and Fairclough (1999) point out, this is to a large extent a question of language. A discourse is a “shared way of apprehending the world” (Dryzek, 2005, p. 9), which is based in a particular use of language based on a particular set of common definitions, judgments, assumptions, and contentions. Chouliaraki and Fairclough (1999) argue that the crucial insight in Habermas’ analysis of the public sphere was that “a public sphere is constituted as a particular way of using language in public, and the proliferation of public spheres is a proliferation of ways of using language in public” (p. 5). This presents a problem for democracy and governance of societies; as if everyone is using their own language there is little scope for identification of common interests and effective citizen intervention into politics.

This is especially the case under conditions of reflexive modernization, where traditional democratic structures are being superseded by other forms of power. As noted above, the tendency towards subpolitics leads to a “decoupling of politics from government” (Beck, 2009, p. 95) where decisions about social organization are increasingly made outside the political institutions of the nation-state, through scientific research, transnational corporations and non-governmental organizations. Critical

discourse analysis is crucial here in at least two ways. Firstly, in finding effective forms of dialogue across difference, and secondly, in bringing into democratic control aspects of the social use of language which are currently outside it (Chouliaraki and Fairclough, 1999). As Beck (1994) points out, overcoming the paralysis that results from subpoliticization requires the formation of “support networks crossing the boundaries of systems and institutions, which must be personally connected and preserved” (p. 44). It is only through these connections that power can be formed or opposed.

Analysis of the discursive strategies of social groups can help to elucidate the assumptions and connections to power structures which inform their actions. It can also highlight areas of commonality with other discourses, contributing to the opening of a space for dialogue between groups, a voicing and expression of difference without suppression of identity (Chouliaraki and Fairclough, 1999). Where subpolitics takes the democracy out of the political process, discourse analysis, with its broader orientation towards questions of power and social structure, can make a contribution towards the reclamation of politics by citizens. Berglez and Olausson (2013) point out that while the depoliticization of climate change in public debate is well-theorized, there is “a need for discourse analyses that are able to empirically explore the discursive elements that function as post-political building blocks” (p. 55). This type of interpretive scholarship on climate change is necessary to allow “alternative questions, neglected issues, marginalized perspectives and different possibilities” (Blue, 2016, p. 68) to gain traction in public deliberation.

A principal advantage of critical discourse analysis as a method is its orientation towards social context. The object of study is not only the linguistic or semantic features of the text, but the social structures in which they are embedded and the array of other discourses to which they relate. As Fairclough (2003) puts it, discourse analysis involves “‘oscillating’ between a focus on specific texts and a focus on ... the ‘order of discourse’, the relatively durable social structuring of language which is itself one element of the relatively durable structuring and networking of social practices” (p. 3). The link between the two levels of specific text and social practice is made through the way the texts are analyzed, which involves not only linguistic analysis, but ‘interdiscursive analysis’, or “seeing texts in terms of the different discourses, genres and styles they draw upon and articulate together” (p. 3).

What this suggests for discourse analysis is that careful attention should be paid not only to the discourse under consideration, but also to the interdiscursive relationships in the texts which can point to how different discourse types are mixed together (Chouliaraki and Fairclough, 1999, p. 59). This combination of analysis of particular texts along with their broader contexts is especially suited for environmental problems, as Hajer explains:

Environmental discourse is an astonishing collection of claims and concerns brought together by a great variety of actors. Yet somehow we distil seemingly coherent problems out of this jamboree of claims and concerns. ... [Discourse analysis does] not simply analyse what is being said, but also includes the institutional context in which this is done and which co-determines what can be said meaningfully (Hajer, 1995, p. 2).

The question of power relations is vitally important in studying the discourses surrounding climate change. Discursive practices “situate actors in matrices of power,

which privilege some interests and marginalise others” (Pettenger, 2007, p. 10). Bäckstrand and Lövbrand (2007) note that discourse analysis has proliferated in the study of global environmental change. Its central insight, they argue, is to identify “power relationships associated with dominant narratives surrounding ‘environment’ and ‘sustainable development’” (p. 125).

Struggles over meaning and symbolic representation are particularly salient in environmental politics, with environmental risks being, to a large extent, constructed through discourse. The conflicts between different discourses and the interactions between the actors who are involved in their creation make this process dynamic and fluid as various parties try to attain discursive hegemony:

these conflicts are not to be conceptualized as semi-static plots in which actors have fixed and well memorized roles of environmentalist, policy-maker, scientist, or industrialist. On the contrary, environmental politics becomes an argumentative struggle in which actors not only try to make others see the problems according to their views but also seek to position other actors in a specific way. (Hajer, 1995, p. 53)

The responses to environmental risks are intimately tied to the process of knowledge construction. As Hajer (1995) points out, policies are not only devised to solve problems, but problems have to be devised to be able to create policies.

Dryzek (2005) notes that analyzing discourse is about identifying the meanings and relationships social actors construct through their use of language, which are bound up with political power. Further, van Leeuwen (2008) makes the point that “there is no neat fit between sociological and linguistic categories” (p. 24) and that focusing too closely on the relationship between particular linguistic operations or categories risks

overlooking relevant information. Meanings, he writes, “belong to culture rather than to language and cannot be tied to any specific semiotic” (p. 24). This is a key reason discourse analysis was chosen for this study over quantitative content analysis, which is more directly linked to particular lexical features of the text. Although a great degree of sophistication is certainly possible through coding and statistical analysis, discourse analysis remains much more sensitive to meaning and context in examining the relationships between texts and societal power structures.

A key tension in environmental risks is that between immediate, local or tangible concerns on the one hand, and broader processes – in both the socio-political and ecological domains – on the other. One of the key features of reflexive modernization and subpolitics is a movement of political power from local and national political institutions to unelected groups or bodies, such as corporations and NGOs, which do not necessarily operate within national boundaries and often work at the transnational level. Global processes are having an increasing impact on everyday life, through flows of goods, capital and meanings which transcend national borders and the internationalizing of political structures (Chouliaraki and Fairclough, 1999; Tarrow, 2005). Environmental issues also have a tendency towards globalization, with climate change in particular an issue which is global in its causes and impacts, and which cannot be dealt with through a patchwork of localized or even national responses but requires coordinated global action.

But this abstraction from tangible everyday reality can be distancing and is often held up as one of the reasons that action on climate change has not achieved high levels of popular or political support. Climate change is ultimately a global problem, and

campaigners seek to respond to it on a proper scale, to build a coordinated global movement to address what are global problems, and to influence the (sub)political institutions operating at this level. However, this requires coordination across various cultural perspectives and different discourses on the environment which arise from the social context, history, physical geography and institutional arrangements of particular cultures. While the issues under consideration in different contexts may be broadly similar, their particular meanings may not be. Burningham and O'Brien (1994) argue that because the environment generally has no fixed place in the patterns of everyday life, it becomes a 'matter for concern' only when mobilized by particular social actors who act according to their own goals in particular localized circumstances.

Environmental advocacy organizations have choices as to the level through which they construct the problem of climate change. These choices are indicative of their political or ideological commitments – whether they focus, for instance, on the actions individuals can take in their daily lives and consumption habits or on mobilizing collective action for broader institutional change; whether they emphasize the effects of climate change on particular places or the planet as a whole; whether their concern is more with mitigation of future changes or adaptation to the inevitable. These are not mutually exclusive, of course, and the ways in which organizations draw from, combine and reconfigure different environmental discourses in various contexts will be a major focus of this study. Critical discourse analysis, with its orientation towards the relationship between particular texts and broader social structures, is uniquely suited for exploring these dynamics. As Latour (2005) argues, though, it is not enough to simply

oscillate between the local/particular and the global/contextual or to ‘zoom’ from the macro to the micro. He points out that “the Big Picture is just that: a picture. And then the question can be raised: in which movie theatre, in which exhibit gallery is it *shown*? Through which optics is it *projected*? To which audience is it *addressed*?” (p. 187, original emphasis). Claims by environmental organizations – or social theorists for that matter – to define and address environmental problems at a macro level need to be interrogated critically. It is a matter of looking at where these structural effects are being produced, and tracing the connections that exist at specific sites between the micro and macro to determine how particular discourses are disseminated and reproduced.

Research design and analytic plan

This study examines a wide variety of sources in order to gain an understanding of the types of discourse used by environmental advocacy groups, as well as the relationships between discourses and between texts and institutions. The three case studies present sufficient differences that a single framework is not applicable across all of them, although there will obviously be commonalities. Analysis draws broadly from Dryzek (2005) and his framework for analyzing discourses. Dryzek argues that environmental discourses construct stories from the following elements: 1) ontology, or the basic entities whose existence is recognized or constructed; 2) assumptions about natural relationships; 3) agents and their motives, whether human or non-human; and 4) key metaphors and other rhetorical devices. However, unlike Dryzek (2005), who isolates particular discourses, the case studies presented here examines the various discourses that are mobilized and deployed by environmental organizations and their interactions with

other discourses. The emphasis is on interdiscursivity and intertextuality, focusing on the organization of social relations through texts (Fairclough, 1992; Chouliaraki & Fairclough, 1999).

Following Chouliaraki and Fairclough's contention that critical discourse analysis is particularly suited to studying the changes of late modernity, this study situates the analysis in terms of a possible shift to reflexive modernization. Beck, Bonss and Lau (2003) and Latour (2003) developed in consultation with one another a set of analytic tests where it may be possible to see whether reflexive modernization is occurring. I draw on three of these here. Firstly, the presentation of objects in a 'risky' fashion, with their unintended consequences an expected part of the decision-making process and inseparable from the initial facts. Second, a breakdown in the nature-society division, where the labor of boundary-making becomes more visible and disputes become more about attempts to draw boundaries. Third, a multiplying of rationalities and claims to knowledge, and explicit recognition that these differences need to be resolved democratically rather than scientifically.

Analysis focuses on three general areas. These three areas are interrelated and a key aspect of the analysis is the linkages and tensions between them. The first area is the publicly-available material used by the groups in their campaigning and advocacy. These include organizations' websites, social media presence, advertisements, and other publications, and represent the primary spaces where the organizations articulate their messages for a wider public and attempt to build support. The second area is the conceptual underpinnings of the organization's approach, found in books written by the

founders or leaders of the organization in question – specifically, *Break Through: From the Death of Environmentalism to the Politics of Possibility* by Breakthrough Institute founders Ted Nordhaus and Michael Shellenberger (2007), *Nature's Fortune: How Business and Society Thrive by Investing in Nature* by Nature Conservancy CEO Mark Tercek (2013), and *Eaarth: Making a Life on a Tough New Planet* by 350 founder Bill McKibben (2010). The third site for analysis is the trajectory of the organization's communication efforts in the broader public sphere. Again, as the three organizations have different goals for their campaigning the material analyzed differs between case studies. It includes debates and controversies within the environmental community about the organization and their approach, coverage of the organization in the news media and which particular aspects of their approach gain the most traction, and the interactions between different discourses. In each case study, specific moments of public contention, when different perspectives were debated publicly through news media and other fora, are selected for particular attention.

Overview of case studies

Popular mobilization: 350 and fossil fuel divestment

One of the more prominent environmental campaign groups in recent years is 350.org, founded in 2007 by author and environmentalist Bill McKibben. Though run by a relatively small team of organizers, 350 has staged coordinated demonstrations in every country of the world bar North Korea, relying on self-organization by local groups under the 350 banner. They use a variety of modes of activism, including demonstrations,

protest marches, work parties, public art projects and civil disobedience, with an emphasis on large, visible displays of actions which are circulated through the internet and mainstream news media. They stress both global connectedness and localized, place-based and embodied action.

McKibben, in his 1989 book *The End of Nature*, was one of the first popular authors to put forward the argument there is essentially no part of the planet free from the influence of humans: “the way of life in one part of the world in one half-century is altering every inch and every hour of the globe” (p. 46). Even the weather we experience is not ‘natural,’ in the sense that the human influence on the planet’s climate changes planetary weather cycles. His 2010 book *Eaarth: Making Life on a Tough New Planet* extends this position, arguing that humans have essentially created a wholly different planet to the one on which we evolved and to which we now must adapt. This adaptation comes in the form of building more resilient, localized economies, moving infrastructure ‘closer to home,’ and emphasizing resource conservation. Achieving this requires a fundamental change in social organization and a transformation in politics, industry and society, hence the need for a global, citizen-led movement. In broad terms, the chapter considers the ideas and assumptions about society’s relationship to the natural world as presented in McKibben’s writing, how they are implemented by 350 as campaign group and by activists in localized contexts, and how all of this is reflected in broader media coverage and public discourse surrounding their activities.

As the founder and figurehead of 350, McKibben’s philosophy clearly influences how the organization operates. Chapter 4, ‘Politicizing climate change: Challenging

power through fossil fuel divestment', while considering the organization as a whole, will focus on the Fossil Free divestment campaign to encourage colleges and universities to sell any investments they have in fossil fuel companies. The major aim of this campaign is taking action against the fossil fuel industry. Seen in terms of the 'subpolitics' defined by Beck (1992), the campaign is an effort to assert greater citizen-led democratic control over institutions currently outside the democratic process yet which have the power to profoundly shape the future of the planet.

The Fossil Free campaign offers a contrast to other environmentalist interventions in the economic realm, such as the more individualist ethical investment and ethical consumption discourses which operate largely within the rules of the economic system. The divestment campaign highlights the ineffectiveness of individual action and makes the argument that turning fossil fuel companies into socially unacceptable investments will succeed in preventing the world's carbon reserves from being burnt. While critics argue that university endowments should not be used for social purposes other than the immediate economic return they provide, the Fossil Free campaign draws on familiar repertoires of contention, especially (and explicitly) the 1980s divestment campaign targeting South Africa's apartheid regime.

The major focus of 350 is building a popular movement. Through their displays of coordinated action and ongoing campaigns they build support and raise visibility for climate-related issues. Much of their communication activity is dedicated to email and social media, which they encourage supporters to share with their networks. Many of their campaigns also encourage supporters and locally-organized groups to create their

own images which are then aggregated as a broad collective statement. This means a larger show of support, but also some loss of control of the message as local groups are able to interpret it in a variety of diverse ways. The organization thus presents an interesting case study for examining the tensions between global or holistic approaches to environmental problems and local or place-based, as they attempt to bring together concrete local actions to serve an all-encompassing goal of preventing climate change. Because their campaigns are often oriented towards specific targets – stopping the Keystone XL pipeline, encouraging divestment from fossil fuel companies – the discourses from which they draw are often not immediately apparent. They are articulated more clearly in op-eds written by McKibben and his broader social vision and path to a sustainable future is outlined in *Eaarth*. This chapter examines how these discourses are manifested in 350's campaigning, especially as they relate to divestment, and the extent to which they are shared by the organization's supporters. 350 has had some considerable impact on public debate in recent years, and attracted a lot of attention and commentary on the merits of their targets and tactics.

The divestment campaign has been one of the more high-profile climate activist campaigns, and has established a presence on over 300 college campuses across the US and more internationally. Unlike the other two organizations 350 does not feature as much content on their website relating to their background information about the issues or reasons for acting, with their site serving mainly to offer ways for already motivated people to get involved and take action. Their general strategy is to attract people to their campaigns using coverage in other media and awareness-raising events, while using their

own website and social networking presence to reinforce their message and involve people in their movement.

The chapter analyzes news media discourse and campaign material from the years 2012 and 2013, taking in the campaign's launch and subsequent rapid expansion. Articles related to fossil fuel divestment from print, online and broadcast news outlets were sourced from the Lexis Nexis database using the search terms 'divestment' and 'fossil fuel'. Articles were included in the analysis only if they substantively mentioned the fossil fuel divestment campaign, resulting in a total of 101 articles. These include news reports, op-eds and opinion columns, and television and radio news transcripts (see Table 1 for a breakdown). Also included in the analysis are articles, resources and blog postings from 350.org and the divestment campaign's official website, gofossilfree.org. These include guides for activists, frequently asked questions and press releases. Along with these sources, analysis draws on campaign figurehead Bill McKibben's (2010) book *Eaarth* for a broader perspective on how McKibben sees climate activism contributing to a more general politics of climate change.

Radical modernization: The Breakthrough Institute

The ideas in the concept of the Anthropocene, that humans are to a large degree responsible for shaping planetary geophysical and biological systems and should more consciously control our impacts towards more beneficial ends, underpins much contemporary environmental politics. However, while the Anthropocene may serve as an organizing principle for a new environmental politics, there is clearly no discursive closure around the concept and it can be used to support a broad array of policy

objectives. The work of Ted Nordhaus and Michael Shellenberger represents one of the more direct translations of scholarly theorizing on the topic into policy discourse. Their highly controversial 2004 essay ‘The Death of Environmentalism’ and follow-up book *Break Through: From the Death of Environmentalism to the Politics of Possibility* (Nordhaus & Shellenberger, 2007) draw heavily on Latour’s theorizing. Interestingly, Latour himself has embraced this approach and become a strong supporter of Nordhaus and Shellenberger’s efforts. Chapter 5, ‘Ecomodernism: The Breakthrough Institute’s theology for the Anthropocene’ examines the controversy surrounding the pair’s work – which is potentially as instructive about the assumptions and underpinnings of ‘mainstream’ environmentalism as it is about Nordhaus and Shellenberger’s ideas – and their subsequent activities through their think-tank The Breakthrough Institute culminating in the release of *An Ecomodernist Manifesto* (Asafu-Adjaye et al., 2015) in 2015.

Nordhaus and Shellenberger advocate a radical rethink of political approaches to climate change, away from a pollution-based paradigm and politics of limits. They instead advance an approach focused on innovation, technology and growth, while also providing belonging and fulfillment to citizens. In line with the critiques offered by Mouffe (2005) and Whiteside (2012) of reflexive modernization more generally, Nordhaus and Shellenberger have little time for agonistic politics, or questions of institutional change and power relations. Their approach “will see in institutions like the WTO, the World Bank, and the International Monetary Fund not a corporate conspiracy to keep people poor and destroy the environment, but an opportunity to drive a kind of

development that is both sustainable and equitable” (Nordhaus and Shellenberger, 2007, p. 271). In another essay, they call for a “modernization theology” which sees human development as the key to the preservation of nature, rather than antithetical to it (Shellenberger and Nordhaus, 2011). In practical terms, this effectively depoliticizes environmental problems, reducing them to a series of obstacles to be overcome through ever-advancing technology rather than the result of social and economic relationships designed to benefit certain interests:

The good news is that we already have many nascent, promising technologies to overcome ecological problems. Stabilizing greenhouse gas emissions will require a new generation of nuclear power plants to cheaply replace coal plants as well as, perhaps, to pull carbon dioxide out of the atmosphere and power desalination plants to irrigate and grow forests in today's deserts. ... And the solution to the species extinction problem will involve creating new habitats and new organisms, perhaps from the DNA of previously extinct ones. (Shellenberger and Nordhaus, 2011)

Despite their calls for a more inclusive politics, citizens are often absent from their considerations. Breakthrough has had some success in influencing policy, at both the national and global levels. The organization has attempted to change public discourse on environmental issues, to the point of abandoning the term ‘environmentalism,’ and in so doing has attracted considerable controversy. These policy successes and controversies are illustrative of emerging dynamics within the environmental movement.

The efforts of the Breakthrough Institute are focused mainly at an elite level, targeting policymakers and environmental leaders rather than the general public directly. The institute publishes a journal featuring contributions from a range of thinkers around a central theme, as well as one-off reports on specific topics and opinion-editorial pieces

for newspapers and magazines. Their aim has been to challenge the often-unexamined assumptions of the environmental movement and advocate for a new type of progressive politics. This approach means that their own position and the discourses from which they are drawing are usually made explicit. Their intellectual genealogy and the theories and philosophies on which their work is based are explicated in the book *Break Through*, and also in many of the *Breakthrough Journal* issues which feature contributions from academics as well as practitioners. Additionally, because their work has stirred up controversy and provoked reaction from within the environmental community it has also generated discussion and reflection on the approach of other environmental groups. Chapter 5 examines how the Breakthrough Institute has attempted to reconstruct the problems of the environment – and climate change in particular, on which they focus heavily – and the linkages between their intellectual background and their specific policy proposals and institutional commitments.

The organization itself is relatively small-scale, especially as compared to the other two case studies. The chapter does not focus to a great extent on the workings of the institution itself. In saying this, though, think-tanks in climate politics are usually associated with conservative opposition to climate change and how they have effectively stymied political action (as chronicled by McCright and Dunlap, 2000; 2003). Breakthrough thus presents an interesting case of a progressive think-tank promoting action on climate change (though it is certainly not the only one). However, the chapter is more concerned with the body of ideas and discourses which The Breakthrough represents. This can be seen through the work published by its founders as well as its

loose network of fellows and supporters from academia, business and other environmental organizations.

The controversy surrounding the release of Shellenberger and Nordhaus' 2004 essay 'The Death of Environmentalism' provides a window into their perspective and its differences with the mainstream environmental movement. The essay was a topic of discussion with the environmental community and in the news media following its release in October of 2004. A search of the Lexis-Nexis database for the phrase "death of environmentalism", or references to Shellenberger and Nordhaus, returned 38 relevant newspaper and magazine articles (20 from newspapers and 18 from magazines and trade publications) from the time of the report's release in October 2004 until the end of 2006. It was not until February 2005 that news organizations began making reference to it and there were only four articles from 2006, the last in May. Environmental news website *Grist* was also a major forum for discussion of the report. *Grist* republished the report in January 2005 and followed this with responses from a range of voices in the environmental community between January and May 2005. Eighteen of these responses are accessible and are included in this analysis. Coverage and responses to the debate in mainstream news media also helps to elucidate how Shellenberger and Nordhaus' perspective fits with broader political discourse. This chapter also examines more recent publications released by and associated with the Breakthrough Institute. In particular, the organization's online publication *Breakthrough Journal* often deals with social responses to climate change and environmental problems. Analysis includes thirty-six articles which address politics and environmentalism in the Anthropocene, along with the book

Break Through (Nordhaus & Shellenberger, 2007) and *An Ecomodernist Manifesto* (Asafu-Adjaye et al. 2015), the organization's statement of principles about politics in the Anthropocene released in 2015 (see Table 1). Although Breakthrough does not itself aim for a wide audience, communication is central to its mission of changing the terms of the debate around environmental problems, advancing a discourse of radical ecological modernization and new ways of thinking about the relationship between nature and society.

Nature's capital: The Nature Conservancy

While some environmental organizations adopt an oppositional approach to the institutions they see as responsible for environmental harm, others try and work with them to create change from within. Principally this involves using market-based approaches to create economic incentives for businesses to adopt environmentally-friendly measures, and working within the constraints of the political-economic system. The Nature Conservancy (TNC) is one of the oldest and largest environmental organizations. It has traditionally focused on land management and conservation, relying on large donations to buy up threatened ecosystems and working with landowners to promote environmentally responsible practices. As such the organization has been critiqued for its close ties to big business and for being ideologically aligned with institutions responsible for much environmental damage. This is a position TNC for the most part embraces; CEO Mark Tercek published a book entitled *Nature's Fortune: How Business and Society Thrive by Investing in Nature* (Tercek & Adams, 2013).

Chapter 6, ‘Gardening the Anthropocene: Conservation after the end of nature’ uses TNC as a focal point to examine the discourse of conservation and environmental protection through economic incentives and market-based solutions. Tercek and others have been promoting concepts such as ‘natural capital,’ ‘ecosystem services’ and ‘green infrastructure’ to emphasize the monetary value natural processes and systems have for companies. Leaders within TNC, particularly chief scientist Peter Kareiva, have been active in promoting an intellectual movement known as ‘new conservation,’ which argues for a human-centered conservation where the key metric for action is the ultimate benefits to people, rather than the intrinsic value of nature. Such concepts recognize the interconnectedness of nature and society, and advance a form of natural resource management in line with particular social goals. This is a form of internalizing the externalities associated with industrialization, but at the same time does not, for the most part, reflexively address the role that these institutions play in perpetuating environmental harms and assumes the continuation of existing socio-political structures. As such this approach has found success amongst businesses and policy-makers. The Anthropocene throws these issues into sharper relief, and TNC’s increasing focus on global issues such as climate change brings these tensions to the fore. This discourse has broad implications for responses to environmental challenges, as it is more likely to gain widespread support with businesses, and emphasizes certain approaches such as individual over structural solutions and adaptation over mitigation. TNC’s outreach and campaigning has traditionally focused on soliciting donations. This case study looks at the discourses

which are used by TNC in their appeals to the public and how they differ from those espoused by its leaders in other venues.

The Nature Conservancy is a large and established environmental NGO. They have for the most part been seen as an establishment-oriented organization, seeking contributions from large (often corporate) donors and not seeking to challenge the socio-political status quo. As climate change has become of greater significance to environmental organizations of all types, TNC has had to reconcile their market-friendly, conservation-based approach with the challenges posed by climate change (which cannot be addressed by simply buying up land). In line with this they have been working on broadening their approach, focusing more on outreach and public engagement along with policy work. The vision of green capitalism promoted by Tercek in his book *Nature's Fortune* requires movement in both the government and corporate sectors and TNC is expanding its efforts to put public pressure on institutions, while still not challenging the economic or political systems more broadly. Tercek, in his book, particularly focuses on the concept of natural capital, putting an economic value on the services provided by ecosystems and incorporating this into decision-making of businesses and governments. The idea is that once these actors recognize the value of environmental processes they will work to protect them. The idea of 'new conservation' promoted by key figures within TNC incorporates this economic discourse into a broader philosophical realignment of conservation practice, putting humans rather than nature at the heart of conservation efforts. Chapter 6 uses TNC as a focal point for examining how these concepts are being adopted in advocacy efforts and the degree to which they are entering

public and policy discourse. This includes the challenges presented, in conceptual and practical terms, for dominant institutional structures and the implications for environmental politics and the role of the public in addressing environmental problems. As part of this the chapter looks at the various storylines used by TNC in its advocacy efforts in different spheres, and how a traditionally place-focused organization is adapting to address environmental challenges on a global scale.

An important part of the analysis is the variations in discourse and underlying assumptions about nature found in the organization's different areas of operation. A key issue for this chapter is the public debate over new conservation, including the key texts written by TNC leaders outlining its principles and the backlash they generated. Analysis includes 32 articles from the period 2011-2015 at the height of the debates, many of them in response to a controversial essay co-authored by TNC's chief scientist Peter Kareiva (Lalasz, Kareiva & Marvier, 2012). Articles are a mix of feature stories by environmental journalists, and editorials or opinion pieces written by conservation practitioners (see Table 1). The articles were sourced through web and Lexis Nexis searches for key terms, and through links and references in the articles themselves, many of which were in direct conversation with one another. Some of the ideas espoused by new conservationists about human-centered conservation and putting a price on nature are not commonly seen in public environmental appeals (and, as Tercek acknowledges, many environmentalists are uneasy with this line of thinking). The chapter also analyzes advertising and publicity campaigns by TNC and how the ways in which the organization promotes conservation to the public is consistent with the outlook of its senior figures. This includes the key

sections of the organization's website encouraging people to get involved or donate money, and sub-sites focusing on specific campaigns or issues. Two in particular analyzed here are TNC's tie-in website to the PBS documentary series *Earth: A New Wild* and a campaign around the theme of 'The Future of Nature.' The TNC website also includes a blog entitled Conservancy Talk which features posts about TNC's operations from Tercek and other leaders in the organization. From 122 posts between 2013 and 2015, 23 which include self-reflexive discussion of TNC's approach were selected for analysis. Emails sent to TNC's members were also included in the analysis; out of 250 emails sent between July 2013 and December 2015, 78 which focused on specific campaigns or initiatives to protect nature were selected for analysis (see Table 1).

Summary and comparative benchmarks

These three cases represent different approaches for addressing environmental problems. All three organizations accept the notion that we are living in the Anthropocene, that humans are a major force influencing the planet's biophysical systems and thus need to more consciously or deliberately manage our environmental impacts. From this common starting point, however, the three diverge significantly, using different tactics and advocating different courses of action. This study seeks to identify the discourses these organizations draw from in their response to climate change and their commonalities and points of difference. Of course, each organization does not offer a singular unified approach, but draws on different discourses depending on the context. This is particularly the case for 350, which embraces a more decentralized mode of campaigning, and the Breakthrough Institute, which features contributions from a variety

of contributors. Nonetheless, there are a number of broad areas which can be used to compare the three cases.

- The first of these is the way they deploy the concepts of ‘nature’ and ‘the environment.’ The recognition of the Anthropocene era entails a blurring or dissolving of the boundaries between human society and the natural world and an acceptance of the interconnectedness of the two. Yet old categorizations are hard to break down; as Latour (1993) has argued, this distinction is one of the fundamental principles on which Western modernity is based. Under consideration will be the extent to which the organizations challenge the nature-society binary, and the discursive means by which they do so.
- Related to this is the attitude of the organizations towards dominant socio-political institutions, in particular the economic system. In some cases there are obvious surface-level distinctions, with 350 taking a much more oppositional stance than TNC, but the programs of all three imply broad changes to how the economy functions. The changes advocated by the organizations, and the discourses on which they draw in this advocacy are illustrative of their position within the broader political landscape.
- A third area of comparison is the contextual level at which environmental problems and solutions are pitched. As discussed above, whether climate change is described in terms of global processes or localized impacts, and whether potential solutions are located within national or transnational institutions or at an individual scale is indicative of ideological commitments.

- The final major point of comparison, which to an extent underlies all of the above, is how the organizations see the role of the public in addressing environmental problems and, more broadly, in building a common future. This includes how involved the general public is in the organization's activities, as well as the more conceptual position of laypeople in relation to scientific or political elites.

Table 1: List of primary sources

Source Type	Details	Number
Chapter 4		
Book	<i>Eaarth</i>	
News sources	Newspaper reports	54
	Newspaper op-eds	25
	Letters to the editor	8
	Broadcast transcripts	14
	<i>Total</i>	<i>101</i>
Campaign material	Gofossilfree.org 350.org (divestment material) Emails to supporters	22
Chapter 5		
Book	<i>Break Through</i>	
News sources	Newspaper reports	7
	Newspaper op-eds	12
	Magazine reports	8
	Magazine op-eds	11
	<i>Grist</i> forum responses	18
	<i>Total</i>	<i>56</i>
BTI publications	<i>Death of Environmentalism</i> <i>An Ecomodernist Manifesto</i> <i>Breakthrough Journal</i> articles	36
Chapter 6		
Book	<i>Nature's Fortune</i>	
News and commentary	Magazine or newspaper features	15
	Op-eds or blogs	7
	Academic journal editorials	9
	<i>Total</i>	<i>31</i>
TNC publications and publicity material	TNC website and promotional campaigns	
	'Conservancy Talk' blog posts	23
	Emails to members	78

Chapter 4 – Politicizing climate change: Challenging power through fossil fuel divestment

Introduction: Carbon divestment and the Fossil Free campaign

This chapter is about the fossil fuel divestment movement, perhaps the largest climate activism campaign in the US in recent years. The Fossil Free campaign is coordinated and supported by climate activist organization 350 but is made up of many autonomous and self-organized groups based for the most part at colleges and universities across the United States and Canada. The stated purpose of the groups is to encourage institutions to sell off any assets they own of the top two hundred publicly-traded fossil fuel companies. The main targets are universities, though religious groups, municipal governments and retirement funds are also facing pressure to divest from fossil fuels. The campaign works to provide templates and logistical support to divestment activists working at a local level and build a unified national (and subsequently international) movement for fossil fuel divestment.

The divestment campaign offers a contrast to other environmentalist interventions in the economic realm, such as the more individualist ethical investment and ethical consumption discourses which operate largely within the rules of the economic system. It highlights the frequent ineffectiveness of individual action and makes the argument that turning fossil fuel companies into socially unacceptable investments will succeed in preventing the world's carbon reserves from being burnt. Divestment has been used as a

tactic by campaigners on other issues. The Fossil Free campaign draws on familiar repertoires of contention, especially (and explicitly) the 1980s divestment campaign targeting South Africa's apartheid regime. In common with other divestment campaigns, the ostensible economic aims of the Fossil Free campaign – reducing the stock value of companies through investors withdrawing their money – are subordinate to broader political goals of movement-building and pressuring government to enact climate change legislation. The major arguments in favor of divestment are made in moral rather than economic terms. The success of the divestment movement can in part be attributed to this combination of the economic, moral and political dimensions, linking an economic rationale and visible actions with a strong moral imperative and a broader strategy for political and social change.

The Fossil Free campaign was launched in the summer of 2012. The idea of divestment was first mentioned publicly by 350 leader Bill McKibben on an appearance on Sunday morning MSNBC talk show *Up With Chris Hayes* on July 8 2012, where in talking about climate activism he stated, “I think one of the next frontiers for this may have to do with looking at divestment from the fossil fuel industry, you know, reminiscent of what happened in the apartheid movement a quarter century ago. We’ve got to go after that financial power” (MSNBC, 2012). The starting point for the campaign was a six thousand-word article written by McKibben published in *Rolling Stone* magazine, appearing on the magazine’s website on July 19, 2012. Under the headline ‘Global Warming’s Terrifying New Math: Three simple numbers that add up to global catastrophe – and that make clear who the real enemy is,’ the first half of the article is

spent laying out the ‘carbon bubble’ argument, that fossil fuel companies base their market value on reserves of oil, gas and coal that cannot be safely burned. The last section of the article then introduces the idea of divestment targeting fossil fuel companies. The stated outcome of the campaign is regulatory action, and specifically putting a price on carbon emissions – making fossil fuel companies internalize their externalities. Divestment is presented as a means of reducing the political power of the industry such that this type of regulation would become possible. After noting the ineffectiveness of individual action and the weak and halting political progress to date, McKibben argues divestment can break the political influence of fossil fuel companies. Achieving this, though, requires a movement, a mass mobilization of angry citizens working together against the common enemy of the industry, leading to a transformation of politics and society.

McKibben’s *Rolling Stone* article was followed up in November 2012 with a traveling roadshow. Called *Do The Math*, the show involved McKibben and a cast of campaigners and activists explaining the merits and logistics of divestment to large audiences in twenty cities. The campaign quickly gained momentum, and within a month divestment groups were in place at over 100 campuses. The Fossil Free website provides resources and advice for groups to start divestment campaigns, and regional coordinators employed by 350 work with student leaders to develop and expand their campaigns and coordinate their actions with other groups. This chapter analyzes news media discourse and campaign material from the years 2012 and 2013, taking in the campaign’s launch and subsequent rapid expansion. Articles related to fossil fuel divestment from print,

online and broadcast news outlets were sourced from the Lexis Nexis database using the search terms ‘divestment’ and ‘fossil fuel’. Articles were included in the analysis only if they substantively mentioned the fossil fuel divestment campaign, resulting in a total of 101 articles. These include news reports, op-eds and opinion columns, and television and radio news transcripts (see Table 2). Also included in the analysis are articles, resources and blog postings from 350.org and the divestment campaign’s official website, gofossilfree.org. These include guides for activists, frequently asked questions and press releases. Along with these sources, analysis draws on campaign figurehead Bill McKibben’s (2010) book *Eaarth* for a broader perspective on how McKibben sees climate activism contributing to a more general politics of climate change.

Table 2: List of primary sources for Chapter 4

Source Type	Details	Number
Book	<i>Eaarth</i>	
News sources	Newspaper reports	54
	Newspaper op-eds	25
	Letters to the editor	8
	Broadcast transcripts	14
	<i>Total</i>	<i>101</i>
Campaign material	Gofossilfree.org	
	350.org (divestment material)	
	Emails to supporters	22

The carbon bubble and the financial risk of CO₂ regulation

The intellectual justification for the divestment campaign comes largely from a report released in 2011 by The Carbon Tracker Initiative, a UK-based non-profit set up to

highlight the links between financial markets and climate change. The report, entitled ‘Unburnable Carbon – Are the World’s Financial Markets Carrying a Carbon Bubble?’ (Leaton, 2011), makes the case that most of the world’s proven reserves of fossil fuels must not be consumed if we are to avoid the worst effects of climate change. All nations in the United Nations Framework Convention on Climate Change process agreed at the 2010 Cancún climate conference on the necessity to limit planetary warming to two degrees Celsius about pre-industrial levels. The Carbon Tracker report shows that to meet this target, no more than 565 Gigatons of carbon dioxide (GtCO₂) can be emitted into the atmosphere between 2011 and 2050 – the so-called ‘carbon budget.’ However, the world’s proven reserves of fossil fuels, according to the report, amount to 2795 GtCO₂, about five times the recommended limit. This means that if the two degrees target is to be met, about 80% of current fossil fuel reserves will need to be left underground. The report outlines the implications of this for financial markets. At present, fossil fuel reserves held by companies are treated as assets and contribute to their valuation and stock price. The report argues that such assets carry considerable risk, as there is a high chance their value will never be exploited and they will thus become ‘stranded’. This is the ‘carbon bubble’ of the report’s title, with a large amount of capital being tied up in stranded assets which will likely not provide any return, with disastrous consequences for investors – and the global economy as a whole, given the size and value of companies dealing in fossil fuel extraction. The notion that these companies will not, in fact, extract (and the public will not burn) these fossil fuel reserves presumes that enough social

pressure will be brought to bear to prevent it. Of course, such social pressure is precisely what advocates of divestment hope to foment.

The scope of the Carbon Tracker report is largely limited to financial markets, and provides recommendations for investors, analysts and regulators in the financial system to limit their risk of exposure to stranded carbon assets and prevent the carbon bubble bursting. The report notes that the “current system of market oversight and regulatory supervision is not adequate to send the required signals to shift capital towards a low carbon economy at the speed or scale required,” and that “until international regulatory frameworks and accounting methodologies for valuing reserves change, it is perfectly logical for investors, and their advisors, analysts, and brokers, to ignore long-term problems for fear of missing out on short term gain” (Leaton, 2011, p. 18). The recommendations are primarily aimed at increasing transparency and ensuring that potentially unburnable carbon is taken into account by financial markets. There is a particular emphasis on a tighter regulatory framework, with market regulators encouraged to require companies to report their fossil fuel reserves and emissions.

As the report is entirely focused on the financial sector the science of climate change is unquestioned, and there is no discussion of its impacts or of any moral dimension save a brief statement in the introduction of the need to “prevent dangerous climate change” (Leaton, 2011, p. 4). It is noteworthy that divestment is not mentioned at all. The report recommends that asset owners “Review your exposure to systemic risk” and “Assess whether you have interests in potentially stranded assets if only 20% of the world’s fossil fuel reserves can be burnt” (Leaton, 2011, p. 28). It stops short, however,

of encouraging investors not to put their money into fossil fuel stock or to sell off any they currently hold. The stated aim of the report is to transform the structure and incentive regime of markets such that a carbon bubble can be avoided with a minimum of economic harm. Carbon Tracker co-founder Mark Campanele, who originally developed the ‘unburnable carbon’ thesis, noted in a speech in January 2013 that Carbon Tracker was set up “just specifically to look at a very narrow set of questions around financial stability, market risk, what the market’s already financed, who’s measuring those risks and whether we should have a policy response to it” (Campanele, 2013). When asked about the 350-led divestment campaign, he noted that all of McKibben’s numbers are “based on our report. We didn’t come out calling for divestment. ... [the divestment campaign] is kind of good to get people thinking about it. It doesn’t get us where we need to be” (Campanele, 2013). In his view the divestment campaign, while serving to draw attention to the issue, will not have the impact that action on the part of market regulators will.

Subpolitics and divestment

While both CarbonTracker and 350 are advocating, essentially, for greater government regulation of carbon emissions, their overall objectives are otherwise very different. Where CarbonTracker advocates working with the finance industry to reform the system from within, 350’s goals are much more expansive. McKibben acknowledges that the “analysts who wrote the Carbon Tracker report and drew attention to these numbers had a relatively modest goal – they simply wanted to remind investors that climate change poses a very real risk to the stock prices of energy companies”

(McKibben, 2012a). He argues, though, that the rational self-interest of the finance industry will not be enough to “spark a transformative challenge to fossil fuel. But moral outrage just might – and that's the real meaning of this new math. It could, plausibly, give rise to a real movement.” The divestment campaign is just one of several simultaneous and interrelated initiatives, all of which are geared towards a broader societal transformation. For CarbonTracker, political action is a distraction that must be negotiated to get markets functioning more efficiently; for 350, politics is everything, and an informed, mobilized citizenry a more important outcome than changing investment rules.

The divestment campaign, while it has historical precedents, represents a relatively new approach in the domain of climate campaigning. Other interventions in the economic realm have tended to focus either on socially responsible investing, or consumer purchasing decisions. Both of these are individualized forms of action, and neither challenges dominant institutional structures in a significant way. Haigh (2006) argues that ethical investment portfolios in fact prop up and legitimize the political-economic status of financial institutions. At the same time, this approach also constrains the actions of NGOs through infiltrating social resistance and incorporating it into hegemonic institutions. As such, the outcomes are virtually guaranteed to favor the objectives of investors. This transfers responsibility for addressing social problems to capital markets, imputing the expansion of capital with a “social imaginary” which in real terms leaves most social problems unaddressed (Haigh, 2006, p. 995). Similarly, the green consumption approach places the solutions to climate change within existing

socioeconomic structures and individualizes responsibility to consumers who are only able to express their politics through their purchasing decisions.

Seen in terms of the subpolitics defined by Beck (1992), the Fossil Free campaign is an effort to assert greater citizen-led democratic control over institutions currently outside the democratic process yet which have the power to profoundly shape the future of the planet. It is based on collective action and moral outrage, and is acting as much against the financial system as within it. McKibben (2012a) acknowledges the limits of individual action in his Rolling Stone article, arguing that “you need to do more than change light bulbs. You need to change the system.” Similarly, the campaign website states that “We’re all complicit in fossil fuel consumption, and we should do all that we can to reduce our own use, but the real culprits – the ones who are rigging the system – are the fossil fuel companies” (Fossil Free, 2013a).

Divestment as a strategy for social movements has a rich history (Ansar, Caldecott & Tilbury, 2013), one with which the Fossil Free campaign is actively engaged. Prior to the campaign’s launch, there were several small and fairly isolated divestment campaigns related to climate change on university campuses, most of them targeting the coal industry specifically. Divestment has been a tactic adopted by campaigners on other issues, most recently involving campaigns to divest university endowments from tobacco companies, and those associated with the Sudanese government after the atrocities in Darfur. The most prominent and successful divestment campaign, which all subsequent efforts have sought to emulate, was the 1980s campaign targeting companies which had business interests in South Africa.

The Fossil Free campaign draws explicitly on the South African campaign in two ways. First, in their repertoire of tactics, the forms of political action used (Tilly and Wood, 2009): the South African campaign is often cited by McKibben and others as a successful campaign and therefore the approach should be replicated in this domain. Secondly, the comparisons lend moral legitimacy to their efforts. The anti-apartheid campaign is drawn on not only for its tactical repertoire but explicit parallels are drawn between the two causes. This works in service of the general aim of Fossil Free to engender a feeling of outrage and give campaigners a clear target for their anger. The apartheid-era South African government was an obvious villain, and by substituting fossil fuel companies in its place this campaign is attempting to lend climate change the same type of moral certitude. McKibben (2012a) writes in Rolling Stone that public action can transform an industry:

Once, in recent corporate history, anger forced an industry to make basic changes. That was the campaign in the 1980s demanding divestment from companies doing business in South Africa.

The article also quotes anti-apartheid leader Archbishop Desmond Tutu about the importance of the South African divestment efforts, and the Do The Math roadshow featured a short video message from him lending his support to the Fossil Free campaign. Though surveys repeatedly find that action on climate change is seen as important by a large percentage of the public it is also seen as a low priority and has struggled to attract strong and consistent support (Brulle, Carmichael & Jenkins, 2012). This is in part due to most people seeing it as distant from everyday concerns, along with uncertainty (or fatalism) in how to go about addressing it (Whitmarsh, O'Neill & Lorenzoni, 2013). The

Fossil Free campaign provides a clearly defined target – “we have met the enemy and they is Shell,” writes McKibben (2012a) in his Rolling Stone piece – and is presented as a parallel to a prior campaign whose moral legitimacy and rightness would today be unquestioned. Given these connections, it is instructive to briefly examine the South African divestment campaign and its legacy, and how it compares to the approach taken by the Fossil Free campaigners.

The South African divestment campaign

Anti-apartheid activism in the US goes back to the mid-1960s, when student campaigners began to put pressure on American companies which did business with South Africa and its white-minority government. In response to activist pressure, a set of guidelines, known as the Sullivan Principles, was drawn up under the leadership of civil rights campaigner and General Motors board member Reverend Leon Sullivan. The Sullivan Principles set out criteria, which grew more stringent over time, for assessing companies’ business practices in South Africa and assigned ratings based on the degree to which they were implemented. During the mid-1970s and early 1980s this was the dominant way in which universities and other large investors dealt with the situation, pledging to only invest in companies which signed on to the Sullivan Principles. By the early 1980s it was becoming clear that the engagement approach was not having the desired effects – many businesses were still operating in South Africa, and the regime was showing no signs of changing its policies. Arnold and Hammond (1994) argue that the Sullivan Principles mainly “served the ideological purpose of providing a moral rationalization for continuing business in South Africa” (p. 112). Alternatively,

progressive activists began concentrating their efforts on divestment in the early 1980s, starting on college campuses and spreading from there. As the campaign built momentum in the late 1980s, around 150 American college campuses, as well as more than one hundred state and municipal governments, had divested themselves of any assets in South African-linked companies (Voorhees, 1999).

Divestment debates in the US split along political and ideological lines. While all sides publicly opposed the policies of the South African regime, progressive anti-apartheid activists called for strong economic sanctions including direct and indirect corporate withdrawal. The conservative position, which included most business groups, supported a policy of ‘constructive engagement’ and

called for gradual reforms that would not radically alter the political and economic status quo within South Africa. On the corporate front, the conservative position argued that United States businesses operating in South Africa could serve as a ‘progressive force’ to hasten the end of apartheid. (Arnold and Hammond, 1994, p. 112)

Arnold and Hammond note that these challenges to the dominant ‘engagement’ approach were well in advance of shifts in mainstream public opinion on the issue and indeed helped to open an oppositional discourse, and show that accounting can function as a contested ideological terrain where dominant ideology can be challenged.¹ Indeed, a key feature of the divestment campaigns is that their direct economic impact was almost beside the point. Later analyses have shown that despite the large number of institutions which divested from South African-affiliated companies, there was little effect on stock values of companies with South African operations or on South African financial markets (Teoh, Welch & Wazzan, 1999). Lytle and Joy (1996) in fact found that stock prices of

firms which announced plans to stay in South Africa performed better than those which indicated they would leave the country, suggesting that social pressure on markets had in some cases a negative effect.

The main effect – and purpose – of the divestment campaign was to raise awareness and drive public opinion. Voorhees (1999) argues that through increasing public awareness the campaign created a political environment conducive to Congressional sanctions against South Africa. Divestment provided a focal point for activism and gave activists a firm target and clear goal. The main aim was to “get people moving,” in the words of an organizer quoted by Voorhees: “People need and want something to do on South Africa, and divestment provides them with such an opportunity” (p. 134). And although the idea was advanced that divestment would hurt companies financially, this was not a major component of the message:

Some activists theorized that if enough institutions adopted total divestment policies, the stock prices of the targeted corporations would be deflated, making it more difficult to finance new stock issues and to resist hostile takeovers. But most conceded that divestment would have little, if any, direct economic impact on the targeted companies; the economic pressure argument, therefore, did not feature prominently in debates. (Voorhees, 1999, p. 134).

Divestment, then, was a means of building a movement and creating public pressure. The campaign resulted in many businesses pulling out of South Africa and economic sanctions being passed by the US Congress in 1986 by a large bipartisan majority (over President Reagan’s veto). Because the direct financial impact was small, Voorhees contends that the movement would not have worked if not firstly for its public nature which mobilized people, and secondly for the threat of escalating political pressure, in

particular action by Congress. The psychological impact of a highly visible and motivated campaign, and the potential for it to spur legislative action was the driving force behind responses by companies and the South African government. Grassroots mobilization for divestment was therefore necessary but not sufficient to achieve the aims of the campaign, and had to work in tandem with broader political and economic forces.

There are obviously parallels between the South African campaign and Fossil Free, but there are key differences as well. Although companies were the direct targets of the South African campaign, the ultimate foe was the South African government itself. Once public pressure built to a certain level, most companies could afford to scale back their operations in South Africa, enhancing their image in the US while in most cases not hurting their bottom line to a huge extent. Similarly, the US government could, when pushed, impose sanctions against South Africa at no great harm to American economic interests. The fossil fuel industry represents a somewhat different type of target. Fossil fuel companies are much more central to the economy, and given their massive size it is even less likely that a divestment campaign will have a direct financial impact on their profitability. Additionally, the majority of existing fossil fuel reserves are owned or controlled not by private companies, but by sovereign governments who are not susceptible to divestment campaigns in any case.

Lines of argument in fossil fuel divestment

Fossil fuel divestment campaigners use a variety of arguments, both economic and normative, in building their case. This is a strength of the campaign in that it can appeal to multiple constituencies, but can also pose problems if their arguments appear

unfocused or in contradiction to one another. Campaigners openly acknowledge that divestment will not have any financial impact on the companies they are targeting. The official campaign website on its Frequently Asked Questions (FAQ) page lays out the connections between the various dimensions of the campaign:

Divestment isn't primarily an economic strategy, but a moral and political one. ... the more we can make climate change a deeply moral issue, the more we will push society towards action. ... divestment builds political power by forcing our nation's most prominent institutions and individuals (many of whom sit on college boards) to choose which side of the issue they are on. Divestment sparks a big discussion and – as we're already seeing in this campaign – gets prominent media attention, moving the case for action forward. (Fossil Free, 2013a)

The lines of argument used in favor of divestment can be placed into three major categories. The first are *economic* arguments, which echo the CarbonTracker analysis about risks to the value of carbon-based investments and the necessity of divesting to protect the assets of investors. Selling fossil fuel stocks as a means of driving down the value of fossil fuel companies would also come under this heading, but is not widely used as an argument and it is admitted by campaigners that their actions will not have this effect. Second are *moral* arguments, focused on the need to take action in order to prevent catastrophic harm and summed up by Fossil Free's frequently-repeated slogan "If it is wrong to wreck the planet, it is wrong to profit from that wreckage." Third are *political* arguments, which are to do with how the existence of the campaign itself is necessary in order to build a movement to engender political change, both in terms of specific policy and broader social organization. These three dimensions to the campaign are not mutually exclusive; indeed, they are tightly interrelated and it is their strategic deployment in various contexts which accounts for much of the campaign's success. The

following sections nonetheless attempt to separate the three major arguments used by Fossil Free campaigners, and how the campaign, its opponents and the news media negotiate the tensions between divestment being positioned as an economic, moral or political strategy.

Economics

As the research on the South African divestment campaign makes clear, though divestment is at its surface an economic strategy it is working in service of larger ethical goals. The economic aspect of it is in some senses simply a means to an end but irrelevant in and of itself; a way of engaging people with the issue and building momentum for political action or wider social change. Through waging campaigns against college administrations and big oil, divestment campaigns, if successful, give a sense of unity and purpose to the fight against climate change and link individual and local-level action to broader institutional changes. Nonetheless, for economic arguments to help serve this purpose they still need to make sense on their own terms. The carbon bubble idea and the notion of unburnable carbon provides, as noted, the foundation for the divestment campaign. Based on empirical analysis and supported by a growing number of reports from economists, think-tanks, intergovernmental institutions and even a UK parliamentary committee, the carbon bubble argument makes the case that investment practices involving carbon-intensive companies should change (e.g. Leaton, 2011; Voorhar and Myllyvirta, 2013; House of Commons Environmental Audit Committee, 2014; Lewis, 2014). This does not necessarily mean divestment; and there are a number of possible different responses by investors, policymakers, regulators and

citizens which have been proposed to reduce the risk of the carbon bubble bursting. The challenge for divestment campaigners is to make the link between the two convincing enough such that they can attract people to the movement and fend off any counterarguments. It is perhaps not surprising that most of the arguments appearing in media that are against divestment are economic arguments.

There are two dimensions to economic arguments for divestment. The first relates to the goals of the campaign; that is, that divestment will have a meaningful impact on fossil fuel companies and ultimately help prevent the worst impacts of climate change. The second is targeted at the divesting institution, making the case that divestment is economically beneficial; their endowments can still achieve a good return on investment without fossil fuel stocks in their portfolio, and the inclusion of such stocks poses an unacceptable risk due to the carbon bubble.

The Fossil Free campaigners are aware of the limitations of divestment as an economic strategy. They readily acknowledge that the campaign is about more than simply removing investments for financial reasons, with the economic aspect used to support the larger mission:

At the core of the campaign is a moral argument – if it's wrong to wreck the planet, it's also wrong to profit from that wreckage – but there is also strong economic arguments [sic] to make about the need to divest from the fossil fuel industry. (Fossil Free, 2013b)

The campaigners are well-versed in both the theory and history of divestment campaigns, encouraging students involved in campus campaigns to conduct research on prior campaigns in general and at their university in particular. Fossil Free has also involved

individuals and organizations who played a role in the anti-apartheid campaigns of the 1980s. As such they recognize the role that economic arguments play in the larger campaign. Katie McChesney, divestment co-coordinator for the mid-Atlantic region, said in an interview that

we know that the money we're moving out of fossil fuels, even the divestment campaigns that we have at colleges and universities, all of the international community combined with what's happening in the US, is not going to be the amount of money that cripples the fossil fuel industry. ... Divestment is one hundred and ten percent a political punch, to stigmatize the fossil fuel industry, because we are not at a place where the fossil fuel industry can be crippled, but we do have the financial argument on our side. (Personal communication, January 24, 2014)

This sentiment is frequently echoed in statements made by campaigners. McKibben often uses variations on the line, “we know we can’t bankrupt Exxon. But we think we can politically bankrupt them” (e.g. Green, 2013; New Zealand Herald, 2013; Drajem, 2013; Rogers, 2013; McKibben, 2013; Hopey, 2013). By going out of their way to preemptively deflect potential criticisms about the efficacy of divestment as a strategy, the campaign seeks to shift attention to the political and symbolic dimensions. It is likely that they are as wary of criticism from others in the environmental movement as from those outside it. The campaign against the Keystone XL pipeline, also spearheaded by 350, has drawn skeptical responses from other environmental groups – for instance, the Breakthrough Institute’s Nordhaus and Shellenberger (2014a) argue that stopping the pipeline will have little impact on greenhouse gas emissions and that the campaign distracts from more pragmatic solutions. As with Keystone, however, the aim of the divestment campaign is broader social and political action on climate change, using a targeted campaign to advance overall aims of 350 as an organization.

The second economic aspect of divestment relates to the economic benefits potentially accruing to the institutions which divest. Even if this benefit is not their primary focus, it is nevertheless an important part of campaigners' strategy as it attempts to nullify the primary opposing argument made by universities and other bodies targeted by divestment campaigns – that divestment presents too much of a financial risk. The FAQ page on the Fossil Free website, while stressing the moral and political dimensions of the campaign, makes the case that fossil fuel companies are “risky investments” as their share price is based on unburnable carbon, and cites several reports which argue that renewable energy investments are more profitable (Fossil Free, 2013a). News coverage more commonly features the position that divestment is a necessity *despite* its potentially negative financial implications. A feature on the divestment movement in the *Chronicle of Higher Education* positions divestment as a trade-off between the social and educational goals of colleges. It quotes the president of Unity College, an institution which did divest, as saying that “even if we did suffer a little bit, it would be acceptable” (Mogilyanskaya, 2013). Campaigners, while playing down the risks to investment returns – “less than 0.005 per cent” according to one (Fenton, 2013) – almost always qualify such statements with an appeal to morality, pointing out that financial returns are not the only standard by which endowments should be judged.

The related argument, that the carbon bubble will render fossil fuel companies essentially worthless and thus harm the long-term returns on endowments, is even less prominent. It mainly appears in media coverage in the context of non-college investors such as pension funds, including articles about votes by the San Francisco and

Washington D.C. city councils on divesting their city's retirement funds of fossil fuels (McDonald, 2013; Mufson, 2013). The argument is usually associated with people from the finance industry rather than activists, who for the most part are quoted talking about the moral aspects of divestment. Op-ed pieces by campaigners sometimes make reference to the long-term risk to endowments of the carbon bubble, but it is never the primary focus. An op-ed by a divestment campaigner in Canada quotes a report warning of the dangers of the carbon bubble, and argues that "fossil fuels are no longer going to be competitive with other forms of energy and that will result in substantial financial losses" (Petrine, 2013) (though this is towards the end of the piece and presented as subordinate to moral concerns). While the carbon bubble argument is integral to the divestment movement, its financial implications – which were the primary concern of CarbonTracker's original report on the topic – are very much of secondary importance in public discourse. Its function for divestment campaigners is not to draw attention to potential future financial risks, but to make a point about the fossil fuel industry today: that by planning to burn the 80% of carbon reserves which would take the world past the two degree limit, the industry is acting in a reckless and immoral fashion and must be stopped.

One reason that campaigners must be well-versed in the economics of divestment – and be able to talk about the economic benefits – is that most opposition, at least in the portion of the campaign covered by this analysis, is on economic grounds. This makes the fossil fuel campaign somewhat different from the anti-apartheid divestment movement. As Arnold and Hammond (1994) note, there was little disagreement that action had to be

taken on apartheid; the differences came in whether to disengage totally or pursue ‘constructive engagement’ with the regime. This latter approach was initially favored by most businesses as well as President Reagan, which is (reportedly) why he vetoed legislation imposing sanctions on South Africa (Arnold & Hammond, 1994). A roughly equivalent position can be seen in the fossil fuel debate. This is the position taken by advocates of ethical investment described above, but more specifically (in this context) by those who argue that the stock portfolios of universities and public institutions can be leveraged to have a positive influence on fossil fuel companies through shareholder activism, while not harming their endowments. This is a common response of university administrations when confronted by divestment activists.

A report on divestment released by Swarthmore College, which hosts one of the most active campus divestment movements, argues that the cost to the college would be in the millions of dollars. Further, it states that divestment may have

unintended consequences. If Swarthmore were to divest, it could not participate in shareholder activism efforts, many of which have resulted in tangible progress. If engaged shareholders were replaced by shareholders without conscience on these issues, it would not deprive companies of capital, but would rather make it easier for them to maintain the *status quo*. (Welsh and Niemczewski, 2013, p. 3)

Harvard University, which has also seen one of the more active and high-profile divestment campaigns, responded to divestment activists in similar terms. Speaking to the New York Times, Harvard Governing Board members argue that divestment would hurt returns and that a better way to hold fossil fuel companies accountable would be through Harvard's proxy votes as a shareholder, with a university spokesperson adding that “the college make its ‘distinctive contributions to society’ through its ‘research and

educational activities”” (Smith, 2013). More bluntly, a University of California spokesperson states that “the primary purpose of the university's investments are to make as much money as we can for the university, for California and for its employees” (quoted in Murphy, 2013).

The argument that the withdrawal of engaged, ethical shareholders just makes it easier for companies to continue their objectionable practices may be a sound economic point, and could well be the reason that Lytle and Joy (1996) found no impact on stock prices from the South African campaign. The divestment activists, though, have no interest in changing the business practices of fossil fuel companies; it is the companies’ entire business model which they find objectionable: “there haven’t been any [shareholder] resolutions that have been able to address the core problem with the industry: the massive amounts of carbon they insist on dumping into the atmosphere for free” (Fossil Free, 2013). Furthermore, such an approach would deprive them of the mobilization aspect of the campaign, which is an essential part of their broader strategy.

Morality

By arguing that endowments should not be used to support social causes, college administrators and opponents of divestment are separating economic from moral concerns and drawing a sharp line between their institution’s financial affairs and its broader social mission. Endowments exist to support the university’s research and education, the argument goes, and anything which threatens the maximization of returns is therefore out of consideration. Clearly, however, moral considerations do come into play when deciding where (or where not) to invest. As the Fossil Free website points out,

most higher education institutions are putting a large emphasis on sustainability and environmental initiatives, and do not want to be seen to be lagging on climate change. Given their status as education institutions it is also difficult for them to completely ignore the moral dimension of their investment. The most obvious prior example is, again, the South African divestment campaign. Although it took much struggle over more than a decade, with many of the same arguments used in opposition, eventually more than 150 institutions did divest themselves of assets in companies which had business in South Africa.

Since then, there have been other, lower-profile and somewhat less controversial divestment campaigns targeting universities. Notably, a campaign against the Sudanese government's atrocities in the country's Darfur region spurred a divestment movement which resulted in at least 61 universities, along with many state and local governments and other institutional investors, selling assets in companies which had business in Sudan between 2006 and 2008 (Westermann-Behaylo, 2010; Sudan Divestment Task Force, 2008). There are a number of reasons why the Darfur divestment campaign achieved these successes in a relatively short timespan. The campaign targeted a fairly small number of companies, all involved in the country's oil production. It is straightforward to draw a line from oil revenues, Sudan's major source of income, to human rights abuses perpetrated by government forces. And the morality is a lot more obvious, the acts being carried out so horrifying that to argue against divestment is to risk the appearance of complicity. Shareholder activism and constructive engagement seems inadequate, even

inappropriate; it is difficult to ‘engage’ or ‘work with’ a regime responsible for systematized torture, rape, mass killings.

The combination of low financial stakes and immediate moral outrage made the case for divestment from Sudan a relatively easy sell. Climate change, however, is different on both of these counts. In terms of the amount of money involved, a report comparing various divestment movements finds that the total market capitalization of the four firms targeted by the Sudan campaign is around three hundred billion dollars; while for the two hundred targeted fossil fuel companies it is over four trillion dollars (Ansar et al., 2013). Fossil fuel stocks tend to perform well, and can make up a sizeable portion of investment portfolios, so divestment represents both a greater effort and financial risk. Although campaigners often stress the moral urgency of climate action – appeals to morality are the primary tactic used by divestment campaigners – climate change represents a less direct or immediate threat. Public opinion research has repeatedly shown that while people consider climate change an important issue, it comes near the bottom in rankings of important political issues and is seen as an abstract risk, distant in both time and space (Leiserowitz et al., 2014). This is not helped, of course, by the fact that responsibility for the problem and potential solutions are far from clear, and directly implicate the habits and lifestyles of most people in developed societies. These psychological and institutional barriers to climate action are in part what the divestment campaign is designed to address. What the comparison to the Sudan campaign shows is that there are moral considerations in investment decisions; that although university administrators and fund managers argue the sole purpose of endowments is to generate a

return on investment and not promote social goals, there are in fact ethical lines that cannot be crossed.

A major aim of the Fossil Free campaign is to redraw these ethical lines. The moral argument is the most prominent in the campaign materials and op-eds, and is the argument most commonly associated with campaigners in news articles. The Fossil Free website boldly states “It’s wrong to profit from wrecking the planet” (Fossil Free, 2014) and the urgency of taking action to prevent catastrophic harm is repeatedly emphasized. An important part of the campaigners’ strategy is to call into question what is usually taken for granted. Through making visible the role of institutions like universities in financing fossil fuel extraction, the divestment campaign hopes to problematize economic arrangements that are usually not subject to public scrutiny and force those responsible to take ethical considerations into account. A leader of the University of Wisconsin divestment campaign writes in an op-ed that impacting fossil fuel companies’ bottom line is “not the point,” but that when universities and elected officials “are asked to take a stand on divestment, it pushes them to take a stand on climate change” (Para, 2013). Climate change is presented starkly as a moral transgression, and the fossil fuel companies as its primary causative agents – the representatives against whom action must be taken. Thus, any practice which supports fossil fuel companies contributes to climate change is necessarily immoral. A Brown University divestment campaign leader is quoted in a news article as saying that the university “can’t ignore the dictates of science and ethics” and therefore must act to divest (Salit, 2013). Through the logic of linking

climate science to the ethics of divestment, a contested policy choice which has questionable economic impact becomes an inevitability.

A major argument used by campus campaigners is the necessity of aligning the values of universities' educational missions with their financial activities. Spokespeople repeatedly point out that it is disingenuous for educational institutions to earn money for their endowments off companies that are causing climate change while simultaneously claiming to be leading voices for sustainability. A Los Angeles Times feature on the movement sums up their position:

Student activists, however, insist that colleges need to take the moral stance. They say it is hypocritical to teach about global warming and ecological protection while investing in firms the students contend are hastening climate change by mining and drilling for fuels to be burned in massive amounts. (Gordon, 2013)

In a Toronto Star op-ed, a Canadian divestment leader writes that “building a sustainable campus that is bankrolling and profiting from climate change is a Pyrrhic victory at best” (Fenton, 2013). This argument is also made by the colleges which have chosen to divest. In this early stage of the campaign, these institutions were mainly small colleges which distinguished themselves through their environmental focus, and they place this as a key reason for why they divested. Hampshire college president Jonathan Lash, quoted in a feature in the Chronicle of Higher Education, stated that Hampshire “made a fundamental choice that our investment policies are linked to our educational policies” (in Mogilyanskaya, 2013), and the sustainability director for Unity College told the Times Higher Education Supplement that “the greening of higher education is for nothing if

we're not holding institutions responsible for what they are actually doing about sustainability" (quoted in Marcus, 2013).

Emphasizing the immorality of being associated with fossil fuel companies feeds into the larger aim of the divestment movement, which is to attack the reputation and social standing of these companies, ultimately weakening their political influence. This is clear in McKibben's initial *Rolling Stone* article, in which he singles out the fossil fuel industry as the major enemy in the fight against climate change. Campaigners state they are out to remove the "social license" of fossil fuel companies, to turn them into pariahs in the same way as has been done to the tobacco industry. The phrase 'social license' is brought up numerous times by divestment advocates. Although it is not explicitly defined, campaigners use it to refer to making the business practices of fossil fuel companies unacceptable to most people in society, such that politicians and universities would risk damage to their own reputation by being seen to be associated with them. The Fossil Free website states that the "goal of the campaign is to weaken [fossil fuel] companies' grip over our economy and politics by taking away their social license to operate in a way that is putting the planet at risk" (Fossil Free, 2013b) and to turn "Big Oil into Big Tobacco, an industry that no politician wants to be seen with" (Fossil Free, 2013c). The campaigns seek to redefine the business of fossil fuel extraction as an activity that, while not illegal, breaks accepted norms of conduct to the extent that it is a moral imperative that it must be stopped. Implied here is that corporate activity which affects the public can (or should) only be carried out with the public's consent.² McKibben (2012b) writes in an op-ed that fossil fuel companies "don't deserve the social

license our silence grants them,” and a student activist from Harvard is quoted as saying that “we would reinstate their social license when they came up with a business plan to keep global warming within two degrees” (Mufson, 2013).

The idea of a social license is frequently invoked by environmental campaigners and is an established concept in literature on corporate social responsibility. Gunningham, Kagan and Thornton (2004) argue that social obligations on businesses, the bounds within which they can act without risking a public backlash, often exceed their legal obligations. Drawing from their case studies of communities affected by environmental pollution from paper mills, Gunningham et al. write that corporations see the maintenance of their social license as important and often act beyond their legal requirements in order to convince the public that they have a right to exist. The enforcement mechanism of a social license is primarily reputation capital, and by acting to lower firms’ social standing campaigners aim to reduce their potential influence with the public, politicians and regulatory agencies. Social license is also important for policymaking, “opening fruitful possibilities for influencing corporate behavior not just directly through regulation, but also indirectly (and perhaps more powerfully) by empowering various institutions of civil society” (p. 309). The concept of social license has been adopted in recent years by the companies themselves who also attempt to ensure they can continue their business practices with the goodwill of the community.

Social license is therefore a space of contention, a space where various competing interests attempt to gain legitimacy for their actions and worldviews. *Forbes* magazine declared 2013 “the year of the social license to operate” (Klein, 2012). It is used

strategically by firms, and, as Ahluwalia and Miller (2014) point out, companies often seek to enhance their standing in the community in areas unrelated to their environmental impact – fossil fuel companies sponsoring the arts, in their example. They refer to it as “a surprisingly overt term adopted with relish by environmental criminals to explain their strategies for winning over local, national, and international communities’ acceptance and even welcome” (Ahluwalia and Miller, 2014, p. 1).

Still, if persistent social license demands from communities and campaign groups are not met, they can be translated into formalized legal requirements. This idea is utilized by both campaigners and politicians to achieve legislative goals. The Fossil Free campaign states that one of their ultimate aims is to persuade the US Congress to pass emissions-reduction laws (Fossil Free, 2013a). For his part, President Obama has on several occasions appealed to environmentalists to increase pressure on himself and Congress in order to create the political capital required for greater legislative action. In a speech at Georgetown University in July 2013, Obama supported the divestment movement and stated that “what we need in this fight are citizens who will stand up, and speak up, and compel us to do what this moment demands” and urged the audience to “remind everyone who represents you at every level of government that sheltering future generations against the ravages of climate change is a prerequisite for your vote” (Obama, 2013).

There are, however, a number of limitations on the degree to which social actors can impose their demands on companies:

First, in order to articulate social demands, social actors must be able to determine that a harm has or might well occur and must also have the organizational competence to develop and effectively articulate demands to address the harm. Second, legal and political actors must be reasonably responsive to social actors' demands; that is, they must see the demands of social actors as both important and legitimate. Finally, economic concerns often constrain the *degree* of beyond-compliance behavior firms are willing or able to undertake. (Gunningham et al., 2004: 332)

The dynamics of the divestment movement are quite different to the case studies presented by Gunningham et al., which mostly focus on interactions between businesses and a particular local community. The Fossil Free campaign is not targeting the fossil fuel companies themselves, but their investors, along with politicians and public figures who would be seen to associate or do business with them. It is not particular practices or misdeeds which are the focus of the campaign, but the entire business model of the industry. The conditions campaigners offer for a restoration of the companies' social license is nothing short of a complete transformation of everything they do. Clearly this is unrealistic, so the success of the divestment campaign rests almost entirely on external regulation of carbon emissions rather than any voluntary actions by the companies themselves. This shows the extent to which the moral argument of the divestment campaign, while the central component of their messaging strategy, depends upon the economic and political dimensions. Demonstrating that "a harm has or might well occur" as a result of fossil fuel companies' business practices requires credible articulation of the economics of divestment, and effecting change along the new moral lines defined by the campaigners requires engagement in the political process.

By defining the bounds of morality to exclude the business practices of fossil fuel companies, divestment campaigners still need to demonstrate that some kind of moral

transgression is taking place – one that justifies, or compels, the type of action they are advocating. Research into the public's attitudes towards climate change have generally found that while people are concerned about it at an abstract level, they do not see it as being an especially urgent issue or one that will affect them directly. Impacts are viewed as distant in both time and space, affecting far-off locations mainly in the future (Whitmarsh et al., 2013). Prior research into media coverage of climate change has found that this tendency to associate the issue with distant times and places is evident in reporting, when the impacts of climate change are mentioned at all. Often climate impacts are elided in routine reporting and it is taken as a given that climate change is something to be avoided without necessarily saying why (Boykoff, 2011; Howard-Williams, 2009).

This is evident in coverage of the divestment movement, with the consequences of climate change rarely explicitly articulated, and only vaguely alluded to if they are mentioned at all. Campaigners' statements make vague references to devastating impacts and impending catastrophe. When impacts are mentioned, it is most often in terms of weather events such as droughts, floods and storms. McKibben's (2012) *Rolling Stone* piece and other op-eds deal more explicitly with the consequences of climate change. Again, they mainly focus on weather-related phenomena, and put an emphasis on changes that are happening and visible now as opposed to potential future impacts. The Fossil Free website and campaign material does not put a great deal of emphasis on climate impacts. Its fossil fuel divestment communications guide again points to extreme weather as the major climate impact campaigners should talk about, connecting it to the

fossil fuel industry and the moral obligations of colleges or local governments in a “messaging triangle” (Fossil Free, 2013e). Weather is the most common impact mentioned across media forms, as the campaign attempts to reinforce that climate change is happening now, linking tangible phenomena their audience are able to witness (either directly or through the media) to the threat of climate change. The threat to humans is therefore the key point of emphasis, rather than ‘protecting nature.’ Most of the imagery used by the campaign is of people protesting, or of either clean or dirty energy sources. 350’s style guide encourages the use of images of people in action, and cautions campaigners to avoid “cliché environmental visuals” such as “leaves, polar bears, overuse of the color green – 350 needs to appeal to a much broader range of people than just traditional environmentalists” (350.org, 2014).

Presenting climate change as a moral issue is not uncommon in campaigning; in fact, it is one of the dominant ways it is communicated to the public. Al Gore famously stated in his documentary *An Inconvenient Truth* that “I don't really consider [climate change] a political issue, I consider it to be a moral issue” (Guggenheim, 2006), a sentiment he repeated in his acceptance speech at the 2007 Academy Awards. But, as Pepermans and Maesele (2014) point out, this type of framing often decouples morality from politics, depoliticizing climate change and glossing over the structural and institutional challenges which stand in the way of meaningful solutions. By elevating climate change ‘above’ politics in an attempt to bridge partisan divides, campaigners too often are reduced to advocating largely symbolic or ineffectual actions, frequently in the form of changes to individual consumption patterns which do not offer systemic

challenges. Indeed, the call to action at the end of *An Inconvenient Truth* is largely in this vein, encouraging viewers to buy energy efficient light bulbs and drive less frequently.³ Another problem with moralizing climate change is that because everyone contributes to it, campaigners risk alienating their audience by casting everyone as a sinner and contributing to the stereotype of environmentalists as humorless scolds.

The Fossil Free campaign deploys morality in a different way, linking moral urgency to political change instead of dissociating from it and setting up the fossil fuel industry as an external ‘enemy’ to be targeted. The fossil fuel industry’s influence on democratic politics is more evident in the campaign as a moral transgression than any effects of climate change itself. This approach shows the influence of the environmental justice movement on climate change activism, as the campaign highlights the injustices that arise out of the current system of social organization and advocates for systemic change along more equitable lines through a redefinition of what is morally acceptable. Rather than seeking to change individual consumption patterns or acting within the bounds of normal political process (*An Inconvenient Truth* urges people to write to their congressperson – or if that fails, run for office themselves), divestment campaigners recognize the limits of established political institutions. Of course, such an approach is not new, having been used in various forms by social and environmental justice advocates for decades. It does represent a departure from the way mainstream environmental campaigners have approached the issue, and with 350 being one of the more visible and effective advocates for action on climate change in recent years, could signal a broader shift in public discourse.

Politics

The third aspect to the Fossil Free campaign is the political, involving how the campaigns attempt to build a movement and create social change in line with their goals. There are a number of ways in which the political is relevant to divestment. One is the act of mobilizing a large number of people to take visible, public action on an issue of social importance. A second is engagement with the institutions of representative democracy to bring about legislative or policy change. And a third is the ultimate goal of the movement, the overall vision of the type of society they are working towards and which informs their more specific policy objectives.

As discussed above, the main intended outcome of the divestment campaign – and indeed of all divestment campaigns – is in building a movement around a particular cause. The acts of building a campaign, conducting petitions and protests, and engaging the public and the media with the issue are the primary focus. From a strategic viewpoint, the stated goal of persuading institutions to divest their fossil fuel holdings is simply a vehicle through which the organization can achieve greater public visibility. Campaigners’ open acknowledgement of this – their insistence that the aim of the movement is to bankrupt fossil fuel companies politically not economically; McKibben’s statement that “the fight is almost as important as the victory” (quoted in Kiley, 2013) – draws attention to the wider issue of climate change as well as deflecting counter-arguments that divestment will in itself not reduce carbon emissions. ‘Movement-building’ is at the core of 350’s mission. The first thing visible on the 350 website’s

homepage (www.350.org) is the statement “We’re building a global climate movement” in large letters and most of their other activities feed into this broader goal.

One of the things which has set 350 apart from other climate advocacy groups, and which has contributed to their rapid rise to prominence, is their use of grassroots activism on a global scale. They aim in most of their initiatives to involve individuals in their local area, but acting in concert with others around the world. In so doing they hope to overcome the apathy normally associated with climate change politics, that people feel their individual actions can have any significant impact on what is a seemingly intractable global problem. While their prior campaign events took place primarily over short time frames, such as the global days of action which involved simultaneous protests all over the world, the divestment campaign extends this approach to a series of simultaneous but localized campaigns. Divestment offers a way for individuals to be involved directly and to feel like their actions make a difference, while offering a tangible and achievable outcome, and the chance to contribute to a coordinated global effort against climate change. Tilly and Wood (2009) write of a possible split between “older styles of action and organization that sustain continuous political involvement at points of decision-making power” and “spectacular but temporary displays of connection across the continents, largely mediated by specialist organizations and entrepreneurs” (p. 122). Similarly, Beck (1992) posits that a characteristic of risk politics is ad-hoc and temporary movements coming together in response to particular risks. This campaign appears to be an effort to bridge this gap, combining displays of mass action with a longer-term commitment to political change.

It has long been a strategy of activist and campaign groups to use the news media to amplify their message, and the Fossil Free campaign is no different. In the campaign toolkit section of their website, a page entitled ‘Getting Media Attention’ stresses the importance of media attention for putting pressure on key decision makers in college administrations. It then reminds readers that

our larger goal is to use divestment to send shockwaves through the fossil fuel industry and take away their social license to operate. If colleges divest silently, without significant media coverage, our efforts won’t have the desired effect. (Fossil Free, 2013d)

The page suggests a list of news values that campaigners should consider when trying to get the attention of the media: “drama, conflict, strange bedfellows, new facts or revelations, scandal, curiosity, and all the things that make for a good story.”

So in this sense the campaign is important because it draws public attention to divestment, and hence climate change more broadly. There is much discussion in academic and policy circles over public opinion polling on climate change, usually related to the percentage of Americans who ‘believe’ that human actions are responsible. This number has been found to fluctuate depending on recent events, be they weather-related or political, and there are large differences in responses depending on party affiliation (Nisbet & Myers, 2007; Brulle et al., 2012). There is little in the way of political will for major policy action on climate change, particularly at a legislative level. As Brulle et al. (2012) found in their analysis of long-term poll trends, shifting public opinion on climate change is mainly a function of elite cues and structural economic factors. Their results indicate that media coverage, while important, is also mostly dependent on the actions of politicians, and that political polarization, with contrasting

cues coming from differing political groups, is the dominant factor in the relative lack of public concern. The differences between the two positions are tied to wider issues of economics and culture, and cannot be resolved through communication alone. Hence, Brulle et al. (2012) argue, “any communications strategy that holds out the promise of effectiveness must be linked to a broader political strategy. Political conflicts are ultimately resolved through political mobilization and activism” (p. 185).

Potential for meaningful change thus depends on climate change being seen as a political issue – political in the sense used by Mouffe (2005) and Pepermans and Maesele (2014) in that it involves agonistic debate between competing visions of social organization. Positioning climate change only in terms of science and depoliticized morality means that the institutional, economic and cultural factors which underlie climate change are not subject to public debate (Carvalho & Peterson, 2012). This often results, as DeMeritt (2006) points out, in debate that is restricted to questions of science, and those who would oppose taking action on climate change for economic reasons are left to argue their case in scientific terms. This is not, to be clear, the fault of those pushing for action on climate change, but just to note that any strategy to address what is essentially a political problem needs to include political solutions.

The Fossil Free campaign, and 350 as a whole, show through their strategy that they are well aware of the importance of politicizing climate change. This then raises the question of what their end goals are, both in the short and long term. What is the purpose of the movement they are building, if not to bankrupt the fossil fuel industry through divestment, and how do they hope to achieve it? Social movements often face tensions in

defining and articulating their goals. Especially amongst organizations which advocate for a broad societal transformation, there is frequently a desire not to be too strongly associated with a particular outcome or policy objective in the short term. Two recent examples illustrate some of these trade-offs. The gay rights movement, particularly in the US, has in recent years focused heavily on marriage equality as its primary goal. While this has been spectacularly successful in achieving its stated aims, there have been concerns in some quarters that placing marriage at the center of the gay rights movement draws attention away from other forms of discrimination faced by gay and lesbian people. And more broadly, some campaigners have argued that marriage itself is a discriminatory institution, and that emphasizing marriage works to force homosexual relationships into a heteronormative paradigm rather than encouraging wider social changes in thinking about what constitutes a 'normal' relationship (Franke, 2006). The Occupy movement perhaps represents the other side of this dilemma. While its protests against social and economic inequality resonated with many people and quickly spread globally, the movement's emphasis on changing the global capitalist order and refusal to attach itself to any concrete, short-term policy initiatives may have contributed to its fading from view (Mouffe, 2013).

The general approach to campaigning taken by 350 has utilized definable, specific goals. This is most clearly seen in the name of the organization, representing the target concentration (in parts per million) of carbon dioxide in the atmosphere which they argue is the safe level for human society. So rather than simply raising awareness or changing personal behavior, all of the organization's actions are oriented ultimately towards

reducing carbon emissions. Within this lies a set of assumptions, not always explicitly articulated, about how society should operate. The interplay between the economic and political arguments of the divestment campaign can illuminate how the organization is hoping to use divestment to achieve meaningful steps towards their overall goal of reducing the concentration of carbon in the atmosphere, if not through the bankrupting of fossil fuel companies. Action by the US government to regulate carbon emissions appears to be the major goal, though this is not mentioned especially frequently by campaigners.

Indeed, movement-building is often positioned as an end in itself. It is stated that the goal of removing the social license of fossil fuel companies is to reduce their influence in politics, but the presumable reason for this – to enable Congress to pass legislation placing limits on carbon emissions – is rarely stated outright. A campaigner for the Washington DC divestment organization writes in the Washington Post that the campaign is “intended to show elected officials and the financial sector that citizens want them to make bold decisions to protect us from the economic and physical harm that climate change promises” (Grason, 2013). Others make reference to the need to generate “political will” for action on climate change (e.g. Daigle, 2013). The Fossil Free website’s FAQ page states that Exxon could transition to being a renewable energy company, but “they’ll do it because of government regulation, not because they willingly decide to make the move ... Divestment is a clear and powerful action that helps build the case for government action” (Fossil Free, 2013a).

Most of the references to specific governmental action or policy proposals come from McKibben himself; mostly this is in the form of calls for putting a “price on

carbon.” This appears in his initial *Rolling Stone* piece, where he writes that this should happen “through a direct tax or other methods” and that we must “enlist the markets in the fight against global warming” (McKibben, 2012a). He spells out the connection between this and the divestment campaign in an interview with *Responsible Investor* magazine, also posted on the Fossil Free blog, arguing that the fossil fuel industry won’t change its practices “until we change the rules of the game and put a price on carbon and the damage it does to the atmosphere. And we can’t do that until we’ve reduced the power of the fossil fuel industry in Washington” (quoted in Gilbert, 2013). When asked what Washington needs to do, he simply responds, “They need to put a price on carbon if we’re ever going to get out of this trap we’re in.” While the Fossil Free campaign, and 350 as a whole, have a broader vision than simply passing a carbon pricing law, it is significant that legislative action through established political processes is held up as the best way of moving towards this vision, at least by 350’s leadership. Tilly and Wood (2009) write that the presence of social movements in democratic societies raises the question of whether “sovereignty and its accumulated wisdom lie in the legislature or in the people it claims to represent” (p. 13). Divestment is a subpolitical action, in that it is an intervention in the economic realm outside the bounds of traditional representative politics. However, the aim is to reduce the subpolitical power of corporations by weakening their political influence and asserting more control through representative democracy. And this is to be achieved through collective mobilization, rather than viewing democracy in terms of the individual acts of voting or writing to a politician.

It is also distinct from the ‘inside baseball’ politics of organizations such as the Environmental Defense Fund that exert influence through lobbying, political connections and the like. This type of institutionalized and professionalized environmental organization has come under criticism for being too close to those in power and working too much within the system rather than confronting systemic failings. While these organizations have been able to achieve important policy victories, they fall short in terms of the broader social transformation which McKibben and his ilk argue is required to properly address the challenges of climate change. By building a popular movement, 350 is attempting to reinvigorate environmentalism with a sense of possibility, and of the need to radically alter the business-as-usual paradigm through making political institutions more responsive to popular demands. However, as Nisbet (2012) notes, despite their different methods, the solutions proposed by McKibben and 350 are still fairly narrowly focused on policy. Moreover, the failure to achieve meaningful results in this domain has led them to “double-down in their commitment to their policy paradigm, attributing failure to the political prowess of conservatives and industry, and to a corresponding lack of grassroots pressure and moral outrage” (Nisbet, 2012, p. 50).

Quite what the social transformation envisaged by 350 and the Fossil Free campaign might look like beyond the specific legislative initiatives is often left unstated in campaign material and news coverage. McKibben certainly has ideas about it, having articulated his vision for a post-climate change society in several of his books. In his summary of McKibben’s body of work, Nisbet (2012, p. 50) suggests there may be a disconnect between this vision and that of the people who make up the movement:

I wonder how many of the people turning out to protest the Keystone XL pipeline, working on behalf of divestment, or following along on Twitter and Facebook are aware of McKibben's long standing vision of societal change ... In this pastoral future free of consumerism or material ambition, Americans would rarely travel, experiencing the world instead via the Internet, grow much of their own food, power their communities through solar and wind, and divert their wealth to developing countries.

It is not necessary, though, to accept wholesale McKibben's vision of the future and advocacy of small-scale, self-sufficient agrarian communities in order to be a part of the divestment movement or any of 350's campaigns. Given 350's emphasis on policy solutions, they are able to attract a diverse constituency of environmentalists and social change advocates who can agree on the need for popular mobilization on climate without having to commit to McKibben's specific vision of a post-climate change society. As Nisbet (2012) points out, since his first book *The End of Nature* McKibben's writing has argued for a "fundamental reconsideration of our worldviews, aspirations, and life goals, a new consciousness that would dramatically re-organize society, ending our addiction to economic growth and consumerism" (p. 3). This commitment to a reconsideration of worldviews along sustainable lines is more important than agreement on what the end result of this process might look like.

It is this commitment to social change which is common to almost everyone involved in the climate activist movement, even if they may not agree with McKibben's overall vision or politics. This was evident at the 2013 Powershift Conference, a biennial gathering of climate activists which drew over six thousand mostly college-aged people from across the USA to Pittsburgh for three days of workshops, presentations and networking. Along with an almost total focus on systemic, societal changes rather than

individual actions or insider politics, there was a heavy emphasis on linking the climate movement to both environmental justice and other social justice causes. A commonly repeated message was that climate change, civil rights, workers' rights, immigrants' rights and related causes are all facing off against a common enemy in the economic and political arrangements which are dominant in Western societies. Although there was a diversity of approaches to achieving this type of change, there was a common discontent with Western capitalism. This, obviously, is different to the CarbonTracker analysts and others who are largely concerned about the carbon bubble in the interests of preserving existing arrangements and worry about the destabilizing effect unburnable carbon could have on global financial markets.

With this comes a reconsideration of social institutions to better reflect a changed understanding of humanity's place in the world, and a shift from a society based on the pursuit of economic growth and the profit motive to one where human wellbeing is paramount. Though he is one of the leading environmental writers of recent decades, McKibben's main subject is not nature but rather "an exploration of the meaning of being human" (White, 2011, p. 110) and what it means to live in a world increasingly shaped by our own actions. In the context of his advocacy, the long-term changes McKibben advocates can be seen less as a blueprint to be followed exactly than as a signal of a commitment to systemic change. That existing institutional arrangements are failing with respect to the environment (and consequently human wellbeing) is a position common to almost everyone involved in the divestment movement. While obviously there are going to be differing viewpoints on the ultimate endpoint, this commitment to deep institutional

change is what sets the climate activism exemplified by 350 apart from other areas of climate change advocacy even when their immediate methods – such as legislative change – may be the same.

While their goals for social transformation inform the activities of campaigners, none of this is especially visible in their public advocacy or resultant media coverage. Most news articles focus only on the immediate goals of the campaign, often related to a specific institution and how successful the divestment actions are. Campaigners, both in quotes provided to the media and in op-eds published in newspapers generally, as described above, emphasize the moral dimensions of divestment. Politics, when mentioned, is related to the need to reduce the influence of fossil fuel companies on the political process and pass climate legislation. Feature articles such as those in the *New York Times* (Gillis, 2013) go into more depth about the aims of the campaigners, but this is still mainly limited to the political mobilization aspect of the campaign. Gillis (2013), for instance, writes that the campaigners “may stand to win even when the colleges say no” as a result of their forcing the issue onto the agenda of the country’s elites. The Fossil Free website similarly concentrates almost entirely on the specifics of divestment and not the wider aims of climate activism or any of McKibben’s political philosophy.

Nonetheless, aspects of McKibben’s outlook are evident in 350’s tactics. As McKibben (2010) recounts in *Eaarth*, the idea for 350’s first day of action in 2009 came from the notion of networked localism that he advocates. Rather than one large march on Washington, there would instead be “distributed political action” (p. 210), hundreds of smaller actions in cities and communities across the world, each specific to a particular

place but connected and coordinated via the internet. Their second day of action in October 2010 was called the ‘Global Work Party’ and involved groups of volunteers taking specific actions in their communities, such as installing solar panels and planting trees, again coordinated and shared online. The divestment campaign also follows this model to an extent, with relatively autonomous local campaigns operating simultaneously with support from 350 staffers such as McChesney. Interestingly, some of 350s campaigns have started to move away from this pattern. The campaign against the Keystone XL Pipeline involved several large marches on Washington, and the People’s Climate March in New York in September 2014 was the largest climate change demonstration in history with people traveling from all over the country – the type of singular, grand spectacle which McKibben argues in *Eaarth* is outdated and unnecessary.

More broadly, the divestment campaign reflects McKibben’s politics through its insistence on the need to rethink some of the taken-for-granted processes which shape how our societies interact with the natural world. By challenging investment patterns, often considered off-limits in political debates (indeed, university administrators explicitly argue that endowments should not be subject to political considerations), the Fossil Free campaign is making visible some of the ways in which such institutions and processes contribute to climate change and offering a means of changing them in line with a different set of values. Climate change, as an unintended consequence of modernity, is a result of economic and political systems working as they should – hence its seeming intractability or ‘wickedness,’ as eliminating the causes of climate change means large-scale changes to the systems which produced it. Divestment is presented as a

means by which citizens can meaningfully impact these processes, even if in a relatively small way, through intervening in the economic system which supports the continued extraction and burning of fossil fuels. The campaign takes the position that addressing climate change requires transformational social change, and a reconsideration of core social values and how these are reflected in economic and political structures.

Conclusion: Reflexivity and the political

As the idea of the Anthropocene becomes more resonant in public discourse, tensions will arise as to the appropriate role of humans in governing planetary processes and the means by which we should do so. As with the other two organizations in this study, 350 seeks to reconceptualize and reconstitute environmental politics so as to more deliberately channel environmental impacts towards beneficial ends. Where 350 differs from the other organizations is in its strong commitment to issues of social justice and inequality. Addressing climate change is not just about applying a narrow technical or policy solution to a particular problem, but an opportunity to reconsider the structural inequalities and systemic factors which are at the root of environmental risks. Systemic, structural causes and attention to disparities in risk exposure are often not apparent in public debates about climate change, which commonly position the problem as a threat to all humanity, or the planet as a whole. Meanwhile, responsibility for causing climate change is both individualized to the actions of consumers and generalized to all of human civilization – it is at once the fault of everyone and no one. Methmann (2010) argues that climate protection has become an empty signifier which allows governance organizations to reframe their existing activities in terms of climate change without changing social or

economic structures, such that they “can claim to be in favour of climate protection and stick to business as usual at the same time” (p. 345). The approach taken by 350, by contrast, sees climate change not as the inevitable outcome of modernity but as arising from an economic and social system designed to benefit particular interests at the expense of others. Their social justice-centered approach emphasizes the need to change these structural incentives; otherwise the same inequalities will be reproduced in any responses to climate change.⁴

This focus on issues of power and inequality complicates the idea of the Anthropocene. Similar to the way that much climate discourse universalizes responsibility for and exposure to environmental risks, thinking about the Anthropocene simply as the ‘age of humans’ does not take into account which humans in particular are responsible for the situation in which we find ourselves. The geophysical markers which signal the age of humans were not laid down by humanity as a whole, but as a result of political and economic systems which incentivize certain outcomes (principally, exponential growth) that were put in place by hegemonic interests in specific historical contexts. Some have argued that Anthropocene is for this reason not the best term to use to describe our current era. Sloterdijk (2015) points out that

The collective that today is characterized with terms such as “humanity,” and whose influence on Earth is described as “anthropogenic,” consists mainly of agents who have, in less than one century, appropriated the technologies developed in Europe. ... In this case one should rather speak of a “Eurocene” or a “Technocene” initiated by Europeans. (p. 327)

Similarly, Ivakhiv (2014) outlines some of the alternatives which have been proposed, which capture in different ways the economic, technological, political and ecological

links embedded in our current condition. Examples include “homogenocene”, “patriarchy”, “modernity”, and “capitalism”; though each in emphasizing certain links and relationships inevitably downplays others. Perhaps the value of a totalizing term such as Anthropocene (as with, say, ‘globalization’) is that it can be made to encompass all of these, and provides a framework through which the relationship of human socioeconomic structures to the physical environment can be discussed.

In any case, if, as Latour (2010) argues, our primary challenge is in “composing” a future in which human impact on the non-human world is acknowledged and dealt with forthrightly, these power dynamics need to be taken into account. The massive resistance faced by even modest carbon reduction initiatives demonstrates the entrenched power of corporate interests (McCright & Dunlap, 2003). And, as Methmann’s (2010) work shows, steps to address climate change will reproduce existing power dynamics unless directly challenged. As discussed in Chapter 2, this lack of attention to questions of power is one of the biggest criticisms of reflexive modernization theory and the work of both Latour and Beck. As with the Anthropocene, Beck’s concept of risk tends to universalize the impacts of environmental problems – “poverty is hierarchic; smog is democratic” as he put it (Beck, 1992). This macro-sociological viewpoint is not entirely incorrect. Climate change is inescapable in a way that income inequality is not, and will certainly affect every aspect of life if the worst effects come to pass. Nonetheless, its impacts will not be evenly or ‘democratically’ distributed. As is frequently pointed out by campaigners, populations who have the least responsibility for causing climate change are likely to suffer the worst of its consequences.

The environmental justice-infused standpoint taken by 350 insists that issues of poverty, inequality, and racial and gender discrimination are all intertwined with environmental issues, and that it is not possible to address one without taking account of the others (Smith, 2014). 350 periodically issues statements expressing solidarity with other social movements and causes such as the Occupy movement and the Arab uprisings. An email sent to supporters after the death of unarmed black teenager Michael Brown at the hands of police in Ferguson, Missouri stated that

We believe unequivocally that working for racial justice is a crucial part of fighting climate change. Communities of color and poor communities are hit first and hardest by the impacts of a climate system spiraling out of control. ... Movements for justice in the U.S. are often fractured, and powerful interests – like the fossil fuel industry – try their hardest to make those divisions wider. Choosing to stand together is one of the most important choices we can make. (May Boeve, email, 20 August 2014; see Mock, 2014)

Climate change is conceived of as a systemic social problem, rather than a scientific or technical issue to be resolved simply through policy instruments or the application of technology. The ambition of 350 is to question and ultimately reconstruct the foundational principles of social organization in late modernity, and set out a path to a new society built on more sustainable and equitable lines.

This is, in Mouffe's (2005) terms, a fundamentally political process, and involves taking on the entrenched interests which work to uphold the status quo. Pepermans and Maesele (2014) argue that climate change discourse should be evaluated according to whether it works to politicize or depoliticize debate. Whereas depoliticized discourse conceals underlying values and interests, politicized discourse aims to reveal competing sets of epistemic assumptions and relate these to alternative visions of society. The notion

of political choice is key here; a politicized discourse emphasizes the choices and decisions that need to be made in order to address the challenge of climate change, while a depoliticized discourse sees climate change as a problem to be solved through the technocratic application of scientific findings. It is important, too, that the processes of de/politicization are dynamic and “always need to be investigated at the discursive level instead of being associated with specific actors, discourses, practices, institutions, or eras” (Pepermans & Maesele, 2014, p. 228). The same individuals or organizations can adopt different strategies in different contexts, depending on their audience and perceived effectiveness of various rhetorical approaches.

Politicization of social movements or causes often has an uneasy relationship with achieving meaningful change in structures and institutions. Decreus, Lievens and Braeckman (2014), citing Mouffe’s (2013) criticism of the Occupy movement for disengaging from institutional politics and being symbolically effective but institutionally weak, point out that it can be hard to identify an adversary to oppose agonistically in a depoliticized culture. Constructing the necessary we/they distinctions is especially difficult when confronting systemic issues, such as the inequalities arising from global financial capitalism, or climate change, as the ‘real’ sources of power and decision-makers are often unclear. Responsibility for systemic risks is shared amongst all who participate in the system; in depoliticized discourse ‘we’ are all responsible for causing climate change and are equally (and individually) responsible for its resolution. Those promoting efforts to address climate change often face criticism for their individual contributions to the problem – Al Gore has been subject to many attacks for his own

carbon-intensive lifestyle, and before every UN Climate Summit there is the inevitable commentary pointing out the emissions resulting from thousands of delegates and campaigners flying in from all over the world. For Decreus et al. (2014), Occupy's construction of themselves as outside the system and their refusal to engage with democratic institutions is a way of "making society 'readable' or interpretable again in terms of we/them distinctions" (p. 147), though they concur with Mouffe that translating this symbolic effectiveness into institutional effectiveness remains an unsolved question.

The divestment campaign represents a different approach to that of Occupy. While addressing the issue of climate change at a systemic level and adopting a highly politicized discourse, the campaign also shows a willingness to engage with the democratic process. Indeed, convincing the US Congress to pass climate legislation is one of the campaign's major goals. The campaign is careful, however, not to position this legislative goal as an end in itself or as the movement's primary function. Rather, campaigners articulate an alternative vision of society based on definable yet still fairly broad values and principles. Their actions in the political realm are informed by this vision. Unlike the 'big green' organizations which aim to achieve what change they can within institutional boundaries, the divestment campaigners seek to use whatever political or financial means are available to them to advance their alternate socio-environmental paradigm. Divestment allows a push for carbon-pricing legislation to be encased within a broader critique of political and economic structures. In a sense, the campaign seeks not to achieve a legislative goal by working within the existing system, but instead to change the system through campaigning for divestment with strong climate legislation being an

outcome of this process. Divestment as a tactic has a number of advantages for this type of campaign. It allows for the mobilization of citizens at a local level across the country, in a way that lobbying Congress directly does not. The hundreds of separate campaigns targeting different institutions allow for victories to be claimed and give the broader movement a sense of momentum. And it makes visible the normally hidden or taken-for-granted relationships between societal institutions and environmental impacts, the tracing of networks characteristic of reflexive modernization (Latour, 2003).

Although the divestment campaign does for the most part adopt a politicized discourse, their major arguments are made in moral terms. Mouffe (2005) sees appeals to morality as a symptom of a depoliticized culture, as the we/they opposition is constructed in terms of good versus evil, rather than as political opponents who can engage agonistically. The Fossil Free campaign's moral arguments, though, are for the most part not deployed in this way. As discussed above, the campaign does fit the notion of politicized debate described by Pepermans and Maesele (2014) in presenting contrasting alternative visions for society. Opposition to action on climate change is constructed as a symptom of a broken political system that is lacking the voice of ordinary citizens. The actors on which the campaign is trying to exert pressure are principally university administrators and politicians, with the aim of shifting important power relations regarding climate change. This is to be achieved principally by reducing the influence of fossil fuel companies in the political process and excluding them from positions of influence in societal institutions and policymaking.

There are, as Mouffe (2005) notes, always parties and viewpoints that are excluded from agonistic debate, but she argues that this process of exclusion should be envisaged in political, rather than moral, terms: “some demands are excluded, not because they are declared to be ‘evil’, but because they challenge the institutions constitutive of the democratic political association” (p. 122). This is essentially the objection that the campaign has to fossil fuel companies, that through their disproportionate influence on the political system they are undermining democracy and self-determination. By removing the legitimacy of fossil fuel companies to act in a political capacity, the campaigners are, in their view, working in the interests of democratic ideals. Mouffe (2005) continues that the “drawing of a frontier between the legitimate and the illegitimate is always a political decision, and that it should always therefore remain open to contestation” (p. 122). Fossil Free, and 350’s larger campaign efforts, are attempts to redraw the boundaries of what is acceptable in politics, excluding corporate interests from the process, including a popular voice and taking account of environmental externalities which are normally ignored.

As discussed in Chapter 2, Mouffe (2005, 2013) is very critical of the reflexive modernization approach advocated by Beck, Giddens and, to a lesser extent, Latour. Her criticism is based on their advocacy for a post-political consensus-driven approach and the lack of attention to questions of power and inequality. While this critique is valid (and necessary), the reflexive modernization approach is nonetheless valuable, particularly when it comes to environmental politics. A central tenet of reflexive modernization is the challenge to the legitimacy of institutions brought about by the crises for which they

themselves are responsible. As McCright and Dunlap (2010) point out, social movements are a prominent agent of reflexivity as they “help raise public consciousness of unintended and unanticipated effects of the industrial capitalist social order, while providing a vision of the social transformations needed to address them” (p. 104). This social transformation, for the reflexive modernization theorists, is not just a shift in the hegemonic terrain of politics, but a more fundamental reinvention of social organization – a “new modernity,” as Beck (1992) would have it. With this comes the formation, or at least the recognition, of new political configurations where the non-human world becomes an essential and unavoidable actor in human affairs.

As both Latour (2003) and Beck, Bonss and Lau (2003) argue in their outlines of reflexive modernization, boundary-making is a key aspect of the shift from simple modernization. Specifically, the labor of boundary-making between nature and society becomes more visible, and while the artificiality of boundary-making is recognized such boundaries are nonetheless seen as necessary and are institutionalized. In this context, the divestment campaign’s actions are more than simply redrawing the line around what is politically acceptable. The associations between financial processes and environmental impacts have always existed but, as Latour (2003) points out, the ‘constitution’ of industrial modernity meant that they were usually hidden. The campaign seeks to incorporate new entities into the political process and create new links and alliances between various actors, making explicit the connections between climate change and the economic practices of institutions people interact with on a daily basis. This echoes Latour’s (2003) contention that risks are best conceptualized as networks. Social

movements become important in highlighting particular connections and thus attempting to not simply erase the nature/society distinction but to reassemble elements in new ways in order to create a different politics.

The importance of social movements is recognized by Beck (1992; 2009), although he conceptualizes this in terms of ‘risk publics,’ seemingly ad-hoc groupings which coalesce around particular risks before dissipating. This is often how environmental activism has functioned, particularly in response to more localized threats, with more lasting commitments to a particular identity-group or political affiliation not as evident. The divestment campaign and the climate activist movement more generally show evidence of this tendency, using their wide reach through digital media to mobilize large numbers of people for particular events. But underlying this is a deeper affiliation to social transformation – or at least this is the hope and intention of movement leaders.

Through their emphasis on social and environmental justice, and exhortations that the climate movement is part of the same movement as those addressing race, class and gender inequalities, leaders aim to build broad coalition that can mobilize around various issues but is united in pushing for a fairer, more just and more democratic society. Importantly, it is a movement based on confronting power and bringing a politicized discourse to public debate on climate change. While most approaches to tackling climate change have focused on working through the political system, divestment attempts to bring democratic accountability to a domain from where it is normally absent. Citizen power is seen as a means to disrupt the activities of fossil fuel companies, trying to give

citizens some measure of control over processes which affect the entire planet but from which environmental concerns are systematically excluded.

¹ Maxwell and Miller (2012) use the figure of the accountant as the basis for an ideal green citizen, being as they are privy to the environmental costs of production.

² This aligns with Dewey's (1927) conception of the public as "all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for" (p. 16).

³ It may seem odd to use Al Gore as an example of depoliticization – as a former Democratic politician he is a deeply polarizing political figure, and his position as the most high-profile public figure associated with climate change was criticized by some advocates for deepening rather than bridging partisan divides on the issue (e.g. Nordhaus and Shellenberger, 2014b). And as Pepermans and Maesele (2014) make clear, in other venues he has called for more expressly political action on climate.

⁴ The charge of using climate change as an empty signifier to advance a pre-existing agenda is also deployed by conservatives against climate activists. They see climate change simply as a smokescreen to radically transform society along leftist lines. The climate activists, of course, do not deny the second part of this and see it as central to their mission, but their lessened focus on the impacts of climate change and explicit political agenda leaves them open to this critique. Nisbet (2014b) argues that this may harm efforts to address climate change as it only deepens polarization on the issue.

Chapter 5 – Ecomodernism: The Breakthrough Institute's theology for the Anthropocene

Introduction

Many different factors have been blamed for the inadequacy of societal responses to climate change: fossil fuel companies and corporate interests delaying action to protect their bottom lines; a political system ill-equipped to handle a problem of this magnitude and complexity; the human mind's difficulty in comprehending a problem which is largely invisible in everyday life, and where the worst effects seem as if they'll befall somebody else at some other time. Advocacy groups have been working to overcome such challenges for decades, and yet progress often appears frustratingly slow. Perhaps some of the blame should lie with environmental advocacy groups themselves: could they have got it massively wrong in their efforts to inform and persuade the public of the dangers of climate change? Such was the assertion of Michael Shellenberger and Ted Nordhaus in their widely-distributed and controversial 2004 report *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World*. Internal self-critique is not new to environmentalism, with various factions within the movement competing for ascendancy and periodic broader challenges, such as from the environmental justice movement. By declaring environmentalism dead, Shellenberger and Nordhaus argued for a new way of conceptualizing the relationship between humans

and their environment, one which took into account the centrality of risks to social organization and the outsized impact of humans on the planetary ecosystem.

This chapter examines the publication of *The Death of Environmentalism* and the reactions to it both inside and outside the environmental community, and what the varying responses signal about how environmental politics is being reconceptualized to address the threat of climate change. I then track the subsequent work of Shellenberger and Nordhaus and their think-tank The Breakthrough Institute in their attempts to create a new politics for the Anthropocene. Their efforts culminated in the emergence of ‘ecomodernism,’ a worldview which embraces humanity’s role in shaping the planet and enthusiastically embraces technology, innovation and modernization as the path to environmental salvation.

Table 3: List of primary sources for chapter 5

Source Type	Details	Number
Book	<i>Break Through</i>	
News sources	Newspaper reports	7
	Newspaper op-eds	12
	Magazine reports	8
	Magazine op-eds	11
	<i>Grist</i> forum responses	18
	<i>Total</i>	56
BTI publications	<i>Death of Environmentalism</i>	
	<i>An Ecomodernist Manifesto</i>	
	<i>Breakthrough Journal</i> articles	36

The Death of Environmentalism

The US environmental movement in the early 2000s was not in a good place. Though public support for environmentalism remained high at an abstract level, concrete progress on pressing environmental issues was hard to come by. The Kyoto Protocol (an international effort to reduce carbon emissions) had been abandoned by the US, Congressional efforts to regulate greenhouse gas emissions through cap-and-trade had foundered, and a Republican-controlled Presidency and Congress were busy enacting anti-environmental legislation including a bill to allow oil drilling in the Arctic National Wildlife Refuge. It was in this context that Shellenberger and Nordhaus' (2004) report *The Death of Environmentalism* emerged. Shellenberger and Nordhaus had worked as strategists and consultants for a variety of progressive and environmental organizations, conducting policy and public opinion research. Shellenberger, who holds a masters degree in Cultural Anthropology, had founded Communication Works, a public relations firm dedicated to progressive causes; he had also been involved in several labor and business-ethics initiatives, as well as a campaign to put Martin Luther King on the US twenty-dollar bill. Nordhaus was, at the time, a vice-president of American public opinion research firm Evans/McDonough where he specialized in environmental, land use and transportation issues (ibid; Polonsky, 2005).

The report *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World* (henceforth DoE) was released in October 2004. It was initially presented to the 2004 meeting of the Environmental Grantmakers Association, an umbrella group which brings together philanthropic foundations with an interest in

environmental causes. In writing the report, Shellenberger and Nordhaus interviewed 25 people whom they identified as leaders in mainstream American environmental organizations about their perspectives on the state of environmentalism, where they thought the movement was headed, and how best to address challenges such as climate change. The report articulates what Shellenberger and Nordhaus see as the major problems with environmentalism and, while stopping short of concrete recommendations, outlines a radically different approach to campaigning which they say is necessary to match the scale and complexity of the problems faced by society. The report was subject to much criticism and dissection within the environmental community; what follows is a brief recapitulation of the key arguments in the DoE followed by an account of the broader debate.

The major thesis of DoE is that modern environmentalism, despite its past achievements, is “no longer capable of dealing with the world’s most serious ecological crisis,” namely: climate change (Shellenberger & Nordhaus, 2004, p. 6). Their focus is exclusively on American environmental organizations, and in particular (though they do not say this explicitly) the large, ‘mainstream,’ policy-oriented groups. They do not concern themselves with activism, community-based groups or environmental justice – though their later work also harshly criticizes this branch of environmentalism, as will be discussed below. Arguing that American environmental leaders focus too much on policy “without giving much thought to the *politics* that made the policies possible” (p. 7; emphasis in original), DoE excoriates the “policy literalism” that characterizes the mainstream approach to dealing with environmental challenges. While this method may

have been successful in the environmental battles of the 1970s – when almost all of the federal environmental legislation still in use today was enacted – they contend that a new way of thinking is now needed in order to create a movement capable of enacting the massive societal transformation necessary to properly address climate change.

The environmental movement of the 1970s, Shellenberger and Nordhaus claim, was based on a paradigm which viewed the environment as something which needed to be defended and protected. Deconstructing the category of ‘the environment,’ they question the assumptions they claim are shared by environmental groups that

a) the environment is a separate ‘thing’ and b) human beings are separate from and superior to the ‘natural world’... If one [instead] understands the notion of the “environment” to include humans, then the way the environmental community designates certain problems as environmental and others as not is completely arbitrary. (p. 12)

The authors go on to complain that defining environmentalism in this way leads advocates to focus on narrow, technical solutions to be enacted through enlightened policy-making, ideally with bi-partisan support. Public support is built through messaging and framing strategies targeted at particular constituencies. While large numbers of Americans express support for environmental legislation, this support is shallow and fleeting, and for the most part does not affect how people vote and does not rank high in perceptions of importance amongst public issues. Environmentalism is reduced to just one special interest amongst many, competing for attention and political support against other causes and unable to overcome industry and conservative opposition through its uninspiring technocratic policies.

After providing examples of environmental policy defeats on climate legislation and vehicle fuel efficiency standards, DoE concludes the failure of environmental leaders to take politics into account when devising solutions is holding the movement back. Environmental groups consistently misunderstand the nature of their opposition, who will not be won over by policy proposals or appeals to rational self-interest. Environmentalists, Shellenberger and Nordhaus (2004) argue, “are in a culture war whether we like it or not” (p. 10), a battle over the core ideas and values which define the direction of society. What is instead needed is a renewed focus on politics over policy, a set of values through which advocates can articulate an inclusive and hopeful vision of the future. Any specific proposals should be located within this set of values and “must be evaluated not only for whether they will get us the environmental protections we need but also whether they will define the debate, divide our opponents and build our political power over time” (p. 27). A key element of this is uniting the various factions and interest groups of the political left towards, having them all work together for a common purpose, as well as recognizing the linkages between the environmental, labor, civil rights and other movements rather than competing with them for attention and resources. The aim is to get back on the offensive and build a “true, values-based progressive majority in the United States” (p. 27) rather than responding in a defensive and piecemeal way to individual environmental challenges.

One of the authors’ key arguments is that focusing too much on specific environmental problems in isolation allows the opposition to elevate the frame that environmental policy will result in economic harm, whereas talking about the benefits

and opportunities creates a sense of purpose and meaning. As an example they refer extensively to the Apollo Alliance, a coalition of business, labor and environmental organizations which advocated for an Apollo Program-scale effort to transform the country's energy system. As well as an array of policy proposals, the Apollo Alliance was intended to unite various interest groups around a shared set of values and a clear vision for how society should be organized. This shared vision and sense of purpose are vital, Shellenberger and Nordhaus (2004) argue, and environmentalists would be wise "to tap into the creative worlds of myth-making, even religion, not to better sell narrow and technical policy proposals but rather to figure out who we are and who we need to be" (p. 34).

Reactions to The Death of Environmentalism

The report attracted a lot of attention, and no little controversy, both in the environmental movement and in broader progressive circles upon its publication. Although released in October 2004, most of the reaction and commentary came in the wake of the November 2004 US elections. With the Republican Party occupying the presidency and increasing their majority in both houses of Congress, there was much soul-searching on the left as to how to counter a conservative movement that was very much in the ascendance. Shellenberger and Nordhaus' vision for a reinvigorated progressive politics played into this context, and the report was widely discussed by progressives outside of the environmental movement. Nonetheless, there was much discussion amongst environmentalists, who had failed to see any political progress

despite public opinion seemingly being in their favor, as to whether Shellenberger and Nordhaus had identified the right causes and were proposing the right solutions.

It took several months for the report to enter the broader political sphere. A search of the Lexis-Nexis database for the phrase “death of environmentalism”, or references to Shellenberger and Nordhaus, returned 38 relevant newspaper and magazine articles (20 from newspapers and 18 from magazines and trade publications) from the time of the report’s release in October 2004 until the end of 2006 when coverage of it largely ceased. There were no news articles referring to DoE from 2004, and it was not until February 2005 that news organizations began making reference to it. Environmental news website *Grist*¹ was a major forum for discussion of DoE, referred to by several of the newspaper articles addressing the report (e.g. Barringer, 2005; van Sickler, 2005; Pedersen, 2005). The report had been much-discussed within environmental organizations and networks in the months after its publication (*Grist*, 2005a) but most of this discussion was not public. In an editorial, *Grist*’s staff explained their rationale for their attention to DoE and the concerns it raised:

It’s not enough for the leaders of the environmental movement to discuss these issues in closed-door meetings and the privacy of their offices, or via email and listservs. The debate over environmentalism’s current health and future prospects deserves a wide airing, open to voices rarely heard in the boardrooms of big green organizations. (*Grist*, 2005a)

Grist republished DoE in January 2005 and followed this with responses from a range of voices in the environmental community between January and May 2005. Eighteen of these responses are accessible and were included in this analysis (see Table 3).

Rejection of the DoE thesis

Some reactions to DoE refute Shellenberger and Nordhaus' entire argument, making the case that there is little wrong with environmentalism and that any issues are relatively minor and certainly do not necessitate its death. These are mostly seen in the responses in the *Grist* forum, which featured perspectives from within the environmental movement, whereas media coverage tended to be either news articles reporting on the controversy or opinion pieces generally in favor of the position of DoE. Sierra Club Executive Director Carl Pope, who was interviewed for DoE and quoted approvingly in the report, wrote a scathing six-and-a-half-thousand word response, published by *Grist* in January 2005. He takes particular issue with DoE's claim that environmentalism is no longer capable of dealing with climate change, arguing that "by mingling the issue of the need for deeper and more effective global warming strategies with an ill-thought out assault on environmentalism, Shellenberger and Nordhaus are likely to create defensiveness, not receptivity; resistance, not movement; backlash, not progress" (Pope, 2005a). This backlash was evident in several of the other pieces posted on *Grist*.

Martin Kaplan, an attorney and advisor to environmental foundations, writes that Shellenberger and Nordhaus "are arrogant, self-indulgent, and wrong in blaming perceived failure on those who have sought change, rather than on those who have opposed it" (Kaplan, 2005). He does not acknowledge any lack of progress on climate change, and views any questioning of environmentalists' tactics as a distraction from confronting anti-environmental forces. Most other responses are less directly oppositional, recognizing the need for debate while still rejecting key elements of

Shellenberger and Nordhaus' arguments. As part of a series of responses from mainstream environmental organizations published by *Grist*, National Environmental Trust president Phil Clapp disputes the claim that mainstream environmentalism has failed in dealing effectively with climate change. He argues that climate change does not, as Shellenberger and Nordhaus claim, represent a paradigm shift, but is "the same dynamic that we had on acid rain protections in the 1980s" (Clapp, 2005) and that it simply needs to work its way through the policy process.

The environmental movement's ideological positioning

Of environmental leaders who engage with the report, there are two main (and mostly mutually exclusive) criticisms: the first that environmental organizations are already forming alliances with relevant progressive groups, the second that they should not align themselves solely with liberals and should reach out to conservatives. Several environmental leaders make the point that much of what DoE proposes is already underway, particularly in terms of building connections with other sections of the progressive community. Dan Carol, a board member of the Apollo Alliance (which as noted was referenced extensively in DoE as an exemplar of a potential way forward) distances the Alliance from Shellenberger and Nordhaus' approach.² He points out that there is much more going on at a local level than DoE recognizes, and argues that the "'debate' really comes down to a difference in philosophy about how to catalyze change: Do you catalyze change by creating destruction, or by showing the way?" (Carol, 2005). Carol echoes the concerns raised by Pope that the good ideas in DoE will be drowned out by overheated reactions to its confrontational tone, arguing that "you can't be both a

provocateur and a movement builder” (Carol, 2005). Greenpeace USA executive director John Passacantando, quoted in a *New York Times* feature about DoE, takes a similar line, noting that Shellenberger and Nordhaus have “fascinating data” but “they put it in this over-the-top language and did it in this in-your-face way” (in Barringer, 2005).

The contention that environmentalism needs to align itself entirely with progressivism or liberal causes to have any meaningful impact is one of the main points of disagreement fomented by DoE’s publication. William Peterson, a columnist for the *Weekly Standard* magazine, argues that environmentalism has been unnecessarily taken over by left-wing activists, and that “the actual needs of environmental protection come second to that agenda” (Pedersen, 2005). A key conclusion of DoE is that environmentalists need to become more expressly political and should join with other progressive causes to advance a unified, compelling vision for social transformation. Shellenberger and Nordhaus (2005) reinforce this in an essay in *The American Prospect*, a liberal magazine, arguing that this environmental vision needs to be injected into contested political space if it is to have any impact – otherwise, it risks becoming

an idea that everyone is for but nobody understands. The notion that social-change omelettes can be made without breaking political eggs is a fantasy that needs to die along with the notion that dealing with global warming could ever be ‘above politics.’

Several representatives of mainstream environmental groups and funding organizations make the case that the environmental movement is better served by reaching across traditional political divides and engaging with conservatives on issues of mutual agreement. In a dialog published on *Grist* between four representatives of environmental foundations – the audience at which DoE was originally targeted – two of

them reject the idea that environmentalists should articulate a set of values, and should instead continue to build alliances between ideologically disparate stakeholders (*Grist*, 2005b). Hooper Brooks of the Surdna Foundation argues that environmentalism is more diverse and expansive than DoE recognizes, and “often doesn’t go by the name environment — rather, community vitality, economic development and competitiveness, equity and fairness” (in *Grist*, 2005b). While similar to Shellenberger and Nordhaus’ point that what is considered to be ‘environmental’ needs to be rethought, Brooks takes the position that environmental values need to be inserted into multiple diverse contexts rather than only being associated with progressivism. Rhea Suh of the Hewlett Foundation concurs, noting their success in “organizing ranchers, hunters and anglers, Native Americans, and business leaders to speak for things like responsible energy development, accountable land management, even wilderness” (in *Grist*, 2005b). While not endorsing DoE’s specific viewpoint, Town Creek Foundation director Stuart Clarke is in some ways critically aligned when he warns against an “ideologically transcendent environmentalism,” arguing that becoming increasingly inclusive may mean becoming politically ineffective if environmentalists do not take a stand on important ideological battles. Suh counters that “we shouldn’t pass up the areas where there may be opportunities out of fear that we are losing touch with our ideological underpinnings” (in *Grist*, 2005b).

Other articles which include arguments along similar lines, particularly those in newspapers, do not engage as deeply with the issue. Nonetheless, disputes over the political positioning of environmentalism point to irreconcilable differences in opinion

over what it means to advocate on behalf of the environment. These tensions of course did not emerge with DoE, having been a feature of environmentalism since its emergence in the 1960s. However, its publication and the subsequent discussion marks a key moment in which they were articulated and renegotiated publicly at a time of uncertainty for many within the movement. As Clarke of the Town Creek Foundation notes, “aside from the sensationalism of its ‘slaying the fathers’ rhetoric, much of the essay’s traction comes from the fact that it was dropped into a discursive vacuum” (in *Grist*, 2005b). This is noted by Shellenberger and Nordhaus (2004) in DoE, who write that environmentalism has a “lack of feedback mechanisms” (p. 12) which results in the conceptual foundations of the movement not being subject to scrutiny from within.

Three paradigms of environmentalism

There are a wide variety of issues, organizations and activities that are covered by the term ‘environmentalism.’ This diversity and inclusiveness have been among the strengths of the movement, but also contributes to its lack of a cohesive direction and strategy. One of the key tensions within this is among three different ideas or paradigms of environmentalism, each with their own discourses and assumptions about human nature-relations. One, most closely associated with the conservation movement, is that environmentalism is about protecting nature; that wild spaces free from human encroachment need to be preserved. The second, emerging mainly in the 1960s, is that environmentalism means reducing the harmful impact of human activities on the physical environment; addressing direct human impacts on the physical environment such as pollution. These are broad characterizations, and there are overlaps between them and a

multitude of different ways in which they are put into practice. As Shellenberger and Nordhaus (2005) amongst many others have demonstrated, these categorizations are easily deconstructed and break down under close scrutiny. Still, these ideas – the conservation and pollution paradigms – have informed environmentalism since the 1960s, and are often combined in public discourse surrounding particular environmental issues. In the case of climate change, an issue caused by human society and with huge potential human impacts is often presented in terms of its effects on nature. Polar bears, for instance, became an iconic symbol of the problem, and communication addressing the need for climate actions often justifies it in terms of the need to ‘protect the planet’ or ‘save the earth.’ The global, existential risks generated by modern societies necessitate a third paradigm, which deals with the unintended consequences or negative externalities of industrial societies and involves systemic issues, like climate change, that cannot be successfully addressed after the fact but instead must be prevented via active change in industrial and social practices.

The idea of protecting wild places is less inherently political than addressing risks, in the sense that it does not call into question the legitimacy of social institutions. For this reason debates over the political positioning of environmentalism in the wake of DoE – whether to align with progressive causes, or to engage across the political spectrum – breaks down along these lines. The majority of those advocating for an environmentalism which is not tied to a wider political position do so using language which speaks more to a discourse of protecting nature. A Philadelphia Enquirer feature on how environmentalism is uniting left and right states that “conservatives such as pro-

gun hunters and antiabortion evangelicals are making common cause with pro-abortion-rights, gun-control liberals on land conservation, pollution, and endangered-species protection” (Nussbaum, 2005). League of Conservation Voters president Deb Callaghan is quoted as saying these alliances amount to a “rebirth of environmentalism” as opposed to a death, though all of the examples cited in the piece related to land preservation, water quality and locality-specific issues. There is a brief reference to support for renewable energy in otherwise conservative states, but climate change is not directly mentioned. Similarly, Environmental Defense Fund president Fred Krupp is quoted in a *San Jose Mercury News* feature saying that environmentalists need to engage with “hunters, fishermen, ranchers” who could be allies. This is followed by a quote from Montana governor Brian Schweitzer stating that the face of environmentalism should look “more like a rancher than a stockbroker ... more like a Montana family, less like a commune from San Francisco” (Rogers, 2005).

The question of whether environmental groups should advocate from a particular political position arises from disagreements, or perhaps confusion, over the goals and purpose of environmentalism. Shellenberger and Nordhaus do not argue in DoE that environmentalists should align with other progressive groups simply because environmentalism is a left-wing cause, but rather that for environmentalism to succeed it need to articulate a clear set of values. This is necessary in order to gain political capital and political success at a societal level, rather than at the level of localized environmental problems or specific issues. As the DoE authors argue in a response to the controversy in *The American Prospect*, the major problem with environmentalism is conceptual rather

than strategic: “the fact that every two years a moribund environmentalism marries itself to a moribund liberalism in an effort to elect Democratic candidates is part of the problem” (Shellenberger & Nordhaus, 2005). Seen in this light, debates over which particular groups environmentalists should deal with are missing the point, which is that the “way we [as environmentalists] conceptualized the problem analytically was getting in the way of what we needed to do politically.”

Critics of DoE from mainstream environmental groups by and large do not engage with broader questions over what environmentalism is and what it should be, focusing instead on framing and modes of action. Much of this is oriented towards increasing identification with environmental groups or participation in campaigns. Building alliances with Republicans and pig-hunters is, from this perspective, worthwhile, as it widens the range of domains in which ‘the environment’ becomes socially relevant. And such an approach can be and often is successful in addressing environmental problems, particularly at a local level. Issues of global risk such as climate change are, however, categorically different, and addressing them means confronting issues of power, inequality and distribution of resources – for which a depoliticized consensus-building approach is inadequate to bridge intractable ideological divides. Most of the responses from mainstream groups do not address this conceptual level. ‘Environmental issues’ are for the most part implicitly defined as those with which environmental organizations are currently concerned. In calling for the death of environmentalism, the Shellenberger and Nordhaus do not really mean to kill it as much as to reconceptualize it as both a movement and a set of strategies, to place boundaries around it that make clear that it is

more about deeper human-nature relationships than about waste-cleanup triage or protection of some rare species of owl.

Their point is that traditional environmentalists do not adequately deal with underlying structural issues, i.e. what is *causing* environmental problems. There is nothing especially politically contentious about this claim, as it speaks mostly to a split in what environmentalism *means* within the competing and overlapping paradigms of risk, pollution and conservation. Conservation-oriented groups, for instance, promote an apolitical vision that is seen in articles which advocate engaging with conservatives to protect the natural world. This gesture towards negotiation reveals a tension in what it means to advocate for ‘environmental’ issues – a key part of DoE that is not really engaged with by respondents except in a dismissive way, even as they demonstrate through other writing that cooperative negotiation across ideological lines can be a major factor in successful campaigns. This tension is often implicit, rather than directly stated, and leads to people of similar intentions talking past each other unproductively.

Environmentalism without environmentalists

While most mainstream environmental groups expressed skepticism if not outright hostility towards DoE, there was some significant support for its conclusions from those less closely affiliated with the environmental movement. Some of this is from conservative organizations or publications who for the most part use the report’s publication as an excuse to wheel out familiar stereotypes about environmentalists while not substantively engaging with its arguments. Two op-eds in the conservative magazine *The American Spectator* both quote Shellenberger and Nordhaus’ line that

“environmentalism is just another special interest” in their attacks on environmental groups and climate science. David Hogberg quotes DoE after mocking a celebrity-studded Earth Day event promoting sustainable living. Arguing that “only the mega-rich, like movie stars, can afford such a lifestyle,” he sarcastically applauds the inclusion of “noted economist, pro-skateboarder and X-Games gold medalist” Danny Way and Anthony Kiedis, the “highly-respected climatologist and lead singer for the rock band Red Hot Chili Peppers” (Hogberg, 2005). In the subsequent issue, a lengthy piece claiming to debunk climate change science argues that “environmentalism is now a \$1.5 billion industry” which needs to promote bogus claims to make money – and then claims, referring to Shellenberger and Nordhaus, that “[s]ome environmentalists have begun to echo the complaint that they are a special interest” (Bethell, 2005). Lawrence Solomon, writing in Canada’s *Financial Post*, also quotes the “special interest” line before lamenting that today’s environmentalists are “ideologues who care more about socialism and political correctness” than solving problems (Solomon, 2005). In each case Shellenberger and Nordhaus’ credentials as environmentalists are invoked to undermine environmentalism as a whole by showing turmoil within the movement and portraying environmentalists as self-interested and elitist, and then using this to advance the ideas of environmental-science skeptics.

Viewpoints which are so openly hostile to environmentalism are relatively rare in coverage of DoE and are found mainly in conservative publications. More common are those which express support for the general principles of environmental protection while distancing themselves from environmentalists, and supporting the calls in DoE for a new

approach. Staking out a middle ground between environmental groups and their adversaries, and positioning both sides as extremists, allows Shellenberger and Nordhaus (and their allies) to appear as the sensible, rational alternative – a strategy which has served them well since as I will subsequently show. The president of the Trust for Public Land, Will Rogers, notes in a *San Jose Mercury News* feature that “the term ‘environmentalist’ has a lot of baggage” (Rogers, 2005) and the reactions to DoE clearly show there is a constituency for an ‘environmentalism without environmentalists’. Many of the same stereotypes about environmentalists as deployed by conservative commentators are used here, although often with a self-reflexive awareness that they are stereotypes. The *Philadelphia Inquirer* columnist Jane Eisner (2005) writes that “According to stereotype, environmentalists are socialistic, pantheistic tree-huggers”; an Associated Press feature about DoE opens by stating that “large numbers of Americans seem to dismiss them [environmentalists] as tree-hugging extremists” (Chea, 2005); Nicholas Kristof (2005) in his *New York Times* column explains that DoE is “provoking a civil war among tree-huggers.”

Like the conservative arguments, however, these perspectives do not engage deeply with Shellenberger and Nordhaus’ specific proposals beyond their attacks on the environmental movement. For the most part they enthusiastically quote the criticisms of environmental organizations in DoE but offer little commentary regarding the remainder of the essay. This is accompanied by a call for a more rational environmentalism which can appeal to people across political ideologies – which is largely out of step with DoE’s call for environmentalists to form part of a muscular, values-based progressive coalition.

Kristof's column, appearing in March 2005, was the first op-ed in a major newspaper to address DoE (the *New York Times* had published a feature story on the controversy the previous month) and is cited in several of the other responses. He writes that environmentalists are "the left's equivalents of the neocons: brimming with moral clarity and ideological zeal, but empty of nuance" and that "reasonable environmentalists – without alarmism or exaggerations – are urgently needed" (Kristof, 2005). He allows that there are "many sensible environmentalists, of course, but overzealous ones have tarred the entire field." Kristof does not elaborate on what this reasonable and sensible environmentalism should look like, but his main preoccupation is the way environmental advocates talk about issues – in his view being too confrontational and alarmist – rather than their political orientation or particular point(s) of advocacy. There is a similar dynamic in Eisner's column, which appeared the following week. She writes that "Shellenberger and Nordhaus get it. They understand that effective environmentalism requires vision and values, not alarmism and sentimentalist nature-love" (Eisner, 2005). While echoing DoE in calling for a values-based movement, much of the column is about potential alliances between environmentalists and conservative Christians which conflicts with the DoE authors' advocacy for a strong coalition of the left.

Whether intentionally or not, Shellenberger and Nordhaus found an audience who wanted to hear that action could be taken on climate change without the association with left-wing politics or radical activism. To wit, DoE appears to have gained traction within the business community during 2005. There is some published evidence of it being frequently emailed and discussed, though there are fewer traces of its impact in public

discourse. For instance, a December 2005 editorial in trade magazine *Waste News* states that “an automotive company executive recommended this article to others and me months ago” and recommends DoE as “the perfect Christmas gift for that environmentalist in your life” (Lafferty, 2005). Lafferty enthusiastically summarizes Shellenberger and Nordhaus’ criticisms of the environmental movement – “too narrow, wrong-headed and out of touch with the mainstream” but reduces the remainder of their proposals to a “simple shift in marketing and politics.” These remarks show not only how environmentalism is often perceived by those without the movement, but also how the DoE, and the authors’ status as environmentalists, gives those same people a focal point to latch onto even if they don’t agree (or engage in any substantive way) with the nuances of Shellenberger and Nordhaus’ argument.

The Environmental Justice movement on environmentalism’s death

The absence of an environmental justice perspective is one of the major differences between the coverage of *The Death of Environmentalism* in news media and that on *Grist*. The concerns and viewpoints of poor and marginalized communities and people of color are excluded from almost all media coverage and commentary – as they are in DoE itself. The only mentions of environmental justice are in the special issue of *American Prospect*, which contains reflective and analytical pieces more along the lines of those found on *Grist* than the other media coverage. An article in the Rhode Island newspaper *Providence Journal* about a speech made by the Sierra Club’s Carl Pope reports that he acknowledged that “demographic groups that are underrepresented in the [Sierra] club may have the most at stake in environmental decline – for example, he said,

the poor tend to live in the most polluted neighborhoods” (Gudrais, 2006). Though a central concern of environmental justice, Pope’s remarks were about the Sierra Club’s failings in this area and not the work which is being done by environmental justice advocates.

On *Grist*, by contrast, environmental justice was a major theme of the contributions. Seven of the eighteen articles written in response to DoE are written by environmental justice advocates or take as their primary focus the relationship of DoE to the environmental justice movement. Most of the other articles at least mention environmental justice or related concerns. It was *Grist*’s stated aim to broaden the debate over the future of environmentalism, and diversity is listed prominently in the site’s editorial outlining the key issues they hoped to address in their forum on DoE:

At a time when the nation’s ethnic and gender balance of power is shifting, the environmental establishment remains composed largely of middle- and upper-class white dudes, and focused mainly on issues they deem important. An environmental agenda set by a more diverse constituency might give greater voice to class and race issues, urban issues, and regional and local issues. (*Grist*, 2005a)

The environmental justice-focused responses critique both DoE and mainstream environmentalism for their exclusion of marginalized voices. The pieces vary in the extent to which they target each, with some taking aim at Shellenberger and Nordhaus for failing to incorporate these perspectives in their remaking of environmentalism, and others celebrating the death of a movement which has failed them.

Criticisms of DoE for its narrow scope were common and present in almost all of the environmental justice-themed articles. This is pithily summarized by two activists

who note that while Shellenberger and Nordhaus “managed to piss off a lot of mainstream environmentalists by declaring their irrelevance, [they] pissed off a bunch of other groups for not even acknowledging their existence” (Chang & Kano, 2005). Shellenberger and Nordhaus’ justification for their analytical focus on large, well-funded national environmental organizations was that these groups attract almost all of the funding directed to environmental causes and have the biggest impact on shaping environmental priorities (and ultimately policy). Nonetheless, several authors state that by ignoring large parts of environmentalism, the conclusions and recommendations reached by DoE would necessarily be inadequate. Environmental justice advocate Ludovic Blain argues that for this reason DoE is “at very best, incomplete,” and the fact that the report “only focused on white, American male-led environmentalism meant that the fatal flaws of that part of the environmental movement infected the critique itself” (Blain, 2005). Similarly, environmental health campaigner Swati Prakash expresses skepticism as to whether Shellenberger and Nordhaus’ vision, which “operates on a national level and seems dominated by white men who already enjoy leadership positions, is sufficiently different from the old guard to avoid the many other pitfalls of old-school environmentalism” (in *Grist*, 2005c). That this narrow cultural positioning was also true of many of those reacting to DoE did not go unnoticed. Torri Estrada, another environmental justice campaigner, notes that while DoE “critiques the narrow frame of environmentalism ... the paper and ensuing debate suffer from a lack of diverse voices in this ostensible autopsy of the environmental movement” (in *Grist*, 2005c).

Despite the lack of recognition of environmental justice in DoE, the positions expressed in the report have much in common with the founding principles of the environmental justice movement. This is also noted by several of the responses on *Grist*, with Prakash writing that “for many frontline environmental-justice activists and organizers, these insights are neither new nor particularly profound” (in *Grist*, 2005c) and Chang and Kano (2005) similarly stating that “for communities of color and the environmental-justice movement, the critique Shellenberger offers of the mainstream national environmental movement is nothing new.” Both Prakash and Blain (2005) point out that the major critiques of environmentalism in DoE echo the widely-disseminated letters sent by environmental justice activists to mainstream environmental groups since 1990, and the 17 Principles of Environmental Justice which emerged from the National People of Color Environmental Summit in 1991. Both the letters and the principles contributed to the emergence of a movement for environmental justice, and place a heavy emphasis on the linkages between the environment and human wellbeing (Pezzullo & Sandler, 2007). While DoE does not specifically foreground issues of race and class, its expansive definition of environmentalism and insistence that environmental concerns are fundamentally linked to economic and labor issues as well as general social wellbeing have clear parallels to environmental justice. As Blain writes,

Clearly, we all agree that there should be a broader movement. And we did not, as Nordhaus and Shellenberger write, have to go to the conservatives to learn it. We already have a movement positioned to build a multiracial progressive agenda that democratically represents the environmental interests of communities. (Blain, 2005)

Ted Nordhaus, in an interview with a *Grist* reporter, justifies the focus on mainstream environmental groups and large funding agencies because they are the ones “deciding how to spend tens of millions of dollars annually. ... They are deciding where this movement is going, where the resources are going” (in Little, 2005a). Given Shellenberger and Nordhaus’ later antipathy towards the environmental justice movement (discussed further below), distancing themselves from the more ‘radical’ elements of environmental activism is likely also a strategic choice to appeal to a more centrist audience.

Nonetheless, because of this similarity in the critique made by Shellenberger and Nordhaus to the principles of the environmental justice movement, several authors express support for DoE’s aims of remaking the environmental movement and aligning with a broader progressive vision. While the blindspots of DoE are criticized, the opportunity for debating the future of environmentalism is roundly supported, with little of the defensiveness of mainstream organizations. Chang and Kano, reporting from an environmental justice conference, find that in contrast to the uproar DoE caused in mainstream environmental circles “there was little argument about the shortcomings of the national environmental establishment and the weak state of the movement” (Chang and Kano, 2005). Orson Aguilar, director of social justice organization The Greenlining Institute, writes of his frustration with the Sierra Club and other mainstream environmental groups for prioritizing the protection of nature at the expense of promoting economic opportunity for low-income communities. He concludes that while

there are many who feel sadness and anger that environmentalism is dead, I am optimistic that in dying, environmentalism might give birth to a new politics that offers a better future to both my community and the planet. (Aguilar, 2005)

There is particular support for the idea that environmentalism writ broad should place more emphasis on the connections between environmental protection and social wellbeing. Several writers argue that this orientation is better suited for addressing climate change. For Thompson Smith, director of a Native American environmental organization, the “project of building a more sustainable society is ultimately inseparable from the project of building a more just society” (in *Grist*, 2005c). He adds that

This is arguably less true in dealing with the narrower issues that the ‘big greens’ have traditionally addressed: regulation of pollution, preservation of land, etc. It is perhaps more true when we are dealing with the bigger issues that now threaten the entire globe, such as global warming.

From this point of view, the environmental justice movement is better suited to dealing with climate change than mainstream environmentalism. In a report entitled *The Soul of Environmentalism* (Gelobter et al., 2005), released by liberal think-tank Redefining Progress and republished on *Grist*, the authors emphasize the environmental movement’s emergence from the civil rights activism of the 1960s. Environmentalism, by this reading,

was a radical and innovative departure from the conservation movement that preceded it. And in almost every way, the politics and innovations of the early environmental movement derived directly from the same era’s fight for black power and racial justice. (Gelobter et al., 2005, p. 10)

The environmentalism as practiced by large organizations is therefore a departure from the movement’s original purpose. Integrating the social into mainstream environmentalism, and in particular issues of race and class, is to reconnect the movement with its ‘soul,’ which is “tied deeply to human rights and social justice, and

this tie has been nurtured by the Environmental Justice and Sustainability movements for the past 20 years” (p. 6). Indeed, the early environmental movement of the 1960s drew heavily on civil-rights and student activist movements, and concerns about social justice and human wellbeing were at the forefront of environmentalism into the 1970s (Rome, 2013).

The vision of environmentalism presented by the environmental justice advocates is almost wholly anthropocentric; one in which the human and natural worlds are inextricably linked and where improving human wellbeing is the central concern. This aligns closely with Shellenberger and Nordhaus’ position that the distinctions environmentalists make between what counts as an ‘environmental’ problem and what does not are largely arbitrary, and supports the criticism that mainstream environmental groups prioritize preserving nature at the expense of local communities. Aguilar (2005) writes that from his community’s perspective environmentalists seemed to care more “about preserving places most of us will never see” and “do not talk about the importance of a living wage or affordable housing because, we are told, these are not environmental problems.” Prakash likewise agrees with DoE in that one of the environmental movement’s major weaknesses has been “allowing environmentalism to be framed as somehow about preserving the rights of nonhuman elements of our world (like ‘climate’) at the expense of people’s basic needs” (in *Grist*, 2005c). Along with being anthropocentric, this commitment to human wellbeing and social concerns is also unavoidably political. *The Soul of Environmentalism* writes about finding common cause between environmentalism and anti-war advocacy, gay marriage, and anti-capitalism, and the

promotion of communitarian values over individualist (Gelobter et al., 2005). This is manifestly different from the nature- or pollution-focused environmentalism which might be amenable to conservatives, and reflects a shift towards reconsidering the relationship between humans and nature and defining the values upon which the new world of the Anthropocene will be built.

The Death of Environmentalism and the birth of climate activism

Shellenberger and Nordhaus were not the only ones dissatisfied with the state of the environmental movement in the mid-2000s. Bill McKibben, at the time still known only as a writer rather than an activist, was also searching for new approaches to confronting climate change. McKibben is quoted in news stories and wrote several op-eds related to DoE. Although he does not for the most part directly engage with Shellenberger and Nordhaus' arguments, his contributions show both the commonalities and points of divergence between what would later emerge as the climate-activist and ecomodernist discourses.

As a scholar-in-residence at Middlebury College, McKibben had taught a seminar entitled 'Building the New Climate Movement,' which culminated in a conference in late January 2005. Called "What Works: New Strategies for a Melting Planet", the conference brought together scholars, activists and advocates – including Shellenberger and Nordhaus – to discuss ideas for rethinking the politics of climate change. McKibben (2005a) wrote daily summaries of the conference for *Grist*, and the event served as a news hook for the first stories about the DoE controversy for the *New York Times* (Barringer, 2005) and the Associated Press (Rathke, 2005). Like Shellenberger and

Nordhaus, McKibben talks frankly about the lack of success on the part of the environmental movement in addressing climate change. In his dispatch for *Grist*, he writes that the “U.S. has wasted the 15 years since climate change emerged as a real problem. Its environmentalists have failed to make measurable progress on the greatest environmental challenge anyone’s ever faced” (McKibben, 2005a). Rathke’s (2005) report also quotes both McKibben and Shellenberger stating that environmentalists had “failed” to achieve anything meaningful, and both are presented as being on the same side of the issue.

The presentation given by Shellenberger and Nordhaus at the conference outlined more of their public opinion research on American values, making a case that the country had become increasingly conservative and that progressives need to embrace core values which would appeal to the majority of the public. According to McKibben’s (2005a) summary of the proceedings, the “bad boys of American environmentalism” largely succeeded in winning over an initially skeptical audience:

they’d pissed off a good many in the crowd with their paper’s no-holds-barred attack on the big enviro groups. But when they plugged in their PowerPoint, they had the goods. ... one could sense the audience, almost against its will, agreeing.

The idea that the assumptions and practices of environmentalism are outmoded and that an alternative vision needs to be created is based on the premise that climate change represents a different type of challenge than previous environmental issues. This willingness to upend the traditions of the environmental movement and build a replacement based on a positive vision was important both to McKibben and his emerging circle of climate activists involved in the climate-change activist organization

350 (which several members of McKibben's Middlebury seminar went on to co-found), and Shellenberger and Nordhaus' own Breakthrough Institute.

The differences in the positive vision to which the new climate movement must aspire were already in evidence, however. McKibben (2005b), writing in the *Philadelphia Inquirer* in August 2005, describes the split between "a robust environmental movement taking on the relatively simple problems of old-fashioned pollution and a weak one getting nowhere on preventing the collapse of the planet's stable climate." He notes that the new movement must tackle fundamental questions of politics, economics, and "what makes for a secure, satisfying individual life," concluding that "[i]f it has success, it won't be environmentalism any more. It will be something much more important." This last quote is cited approvingly by Shellenberger and Nordhaus (2005) in their article in *The American Prospect*. They put it in terms of an "aspirational politics," as opposed to one that "[tells] Americans what they can't have and can't be without ever telling people what they can have and can be" (Shellenberger and Nordhaus, 2005). For McKibben, however, the new movement will be a "force that dares to actually say out loud that 'more' is no longer making us happier, that the need for security and for connection is now more important" (McKibben, 2005c). While similar in their desire for a new type of movement based around strong values and a positive message, Shellenberger and Nordhaus differ in their rejection of any constraints on wellbeing or quality of life, and their embrace of human potential and technology to achieve this.

The publication of DoE and the surrounding controversy marked a significant moment for environmental discourse in the US. Whether intentionally or not, the report tapped into a widespread sense of unease within environmentalism and liberal politics more broadly, exacerbated by the political landscape of the time with conservatives in the ascendency. As Shellenberger and Nordhaus (2005) commented a year after DoE's publication: "We expected controversy. What we didn't expect was that the essay would become a projection screen for the hopes and fears of the broader progressive movement." While mainstream environmental groups were understandably defensive about the attacks on their strategy, the widespread discussion and qualified support from activists and environmental justice advocates shows the level of dissatisfaction with the direction of the movement. While environmentalism's 'death' was (willfully) overstated, the reactions its preemptive eulogy stirred up indicated that Shellenberger and Nordhaus' call for a new environmental paradigm were warranted. They would attempt to advance this cause over the subsequent years.

Break Through and the creation of a new politics

'The Death of Environmentalism' deliberately did not propose any firm plan as to how the vision of a progressive, values-based movement might be achieved. This attracted some criticism from the report's interlocutors, though in an interview with *Grist*, Nordhaus states that they resisted suggestions to "provide specific prescriptions because we wanted to begin a discussion and dialogue, not suggest we had all the answers" (in Little, 2005a). In 2005 Nordhaus and Shellenberger were already working on a book, provisionally titled *The Death of Environmentalism and the Birth of a New Aspirational*

Politics. It was eventually published in 2007 under the title *Break Through: From the Death of Environmentalism to the Politics of Possibility* (Nordhaus & Shellenberger, 2007), though the paperback edition was subtitled *Why We Can't Leave Saving the Planet to Environmentalists*. The shifting titles provide a clue to the major aims of the book: to expand on DoE and give greater depth to the idea of a post-environmental politics, and for Nordhaus and Shellenberger to further distance themselves from environmentalists and the environmental movement. The book is in two parts. The first, 'The Politics of Limits,' further critiques the failings of environmentalism and extends this critique to the environmental justice movement. The second, 'The Politics of Possibility,' outlines a vision for a more expansive progressive politics based on unleashing rather than limiting human potential and embracing humanity's role as the dominant force on the planet.

Having ignored the environmental justice movement in DoE, Nordhaus and Shellenberger devote a chapter to it in *Break Through*, and they are no kinder to it than they were to mainstream environmentalism. Far from acknowledging any conceptual or philosophical similarities as expressed by some of the respondents on *Grist*, Nordhaus and Shellenberger deride environmental justice as "interests within interests" (Nordhaus & Shellenberger, 2007, p. 66). They argue that environmental justice as practiced "has won no significant new environmental laws or any major civil rights legal challenges" (p. 68) and focuses too narrowly on issues of toxic waste and air pollution which are not a high priority for, nor a unique threat to, the wellbeing of people of color. Further, Nordhaus and Shellenberger claim that environmental justice has made environmentalism smaller, not larger, due to the racially-focused and complaint-based strategies which they

say typify the movement. They cite a lack of evidence of “intentional discrimination” against poor or minority communities and a simplistic understanding of the “large, complex, and deeply rooted social and ecological problems” (p. 68) which lead to social inequality. These deeply rooted social problems are not seen by advocates as ‘environmental’ and are therefore ignored – the same critique DoE leveled against mainstream environmentalists.

As discussed above, many of the environmental justice activists who responded to DoE do put economic issues at the center of their approach and emphasize the connections between poverty, health, and the environment. Nordhaus and Shellenberger (2007) briefly acknowledge this at the end of their chapter, noting that there are signs of a more expansive environmental justice movement evolving where groups “that were once focused strictly on air pollution are today advocating jobs, health care, and the kinds of urban development that lead to livable communities” (p. 88). However, the generally negative attitude towards environmental justice aligns with their strategy of positioning themselves as the rational, moderate alternative to radical agitators. The improvements in air and water quality in poor neighborhoods are, they argue, largely thanks to 1970s legislation such as the Clean Air Act which was “passed with the intention of protecting *all* Americans” rather than to serve the “race-based strategies” of environmental justice campaigners (p. 83; emphasis in original). While Nordhaus and Shellenberger’s position does emphasize the importance of political contestation in achieving progress on climate change, their aversion to interest group campaigning leads them to reject any strategies which highlight social inequalities. The outcome of this is a discourse which often does

not examine power structures or the vested interests which seek to maintain the status quo.

The book also continues the critique of mainstream environmental organizations, and with it begins to build the case for a post-environmental politics based on the embrace of human ingenuity and technology to purposefully shape the planet for the better. Environmentalism is constructed as dismal and negative, obsessed with ‘fall’ narratives in which humankind’s sins against nature must be punished and in which “environmental virtue [is] equated with a kind of self-denial” (Nordhaus & Shellenberger, 2007, p. 124). Drawing on Thomas Kuhn, they argue that the reigning environmental paradigm based on limits and sacrifice must be rejected:

overcoming global warming demands something qualitatively different from limiting our contamination of nature. It demands unleashing human power, creating a new economy, and remaking nature as we prepare for the future. (p. 113)

Though they do not employ the word ‘Anthropocene,’ which was not in common usage at the time, Nordhaus and Shellenberger embrace the notion that humans are the dominant force on the planet and that politics should be reconfigured based on this reality. They write that the “issue is not whether humans *should* control nature, for that is inevitable, but rather *how* humans should control natures – nonhuman and human” (p. 135; emphasis in original) and conclude that “whether we like it or not, humans have become the meaning of the earth” (p. 272). This is the foundation of Nordhaus and Shellenberger’s theory of ecomodernism, which they have continued to develop through the work of The Breakthrough Institute in the years since 2007.

The conceptual roots of ecological modernization

The Breakthrough Institute under the leadership of Shellenberger and Nordhaus continued to develop a vision for a post-environmental politics. Along with a loosely affiliated network of scholars, thinkers and journalists, the Breakthrough Institute (henceforth: BTI) publishes a mixture of wonkish policy analysis and more conceptual political theory. Supporters of this perspective have come to increasingly adopt the label ‘ecological modernization’ and later ‘ecomodernism’ to define their outlook. This culminated in April 2015 in the release of *An Ecomodernist Manifesto* (Asafu-Adjaye et al., 2015), a statement of principles put forward by eighteen authors (twelve of whom, including Shellenberger and Nordhaus, have ties to the BTI) to “affirm and to clarify our views and to describe our vision for putting humankind’s extraordinary powers in the service of creating a good Anthropocene” (p. 7). The concept of ecological modernization dates back at least to the 1980s (Dryzek, 2005; Christoff, 1996), and heavily informs the BTI’s ecomodernism. One of the central unresolved tensions of the earlier ecological modernization, whether to address environmental challenges through minimally-disruptive technocratic processes or more radical social upheaval, is also present in the BTI’s work. The following sections examine the conceptual roots of ecological modernization, how these lead into the development and key proposals of ecomodernism, and how the tensions inherent in turning the tools of modernity against modernity’s consequences manifest in the BTI’s public advocacy. I will use the term ‘ecological modernization’ to refer to the earlier/more general discourse, and ‘ecomodernism’ to refer to the position adopted by Shellenberger and Nordhaus and their allies.

The term ‘ecological modernization’ is not used by Nordhaus and Shellenberger in *Break Through*, though the argument they lay out speaks clearly to a commitment to embracing rather than rejecting modernity. Their ‘politics of possibility’ is based on the idea of “overcoming,” a term which is used frequently in the book. This notion rejects what they see as the traditional environmentalist idea that humans should retreat in the face of the ecological crises they have caused in deference to some ideal of a pristine, pre-modern nature. Rather than retreating, humanity should advance, celebrating the good that has come from modernization rather than lamenting its problems. The same commitments to ingenuity and technology that built the modern world will in turn be used to solve the problems they create. The book concludes with the sentiment that

In overcoming oppression and deprivation – predators, hunger, disease – we have given birth to a new world. It is a world at once beautiful and terrible. And this world, too, we shall overcome. (Nordhaus & Shellenberger, 2007, p. 273).

While technological development is central to their aims, this is in essence a political project, aimed at remaking the institutions of modernity through emphasizing a different set of values.

This is consistent with the earlier discourse of ecological modernization. For Dryzek (2005), ecological modernization is “a restructuring of the capitalist political economy along more environmentally sound lines” (p. 167), in such a way that decouples economic growth from environmental harm. Hajer (1995) distinguishes it from earlier forms of institutionalized environmental politics which were principally legislative ways of controlling the emission of substances into the environment. Pollution, under this type of regulatory regime, “was not generally recognized as a structural problem” and could

be “contained using *ad hoc*, and *ex post* remedial measures” (p. 25). By contrast, ecological modernization does see environmental problems as structural, but “assumes that existing political, economic, and social institutions can internalize the care for the environment” (p. 25). For Hajer, whose case studies mainly involve European countries and international institutions, the ecological modernization paradigm replaced the older pollution regulation framework during the 1980s. This is very different to the situation in the United States, where the majority of environmental regulation – including on climate change – is to this day carried out within the framework of 1970s-era legislation such as the Clean Air Act, the Clean Water Act, and the National Environmental Policy Act. Indeed, Dryzek (1995) points out that the countries where ecological modernization had taken hold – he lists Germany, Japan, The Netherlands, Finland, Norway, and Sweden as exemplars – all have corporatist political-economic systems where decision-making is a consensual, co-operative process between government, industry, labor, and civil society. This is in contrast to the more adversarial policy-making system of the US.

The proposals put forward by Shellenberger and Nordhaus in DoE and *Break Through* presented a strong challenge to American environmentalism, still focused on the pollution paradigm, while much of their approach would not have been unfamiliar to European environmentalists. Their rejection of the pollution paradigm accords with ecological modernization’s commitment to “holistic analysis of economic and environmental processes rather than piecemeal focus on particular environmental abuses” (Dryzek, 2005, p. 169). The Apollo Alliance and other calls for partnerships between government, industry and labor are also characteristic of ecological modernization

discourse, as is the insistence that environmentalists adopt a more moderate and less radical position in order to be included in decision-making processes. (Dryzek notes that with the exception of Germany, none of the six exemplar countries have strong radical environmental movements.)

The seemingly moderate stance of ecological modernization leads to one of the central tensions within the discourse. While outwardly compatible with the institutions of capitalism and existing political-economic structures, ecological modernization contains the potential for a more radical transformation. Realigning political institutions along more ecological lines can open the door to deeper, more systemic changes once the limitations of capitalism vis-a-vis the environment are acknowledged. The discourse is deployed in different ways. In his summary and review of literature up to the mid-1990s, Christoff (1996) makes a distinction between ‘strong’ and ‘weak’ versions of ecological modernization. Strong ecological modernization stresses “the transformative impact of environmental awareness on civil society and the public sphere, and on the institutions and practices of government and industry” (p. 488) and “points to the potential for developing a range of alternative ecological modernities” (p. 496). The weak version is primarily technocratic, “a rhetorical device seeking to manage radical dissent and secure the legitimacy of existing policy while delivering limited, economically acceptable environmental improvements” (p. 488). Important here is the degree of reflexivity present in the discourse; the tension is whether the institutions of modernity are uncritically deployed in solving environmental problems, or whether such institutions are themselves transformed as their role in creating ecological crises is recognized.

The various theoretical conceptualizations of reflexive (ecological) modernization developed by Hajer (1995), Beck (1992; Beck et al., 2003), Giddens (1994), Latour (2003) and others, while differing in certain details, have in common the notion of increased public participation in decision-making regarding risks. The experts, elites and governments are no longer to be trusted, as processes governing the direction of modernization are opened up to citizens. This is at odds with the weaker, more technocratic version of ecological modernization, more commonly deployed in policy-making, where technological development and rational, science-based decision-making are the primary paradigms. Buttel (2000) argues that, while similar, Beck's notion of reflexive modernization cannot serve as a theoretical basis for ecological modernization. This is primarily due to Beck's emphasis on subpolitics and social movements in restructuring the state, while ecological modernization (as Buttel conceptualizes it) stresses that environmental gains "can be achieved without radical structural changes in state and civil society" (Buttel, 2000, p. 62). As a think-tank bridging the academic and policy spheres, the BTI draws from many of the aforementioned scholars, but also has to appeal to the technocrats and walk a fine line as it addresses key tensions in how radical it appears, and role of public opinion in their efforts to influence decision makers.

One feature which distinguishes ecological modernization from other environmental discourses is its positivity. Buttel (2000) argues that "ecological modernization has become attractive as a concept because it provides alternatives to the pessimistic connotations" of other forms of environmentalism (p. 63). Rather than emphasizing the destruction of the natural world or impending catastrophes for human

society, ecological modernization focuses on solutions and the capacity of societies to overcome any of the problems they have created. Instead of turning away from modernity or decrying the impact that it has had on the world, there is a “renewed belief in the possibility of mastery and control, drawing on modernist policy instruments such as expert systems and science” (Hajer, 1995, p. 33). As discussed above, this positive focus aligns closely with the perspective of Shellenberger and Nordhaus, who defined themselves in opposition to what they saw as the pessimism endemic to environmentalism. Their argument that the “solution to the unintended consequences of modernity is, and has always been, more modernity” (Shellenberger & Nordhaus, 2012) echoes Buttel’s (2000) summary of ecological modernization’s worldview in that “the problems caused by modernization, industrialization, and science can only be solved through more modernization, industrialization, and science” (p. 62). The optimism of ecological modernization also functions, as Dryzek (2005) notes, as a “discourse of reassurance” in which “no tough choices need to be made between the present and the long-term future” (p. 172). Particularly in its weaker forms, this can simply serve to justify the status quo and existing institutional arrangements. The challenge for those who agree with Shellenberger and Nordhaus is to make certain that this impulse towards reassurance does not lead to apathy of action but rather is channeled into a positive confidence that change is not only possible but achievable.

Faith in modernity

Shellenberger and Nordhaus, along with others associated with the BTI, further developed and articulated their vision of ecomodernism, principally through publications

on the BTI website along with occasional features and op-eds elsewhere. The BTI website publishes a variety of technical and policy analyses on topics such as renewable energy, urban development, agriculture and transportation, along with broader articles on humans' relationship to nature. Though there are sometimes dialogues and disagreements between authors, almost all pieces accord with the general ecomodernist position of increasing technological development, energy use and economic growth. This section analyzes publications on the BTI website, focusing on those which are more conceptual and outline a view of human-nature relationships. Dryzek (2005) identifies the key implicit metaphor of the earlier ecological modernization discourse as that of a 'tidy household,' efficiently maximizing wellbeing while minimizing waste. The metaphors and rhetorical devices deployed by the BTI are quite different, however. Three important metaphors which appear in much of the BTI's output are the ideas of modernization as religion, as evolution, and as creative destruction.

As a think-tank, the BTI is concerned primarily with disseminating ideas, and their political proposals are for the most part at the level of defining a worldview or orientation towards modernity. In *Break Through*, Nordhaus and Shellenberger (2007) criticize environmentalists for "treating nature and science too much like a *religion*" while "environmentalism doesn't work enough like a *church*" (p. 201, emphasis in original). Comparing weakly-held environmental views to evangelical Christianity, they argue that environmentalism needs to speak to what makes people happy and fulfilled in order to create "a politics powerful enough to transform the global energy economy" (p. 205). The work of Shellenberger and Nordhaus, and the BTI more generally, has moved

away from questions of individual psychology and movement-building since the publication of *Break Through* and more towards broader institutional and policy matters.

As discussed above, technology and development always played an important role in Shellenberger and Nordhaus' proposals, and they make this explicit in a 2012 essay entitled 'Evolve: The Case for Modernization as the Road to Salvation.' The piece continues the critique of environmentalism as a religion, in their view a hypocritical 'ecothology' which claims to reject modernity while benefiting from modern comforts. Typical of BTI's output, developed-world environmentalists are the primary target. In contrast to environmentalists who position themselves as fighting against entrenched power structures, in Shellenberger and Nordhaus' (2012) telling it is environmentalists themselves who are the "ruling elites [who] espouse beliefs radically at odds with their own behaviors." Ecotheology, "like all dominant religious narratives, serves the dominant forms of social and economic organization in which it is embedded." Environmentalists "[preach] antimodernity while living as moderns" and prescribe how poorer countries should develop while not holding themselves to the same standard.³

In contrast, Shellenberger and Nordhaus offer a different vision, based on a faith in human ingenuity and technology and an embrace of the endless cycles of creation and destruction which accompany the processes of modernization. They continue to position themselves in opposition to ecotheology, the traditional world view of environmentalism, nevertheless they intentionally put their alternative argument in religious terms:

Putting faith in modernization will require a new secular theology consistent with the reality of human creation and life on Earth ... It will require replacing the antiquated notion that human development is

antithetical to the preservation of nature with the view that modernization is the key to saving it. Let's call this 'modernization theology.' ... Where the ecological elites see the powers of humankind as the enemy of Creation, the modernists acknowledge them as central to its salvation. (Shellenberger & Nordhaus, 2012)

Acknowledging that environmental risks are caused by humans and their technologies, they insist that the only option is to keep moving forward. We should accept as a matter of faith the processes of endless change that come with modernization, taking the good with the bad, knowing (or believing) that the positive unintended consequences will outweigh the negative. In contrast to the environmentalism-as-church proposal from *Break Through*, the modernization theology presented here is mostly at a conceptual level, a worldview or ideology rather than a means of engaging people's dreams and desires. After setting up a conflict between ecological elites and developing-world poor, modernization theology speaks to a universal "we" – the ecological problems *we* cause can continually be fixed by the technologies *we* create. While environmentalists are criticized for their individual attitudes and behaviors, individual humans are absent from the solutions proposed by Shellenberger and Nordhaus (2012) with technology presented as the savior of the environment.

The BTI's ecomodernism places a heavy emphasis on technology and technological development. Shellenberger and Nordhaus (2012) point out that technological development has always been central to human civilization, and that while some object that technology brings with it unintended consequences, "life on Earth has always been a story of unintended consequences." The new problems caused by technology, they write,

will largely be better than the old ones, in the way that obesity is a better problem than hunger, and living in a hotter world is a better problem than living in one without electricity.

This version of ecomodernism is not entirely technocratic. The heavy focus on technology is driven by the conviction, informed by values of care and compassion, that humans must continue to engineer the Earth in order to improve the quality of human existence. So while in favor of technology, the worldview of the BTI's ecomodernism does not see scientific rationality as a guiding principle but separates technology from science. To break the political impasse in climate politics the solution is “not more climate science but rather a different set of remedies” (Nordhaus & Shellenberger, 2011), in the form of intensive technological development guided by strong values. An article by Science Studies scholar and BTI fellow Daniel Sarewitz (2012) makes the claim that the increasing emphasis by liberals on scientific rationality in political decision-making is “displacing the politics of liberal values” and has “alienated [liberals] from one of the most powerful tools for creating a more equitable society: technology.” The focus on risks caused by technology and diagnosed by sciences has, Sarewitz argues, led to “a reverence for science that increasingly, and with ever-greater precision, documents the problems associated with a technology-dependent society” while ignoring the immense social benefits technological advances can bring. The process of technological development is not, in this view, value-neutral or outside of politics. Nordhaus and Shellenberger (2012) critique environmentalists for ignoring politics, imagining “carbon pricing to be the pure policy expression of unadulterated science.” Scientific rationality must “incorporate, rather than dismiss, other ways of knowing.” While acknowledging

the role of culture and politics in the social outcomes of technology, Nordhaus and Shellenberger caution that this should not lead to a rejection of the process of technological development which, they claim, has been integral to humans' evolution as a species.

It is this process of technological advancement writ broad, rather than any specific implementation, which the ecomodernists place above politics. Though fundamental to modernization, Shellenberger and Nordhaus (2012) situate technology as a more primal force in human evolution, writing that our "technologies have not only been created by us, but have also helped create us" and have also created the environment in which we live. Their argument is that this process needs to continue, that humans must continue remaking the earth with our tools and remake our societies and ourselves in the process. Awareness of humanity's impacts should not put a halt to our transformation of the planet, they argue; rather we must act with greater purpose and take responsibility for any consequences. Shellenberger and Nordhaus' (2012) deployment of evolution is used in both technological and biological senses, with the two merging as we develop technologies which shape the not only environments in which species – including humans – evolve, but also "creat[e] new habitats and new organisms, perhaps from the DNA of previously extinct ones." They draw in support of their argument on the work of Bruno Latour, who served as a fellow of the BTI in 2011 and had previously expressed his support of Shellenberger and Nordhaus' mission (Latour, 2008). In an essay for the *Breakthrough Journal*, Latour (2012) writes that recognizing the consequences of modernization should not mean abandoning modernization, but reflexively integrating the

consequences into our politics. Drawing on his previous work (Latour, 1993), Latour (2012) argues that the mistake of industrial modernity was imagining that technological mastery over nature meant emancipation from it, when in fact it means further attachment:

The goal of political ecology must not be to stop innovating, inventing, creating, and intervening. The real goal must be to have the same type of patience and commitment to our creations as God the Creator, Himself. And the comparison is not blasphemous: we have taken the whole of Creation on our shoulders and have become coextensive with the Earth.

While the default mode of industrial modernity was to deploy technology without regard for its consequences on the world, this new approach would see the same spirit of innovation, but with unexpected consequences “*attached* to their initiators and ... followed through all the way.”

The commitment to continuing cycles of innovation and transformation and acceptance of any consequences as simply another challenge to be overcome speaks primarily to a macro view of social change, concerned with the aggregate good of humanity rather than local circumstances or manifestations of power. While acknowledging that the processes of technological innovation can have locally deleterious effects, the primary political task is to manage this constant sequence of upheavals. This is made explicit in a 2014 essay in the *Breakthrough Journal* (Nordhaus, Shellenberger & Caine, 2014) which deploys the economic concept of “creative destruction” as a model for life in the anthropocene. Developed by economist Joseph Schumpeter in the mid-20th century and popularized in the technology-driven economic boom of the 1990s, creative destruction refers to the cycles of innovation and

transformation which characterize capitalist economic systems. Rejecting the environmentalist idea of living in harmony with nature, Nordhaus et al. (2014) argue that “our powers of creative destruction must be embraced and guided, not denied or repressed. The challenge we face, in the ecomodernist view, is to become ever-wiser stewards of technological innovation, human development, and nature protection.”

The emerging ecomodernist identity

The use of economic terms such as “creative destruction” also serves the BTI’s strategic goals of reaching an audience who may be concerned about environmental issues while wary of being associated with environmentalism. As with the strategy in *The Death of Environmentalism* of drawing on the success of the conservative movement rather than similarly applicable lessons from environmental justice, the BTI’s use of economic and technological discourses positions them as a pragmatic, centrist alternative to “the dark, zero-sum Malthusian visions and the idealized and nostalgic fantasies for a simpler, more bucolic past in which humans lived in harmony with Nature” (Nordhaus & Shellenberger, 2011) which they argue characterize mainstream environmentalism. This rejection of the idea of living in harmony with nature is bound up in the emergence of the ecomodernist identity. In an essay entitled ‘The Education of an Ecomodernist’ in a creative destruction-themed issue of the *Breakthrough Journal*, geographer Martin Lewis (2014) writes of his disillusionment with “Arcadian” environmentalism that rejects modernity and technology. Lewis makes the case that pre-modern and indigenous cultures did and do not live in harmony with nature and have a much greater per-capita impact on the physical environment than do industrialized societies, with much lower

living standards. The “pragmatic, non-ideological” ecomodernist approach is contrasted to the BTI’s familiar construction of environmentalism as composed of radical, out-of-touch hippies or hypocritical affluent liberals whose environmental identities “represent a cultural attitude more than a serious political or economic agenda.”

Much of the BTI’s public communication, for instance in newspaper op-eds, between 2011 and 2014 focused on attacking mainstream environmental organizations or ideas. The conceptual framework of ecomodernism developed in *Break Through* and the *Breakthrough Journal* essays certainly informs their efforts, but the primary focus is on debunking environmentalist orthodoxy while still calling for action on environmental issues. Op-eds by Shellenberger and Nordhaus attacked environmentalists’ strategies of linking natural disasters to climate change and the political effectiveness of Al Gore’s climate activism (Nordhaus and Shellenberger, 2014) and the idea that energy efficiency could reduce carbon emissions (Shellenberger and Nordhaus, 2014). Many of the articles published on the Institute’s website also follow this pattern, with headlines arguing against environmentalist sacred cows such as renewable energy (“When Renewables Destroy Nature”), city living (“The Green Urbanization Myth”) and Arctic ice melt (“How Environmentalists and Skeptics Misrepresent the Science on Polar Bears”); and in favor of nuclear energy (“Nuclear is Cheaper than Solar Thermal”), factory farming (“Is Feedlot Beef Better for the Environment?”) and genetically modified food (“Love Your Frankenfoods”). All of these are informed by careful research and analysis, and in many cases the articles are not as sensationalist as the headlines would suggest. The choice to present a contrary position to commonly-held environmentalist views is clearly deliberate

and works to solidify the BTI and its followers as an alternative to environmentalism rather than merely a disputatious offshoot.

This work of building a distinct identity, which would culminate in the adoption of ecomodernism and release of the ‘Ecomodernist Manifesto’, intensified in 2012 and 2013. Several articles in environment-focused publications picked up on the growing movement and its increasing ideological coherence. Science journalist Keith Kloor, in a December 2012 feature for *Slate*, traces the origins of what he calls “modernist greens” to the Death of Environmentalism and the ensuing debates (Kloor, 2012). The article sets up a contrast between the pragmatic, optimistic modernists and “traditionalist” greens who still adhere to a nature-centric framework and apocalyptic catastrophizing. Kloor implicates the scientific community in this latter worldview, writing that environmental scientists

hold glitzy, international symposiums that put humanity on a mock trial for the global imprint of its civilization. The common thread: *The Anthropocene is an unmitigated disaster. Humans are planet wreckers. Time is running out for us.* (Kloor, 2012; emphasis in original)

British environmental journalist Fred Pearce, in a feature article for *Yale Environment 360* magazine which was republished on the BTI website, also charts the rise of “environmental modernism” (Pearce, 2013). Pearce emphasizes that the modernists “want to cut the links between mankind and nature” through the use of technology so as to spare nature from human impacts. Complicating the clean dichotomy drawn by Kloor (and the ecomodernists themselves) between modernist and traditionalist environmentalists, Pearce notes that “some degree of environmental modernism is part of the worldview of all but the most fundamentalist greens.” In so doing, Pearce points out

the value of the ecomodernist discourse to environmentalism more broadly, through “raising questions about why mainstream environmentalists buy into some aspects of modernism and some technologies, while resisting others.” Shellenberger and Nordhaus do claim to value rational and constructive debate, and there is some evidence that they uphold this. But, particularly in the case of the BTI, this conflicts with the institutional imperatives of standing out in a crowded ideas marketplace, and through focusing their attacks on strawman environmental traditionalists they miss opportunities to build a constructive dialogue amongst erstwhile allies.

The release of the *Ecomodernist Manifesto* (Asafu-Adjaye et al., 2015) in April of 2015 attempted to codify the ecomodernist worldview and define ecomodernism as a discursive worldview in its own right. As explained in the 2015 issue of the *Breakthrough Journal* which followed the release of the manifesto, it was intended to change the focus “from what environmentalism is not and cannot be, to what ecomodernism is and should become” (Nordhaus, Shellenberger & Mukuno, 2015). The manifesto and related publications – the *Breakthrough Journal* issue and op-eds published by Shellenberger and Nordhaus along with other proponents of ecomodernism – reflect several shifts in emphasis from their earlier output. The manifesto opens by affirming the notion that the Anthropocene requires conscious application of human capabilities to shape the planet for the better, before immediately taking what appears to be a sharp departure from their earlier position regarding humanity’s relationship with nature:

A good Anthropocene demands that humans use their growing social, economic, and technological powers to make life better for people, stabilize the climate, and protect the natural world. In this, we affirm one long-standing environmental ideal, that humanity must shrink its impacts on the environment to make more room for nature, while we reject another, that human societies must harmonize with nature to avoid economic and ecological collapse. (Asafu-Adjaye et al., 2015, p. 6)

Central to the manifesto is the idea of “decoupling” human development from environmental impacts. This essentially means harnessing technology to use natural resources more intensively and efficiently, such that a greater area of land can be freed from direct human impact.

As discussed above, much of the BTI’s theorizing on the relationship between humans and nature had emphasized the arbitrariness of the human-nature dichotomy and the social construction of ‘the environment.’ The *Ecomodernist Manifesto* follows on from this, but places a greater rhetorical emphasis on nature and the importance of reducing humanity’s physical footprint in order to create spaces untouched by humans. Placing decoupling as the core logic of ecomodernism means that environmental protection and the need to “re-wild and re-green the Earth” (Asafu-Adjaye et al., 2015, p. 15) take an equal place alongside the BTI’s usual agenda of enhancing human wellbeing through technology. While the manifesto acknowledges anthropocentric control of the environment and that “the Earth is remade by human hands” (p. 6), the path to a good Anthropocene depends on “reducing the totality of human impacts on the biosphere” (p. 17). Further than this, though, the manifesto argues that the “case for a more active, conscious, and accelerated decoupling to spare nature draws more on spiritual or aesthetic than on material or utilitarian arguments” (p. 25). Ecomodernism does not deny

humanity's attachment to nature, but takes the position that the best path through the Anthropocene involves minimizing these attachments to the extent possible. The imperative for decoupling thus is presented not as a necessity based on science – or economics – but rather a choice based on values.

The philosophical underpinnings of the manifesto are further developed by environmental philosopher Mark Sagoff, one of the manifesto's authors, in an article for *The Breakthrough Journal* entitled 'A Theology for Ecomodernism: What is the Nature We Seek to Save?' (Sagoff, 2015). Sagoff positions ecomodernism as distinct from both the 'conservationist' approach of only valuing nature that is untouched by humanity, and the 'ecosystem services' approach of only valuing nature based on its monetary value for humanity. The ecomodernist approach, for Sagoff, is to make nature "economically useless or worthless," following the manifesto's credo that "nature unused is nature spared." If nature is not part of the economic system, it will not face any pressure to be developed or destroyed for human ends. 'Nature,' as defined by the ecomodernists, is not the "the all-encompassing singular Nature" of environmentalists, but rather "comprises innumerable places, each with many stories that combine human and natural activities in ways that add meaning to those places." This reflects the theology outlined by Latour for the BTI in that 'nature' is conceptualized in the plural, as a panoply of "new natures we are constantly creating" (Latour, 2012). These new natures are not separate from nor subservient to society but increasingly "attached," to use Latour's term, and humans are unavoidably implicated in the responsibility of caring for them. Sagoff (2015) concludes that "the theological hope of ecomodernism is that ... human beings will become the

guardian spirits of the natural world.” ‘We are as gods,’ not only in our role as the dominant force in the Anthropocene, but in terms of the relationship with our creation(s) – attached to and responsible for, yet able to separate ourselves, hence the manifesto’s rejection of the environmentalist premise that human society should harmonize with nature.

One of the key tensions in *An Ecomodernist Manifesto*, and the BTI’s work more generally, is between the strategic and political goals – in other words, between gaining the support of their target audience and articulating a coherent philosophy. The manifesto continues the BTI’s strategy of appealing to people concerned about environmental or conservation issues but uncomfortable or disillusioned with mainstream environmentalism. The manifesto’s rhetorical move towards nature conservation can be seen in this light, as one of the less politicized aspects of environmentalism. The aim of protecting nature – even if it is a nature of our own creation – is less controversial, less political, and avoids messy issues of inequality and power relations. The emphasis on technological ahead of political solutions also plays into this depoliticizing tendency. In an interview with business publication *SNL Financial* following the release of the manifesto, Shellenberger states that political change is “in distant second place against the main event, and that is technological change” (in Khan, 2015).

There are several changes evident in the manifesto as compared to *The Death of Environmentalism*. DoE positioned climate change as the defining environmental issue of our time (reflected in the report’s subtitle, *Global Warming Politics in a Post-Environmental World*). The manifesto has a broader scope, and while climate change is

frequently mentioned, it is mainly in the context of enabling a technologically-driven shift in energy production. The insistence that environmental politics belongs to the progressive left is also gone, replaced by a pragmatic centrism which criticizes the extremes on both sides of the political spectrum. The BTI published an article referencing a new political formation called the ‘up-wingers,’ an alliance between leftist technocrats and libertarians. Their modernist, future-focused politics is set in opposition to the backwards-looking ‘down-wingers,’ comprised of traditionalist conservatives and Malthusian environmentalists (Breakthrough Staff, 2014a). More generally, though, the ecomodernists position themselves as rational and pragmatic, with their politics shaped by dialog and debate rather than adherence to a particular ideology. American liberalism will have to “once again embrace collaboration and compromise” and progress “depend[s] upon a social contract between the public, government, and industry” (Nordhaus, Shellenberger & Mukuno, 2015). DoE insisted that post-environmental politics would have to engage in values-driven political fights to “divide our opponents and build our political power over time” (Shellenberger and Nordhaus, 2004, p. 27) while criticizing mainstream environmental groups for being too technocratic. Ecomodernism, while it has a philosophy and set of values behind it, presents a depoliticized and technology-focused discourse. Although DoE does acknowledge political enemies of environmental progress, a major commonality between the two approaches is that environmentalists are viewed as the major obstacle towards achieving their goals.

Conclusion: Democracy in the Anthropocene

The Breakthrough Institute's contribution to American environmental discourse has been important in recognizing the role of ecological risks to the constitution of politics. Though the specific political outlook and policy platform has evolved over time, the Institute (and in particular its principal voices Michael Shellenberger and Ted Nordhaus) has consistently questioned the assumptions and conventional wisdom of mainstream environmentalism. Environmentalists are often denounced by their political opponents for their hypocrisy; for living comfortable modern lifestyles while insisting that society must abandon such ways of living for the sake of the planet. While often unfair, such criticisms are emblematic of a confusion within much environmental discourse and a lack of specificity in terms of environmentalists' orientation towards technology and modernity. The introduction of an ecomodernist perspective to environmental debates throws these issues into sharper relief. As science writer Fred Pearce (2013) points out:

By raising questions about why mainstream environmentalists buy into some aspects of modernism and some technologies, while resisting others, the modernists force us to ask exactly what we want. And how we think we can get it.

Part of the reason for the confusion in mainstream environmental discourse is the rising prominence of global environmental risks, climate change chief among them, which are conceptually different to other environmental issues such as land and wildlife preservation or pollution. While these latter concerns remain relevant, they are situated within a larger context of anthropocentric planetary change in which human actions fundamentally alter global biophysical processes. The Breakthrough Institute aims to

create a politics and a worldview which is consistent with this acknowledgement of humans' impact on the world, and provide some philosophical coherence to strategies for living in the Anthropocene.

In order for the Institute to boost its profile and stand out in a crowded ideas marketplace, it has chosen to define itself against mainstream environmentalism. A key feature of their approach, from DoE through to *An Ecomodernist Manifesto*, has been the often scathing attacks on environmentalists and environmental justice advocates. The portrayals of environmentalists as anti-technology luddites who want to keep poor countries from developing, or spiritualist tree-huggers denouncing modern conveniences while reaping their benefits, are overly broad and often unfair generalizations. For the most part the environmental community is the only target of such scorn from the BTI, which otherwise pursues a pragmatic and non-confrontational politics. This is in contrast to environmental groups such as 350 or Greenpeace who target those they see as responsible for environmental wrongs, or those who delay taking action.

While reserving their attacks for those who would seem to be most closely aligned with their cause may seem counterproductive, the BTI's strategy aligns with their political outlook in two ways. Firstly, it strengthens their organizational identity and provides greater visibility for the institute and the idea of ecomodernism. By defining themselves in opposition to environmentalism, the BTI takes advantage of the news media's propensity to cover infighting amongst erstwhile ideological allies (Roberts, 2011), as well as appealing to an audience wary of aligning themselves with environmentalists. Secondly, ecomodernism holds that the major problem with

environmental politics as it is currently practiced is how the issues are conceptualized and defined. Environmental groups, as the agents primarily responsible for putting these issues on the public agenda, are therefore seen as the principal obstacle rather than particular institutions or systemic factors. Through viewing modernity and industrialization as net positives, the ecomodernists are less likely to challenge the status quo.

The ecomodernists' emphasis on technological change and downplaying of the importance of politics means that they do not often focus directly on questions of power and inequality. The invention and adoption of new technologies is assumed to result in beneficial outcomes for all and is concerned mainly with the aggregate good of humanity, and is for the most part presented as an inevitable and value-neutral process. More localized issues of differentials in access to technology and in whose interests it is being deployed are absent. For such an all-encompassing discourse which takes into account the relationship of humanity to the entire planet and aims to present a holistic vision for life in the Anthropocene, ecomodernism is remarkably depoliticized. While the assumptions of mainstream environmentalism are open to questioning, broader socio-political structures remain largely intact. Ecomodernism is not an endorsement of neoliberalism or free-market capitalism; the *Manifesto* explicitly rejects the conflation of modernization with "capitalism, corporate power and laissez-faire economic policies" (Asafu-Adjaye et al., 2015, p. 28) and notes that "we continue to embrace a strong public role in addressing environmental problems and accelerating technological innovation" (p. 30). However, there is little indication that the ways in which political and economic

systems operate – even if still in the service of advancing development, technology and industrialization – need to change.

The depoliticized approach of ecomodernism – which, in Pepermans and Maesele's (2014) terms, conceals the “underlying values, interests, and assumptions” of social actors (p. 224) – was not always the outlook of the BTI. In DoE and other writings around the same time, Shellenberger and Nordhaus accused environmentalists of being too technocratic and focusing too heavily on policy rather than politics. This is not a reversal of their position, but a shift in the type of changes they are advocating. DoE called for a re-examination of the underlying morality which supports environmentalism, and the *Manifesto* attempts to articulate a moral worldview which should guide policy choices. But where DoE explicitly aligns their cause with liberal politics and urges environmentalists to get involved in political battles, ecomodernism takes a step back from partisan politics. This again strengthens their appeal to their target audience as well as giving ecomodernism a more universal claim to relevance rather than aligning itself to a particular political grouping.

The ecomodernists themselves, of course, see this aversion to partisanship and politicization as a strength of their approach. In a *Breakthrough Journal* article on ‘wicked polarization’, Shellenberger and Nordhaus (2013) write that it is necessary to “disrupt the fault lines of our many intensely polarized debates and to disorient partisans accustomed to knowing exactly what they are supposed to think about any issue.” Positioning themselves with “pragmatic liberals and moderates” and in opposition to the “anticorporate and antigovernment partisans” on the left and right respectively, they

argue in favor of public debate which can reframe problems in novel ways and spur creative, cooperative solutions. Communications scholar Matthew Nisbet (2014a), who has written for the BTI website and notes that his own outlook is close to the ecomodernists, identifies the ecomodernist model of social change as “public forums that challenge assumptions create conditions for cooperation [and] innovation” (p. 814). Responding to criticism that ecomodernists ignore politics, Nisbet (2015) argues in a post for the *Ecomodernist Manifesto* website that “social change starts through critical self-reflection and challenging of our assumptions” with the aim of “getting a diversity of people to act on behalf of the same goal but for different reasons.”

This conception of politics as a problem which can be solved through reasoned, rational debate – when it is not rendered irrelevant by advances in technology – works to obscure power dynamics in social and technological change. Bruno Latour – who, as noted, has been sympathetic to the BTI’s agenda – remarked on the absence of politics in a critique of the *Manifesto*, stating that “I will be convinced only when I have obtained a detailed list of your friends and your enemies” (Latour, 2015, p. 224). Ecomodernism cannot be a political movement, Latour argues, if it cannot define “who will get mobilized, [and] against whom we have to fight” (p. 224). Reducing all political differences to disagreements of opinion which can be resolved through reasoned deliberation also glosses over questions of who has access to such deliberative spaces and the structural inequalities that persist within them. As Nancy Fraser (1991) points out in her critique of Habermas’ model of the public sphere, such inequalities cannot be bracketed when “discursive arenas are situated in a larger societal context that is

pervaded by structural relations of dominance and subordination” (p. 120). The ecomodernists’ commitment to fostering a diversity of perspectives and willingness to challenge commonly-held assumptions is laudable, and contrary viewpoints are sometimes presented – for instance on the ecomodernism.org website, and in the BTI’s annual conference (Latour’s [2015] critique of ecomodernism was written for this latter event). Nonetheless, the continual dismissal by ecomodernists of environmentalists and environmental justice advocates, often using broad stereotypes of hypocritical spiritualist tree-huggers, does give less weight to particular groups and perspectives. Further to this, ecomodernism’s pragmatic centrism, and embrace of solutions which largely uphold existing structural arrangements, marginalizes voices which seek to challenge the status quo.

While Nordhaus and Shellenberger’s (2007) book *Break Through* contained strategies to build a movement, the BTI’s focus since then has in large part turned away from directly addressing the place of citizens in environmental politics. *An Ecomodernist Manifesto* talks of economic and technological processes, energy development, resource use, and impacts on ecosystems. It is a deliberately macro-level perspective, and as such avoids any discussion of the role played by people in the creation of a “great Anthropocene.” The insistence that technological change precedes (and is superordinate to) political change also minimizes the democratic processes which shape these processes. In any case, widespread social change is not on the ecomodernists’ immediate agenda; most of their proposals call for a continuation of existing trends and processes which come with modernization, such as agricultural intensification, urbanization, and

resource use efficiency. Widespread systemic political change is not particularly necessary for their agenda as they are advocating for processes already in motion.

One of the central tensions of the Anthropocene is that between impact and control. The reach of human impact extends throughout the entire planetary environment, but our control of these impacts is uncertain and imprecise. Moreover, environmental impacts arise out of particular political and economic formations, and are often driven by subpolitical processes outside of the direct control of democratic institutions. Beck (1992) saw risks as a potentially democratizing force, as their more universal impact would lead to a reconsideration of the societal processes from which they resulted. This idea has rightly been subject to much critique, as systemic inequalities are just as likely to be reproduced in responses to risks. Nonetheless, in a world where environmental impacts are embedded in sociopolitical systems, it is necessary to address the role of citizens in democratically shaping these processes. While ecomodernism stresses the importance of consciously creating the Anthropocene, of using the power that humans have to build a world in which we want to live, this happens within the framework of industrialized societies and alternatives are rarely considered. As such, the BTI's ecomodernism aligns more closely with Christoff's (1996) 'weak' ecological modernization, despite it being comprehensive in scope. The 'modernization theology' which embraces the tenets of modernity requires a faith that the modern world is the best world; that the structures and institutions of modernity are, with some adjustments, the same ones that will lead us to overcome the crises for which they themselves are responsible. Rather than creating a citizen-driven politics which integrates and takes account of humans' impact on nature,

the ecomodernists seek to decouple from nature, once again circumscribing the natural world as separate from human affairs.

The rhetorical shift found in *An Ecomodernist Manifesto* towards decoupling economy from environment in order to preserve nature introduces some conceptual confusion into ecomodernist discourse, particularly when compared to previous writings. Mixing traditional appeals for nature conservation with their technology-centric modernism may enhance their appeal to particular audiences who do not yet want to give up on the idea of a pristine nature. Fred Pearce, in a critique published in *New Scientist*, writes that the ecomodernists “seem to be hooked on outdated notions of nature as passive, pristine and only able to prosper apart from us” (Pearce, 2015). After deconstructing nature, the ecomodernists are attempting to reinstate it, albeit in a reconstituted, anthropocentric form that, while subject to human influences, exists as a separate entity outside of human affairs. As Latour (2015) notes, the concepts of nature and modernity are used to shortcut the political process – in the case of nature through “creating a second power [that is] out of the reach of political assemblies” (p. 4). Rather than recognizing the multitude of ways in which human society is entangled with nature, ecomodernism attempts to once again draw a boundary separating human affairs from the natural world. This boundary-making process in a sense recreates Latour’s (1993) ‘modern constitution’ by claiming that humans can be emancipated from nature while ignoring the attachments they have created. What decoupling means in practical terms – land use intensification, greater efficiency of resource use – will inevitably have

consequences for the areas designated as ‘nature.’ The implication is that such impacts will be minimized or ameliorated through further technological development.

Reinstating a human-nature boundary – which, by the ecomodernists’ own definition, is largely arbitrary – minimizes the entanglements and attachments which are constantly and unavoidably being created through human action. Together with the prioritization of technology over politics, this has major implications for political agency. If adapting to life in the Anthropocene is primarily technological, then much greater attention needs to be paid to how this is implemented given disparities in economic and political capital. Technology treated as a benign, apolitical force for the greater good tends to reproduce existing inequalities, both within and between nations. The BTI is increasingly focusing on issues of international development (e.g. Breakthrough Staff, 2014b, 2014c; Caine et al., 2014). If twenty-first century ecomodernism is to avoid a similar path to twentieth century modernization theory, in which Western cultural and economic dominance was reinforced under the auspices of development (e.g. Hardt, 1988), such issues of inequality will need to be directly confronted. Along with this, a politics of the Anthropocene must be able to account for the integration of non-human actors into political decision-making – to be able to exercise some form of democratic control over the planetary biophysical systems which are inextricably connected to human socio-technical ones. By de-emphasizing the role of democratic politics in creating the Anthropocene, ecomodernism defaults to a faith in the political and economic structures of industrial modernity as our hope for ecological salvation.

¹ Founded in 1999, *Grist* (www.grist.org) is a non-profit website which publishes environmental news and commentary with an often irreverent tone. It won Webby Awards for best online magazine in 2005 and 2006, and was ranked first on *Time Magazine*'s list of 'Top Green Websites' in 2008 (Roston, 2008).

² According to Little (2005b) in a feature about the Apollo Alliance for *American Prospect* magazine, "Leaders of the Apollo program, who spent great effort trying to build practical coalitions among environmental and labor groups, were embarrassed when the 'Death' authors singled out Apollo for lavish praise while savaging the rest of the environmental movement." Shellenberger, a founding member, left the Alliance soon after the publication of DoE.

³ It is interesting to note that this criticism of environmentalists is mainly at the individual level, rather than focusing on social structures or institutions, while the solutions they offer are at the level of the latter. The 350 group also critiques individual behaviour change, while advocating structural and institutional change. In other words, both groups criticize the inadequacy of individual change while advocating for the necessity of structural reform.

Chapter 6 – Gardening the Anthropocene: Conservation after the end of nature

Introduction

In an April 2015 article for the *New Yorker* magazine, American novelist and essayist Jonathan Franzen lamented what he saw as the eclipse of traditional conservation concerns by climate change. By focusing all of their resources on the potential future threats to wildlife, Franzen argued, conservation groups are ignoring pressing threats to species and habitats in the present:

I came to feel miserably conflicted about climate change. I accepted its supremacy as the environmental issue of our time, but I felt bullied by its dominance. Not only did it make every grocery-store run a guilt trip; it made me feel selfish for caring more about birds in the present than about people in the future. What were the eagles and the condors killed by wind turbines compared with the impact of rising sea levels on poor nations? What were the endemic cloud-forest birds of the Andes compared with the atmospheric benefits of Andean hydroelectric projects? (Franzen, 2015)

Franzen's piece was widely derided by conservationists. Bird conservation organization The Audubon Society, the major target of Franzen's angst, dismissed it as "the sad ravings of a man trying to escape his guilt-ridden Protestant Puritan heritage and justify his consumerist lifestyle" (Jannot, 2015) and pointed out that addressing climate change and conservation are complementary rather than competitive. Franzen's essay and the minor controversy it generated – Audubon also published a roundup of responses, both positive and negative (National Audubon Society, 2015) – nonetheless reflect broader

underlying tensions within the conservation movement. Questions over immediate priorities, such as how best to protect species and ecosystems facing both short-term local threats and long-term global ones, are symptomatic of deeper uncertainties over nature conservation in the Anthropocene when human influence permeates every corner of the biosphere. What is the nature we seek to preserve in an era when nature is said to have ended?

This chapter examines these issues through looking at The Nature Conservancy (TNC), the largest American environmental non-profit (by revenue and assets) and one of the oldest, having been founded in 1951. As its name suggests, TNC was founded as a conservation-driven organization, its original mission to solicit donations in order to buy up land towards protecting it from development. The organization's mode of operation has changed over the years, following developments in environmental thought and ecological science, even as place-based conservation efforts have remained central. The rise of the concept of the Anthropocene and the emergence of climate change as the central environmental issue of the last decade have presented a dilemma for TNC, as it becomes less tenable to speak of protecting an unspoiled, pristine nature. In response, TNC has taken an approach that maintains its establishment-oriented ethos and approach to conservation while acknowledging wider global environmental trends. It has embraced an 'ecosystem services' approach to conservation, where the value of natural resources is quantified in terms of their monetary benefit to human activities. Senior figures in TNC have also been at the forefront of a related intellectual movement, often referred to as 'new conservation,' which attempts to reconceptualize conservation for the Anthropocene

by emphasizing the eroded boundaries between humans and nature and promotes conservation explicitly for human benefit. These shifts in emphasis within the organization have caused tensions with its public advocacy and fundraising, as it attempts to retain the loyalty (and generosity) of its member base through appeals to protect nature while advancing a new paradigm for conservation practice.

Analysis includes 32 articles from the period 2011-2015 at the height of the debates over new conservation. Articles are a mix of feature stories by environmental journalists, and editorials or opinion pieces written by conservation practitioners. The articles were sourced through web and Lexis Nexis searches for key terms, and through links and references in the articles themselves, many of which were in direct conversation with one another. The chapter also analyzes advertising and publicity campaigns by TNC and how the ways in which the organization promotes conservation to the public is consistent with the outlook of its senior figures. This includes the key sections of the organization's website encouraging people to get involved or donate money, and sub-sites focusing on specific campaigns or issues. The TNC website also includes a blog entitled Conservancy Talk which features posts about TNC's operations from Tercek and other leaders in the organization. From 122 posts between 2013 and 2015, 23 which include self-reflexive discussion of TNC's approach were selected for analysis. Emails sent to TNC's members were also included in the analysis; out of 250 emails sent between July 2013 and December 2015, 78 which focused on specific campaigns or initiatives to protect nature were selected for analysis (see Table 4).

Table 4: List of primary sources for chapter 6

Source Type	Details	Number
Book	<i>Nature's Fortune</i>	
News and commentary	Magazine or newspaper features	15
	Op-eds or blogs	7
	Academic journal editorials	9
	<i>Total</i>	<i>31</i>
TNC publications and publicity material	TNC website and promotional campaigns	
	'Conservancy Talk' blog posts	23
	Emails to members	78

The origins and evolution of TNC

Though officially chartered in 1951, the roots of TNC date back to 1915 with the formation of the Ecological Society of America (ESA), a professional organization of ecological scientists. From its founding, ESA had faced tensions over whether it should actively work to promote ecological preservation or simply serve as a venue for ecological research. After much debate, the organization voted in 1946 to limit itself to the latter mission and not get involved in advocacy or political causes. This resulted in a small group of scientists, led by eminent ecologist and ESA's first president Victor Shelford, forming the Ecologists' Union. This new group was to be dedicated to the "preservation of natural biotic communities, and encouragement of scientific research in preserved areas" (Farnham, 2007, p.161; see also Dexter, 1978). Renamed The Nature Conservancy in 1950, the organization had an expansive vision from the outset. The land conservation movement had been growing in the US at the time, spurred by concerns over unchecked development in previously wild areas. However, most conservation had

“centered on the large, spectacular, and scenic” (Birchard, 2005, p. 5). TNC instead adopted a scientific approach, aiming to preserve nature in all of its variety, rather than only that which was aesthetically appealing to humans. For George Fell, an early director of TNC, the lands preserved by the Conservancy would be “living museums to the primitive world of nature” (quoted in Birchard, 2005, p. 5). Fell envisioned a nationwide network of nature preserves containing examples of ecosystems from every natural region which would, he said at a board meeting in 1954, “have the size and strength to take its rightful place in a country that does things on a gigantic scale” (quoted in Birchard, 2005, p. 4).

From its humble yet ambitious start as an association of ecologists and conservation enthusiasts, TNC evolved in the 1960s into a professionally-run organization staffed by accountants and lawyers. This was a necessary development given that TNC was essentially in the real estate business, buying up tracts of land to prevent development. A headquarters was established in Washington, DC – despite a suggestion from Fell that being based in a small, rural town would better reflect TNC’s conservation philosophy, the DC base was chosen to lend greater prestige and, more importantly, provide easier access to the power brokers and wealthy individuals necessary for acquiring land and money (Birchard, 2005). From the beginning, TNC adopted a non-confrontational approach, aiming to work with various constituencies – landowners, politicians, corporations – in order to further its conservation goals. The Conservancy, Birchard notes, “would never be *against* anything. It would buy and preserve land, period – and nobody would then raise a stink about its work” (p. 57).

Corporations, of course, were (and remain) a major source of donations for TNC's aggressive and expensive program of land acquisition, and so TNC's strategy of putting "pragmatism above idealism and cooperation above confrontation" (p. 77) was necessary for keeping them on side.

As TNC grew to its dominant position in the American conservation sector, there were two major shifts in its approach to conserving nature: from valuing land to valuing biodiversity, and from keeping humans apart from nature to using nature to enhance economic activity. By the early 1970s TNC was generating enough income to buy up large areas of land. There was a lack of clear purpose, however, behind land acquisition decisions, and in many cases the organization was simply buying up whatever undeveloped land it could get its hands on. The hiring of Robert Jenkins as Vice-President for Science in 1970 brought ecological science back to the forefront of TNC's operations. Jenkins, like TNC's founders an ecologist by training, favored an approach centered on preserving genetic material and unique ecological systems rather than bulk land purchases. Biodiversity became the primary metric by which TNC's conservation efforts were measured, and a rigorous assessment system was introduced to prioritize land targeted for protection. The rarity of individual species and uniqueness of ecosystems were valued over aesthetic criteria, with quantified scientific judgment applied so as to purposefully exclude human stakeholders (and their subjective criteria) from decision-making over which areas to protect (Birchard, 2005).

A 1992 coffee-table book commemorating TNC's 40th anniversary hints at some of the implications of this shift to biodiversity as the primary criterion for conservation work:

The Conservancy's new mission thrust practicality into an environmental arena that previously had been characterized by appeals to the public's sense of morality and love of beauty. Although morals and aesthetics still apply, the emphasis turned to 'save this plant because we may need it someday' instead of 'save this plant because we have no right to kill it.' (Grove & Krasemann, 1992, p. 31)

Preserving biodiversity was, of course, presented as a worthy goal in and of itself, and in keeping with TNC's original mission of protecting nature from development. Along with this comes the idea that the islands of biodiversity in TNC's preserves could be potentially useful for human needs, whether as a store of genetic material which might one day be exploited, or through providing 'ecosystem services' which benefit human society. The idea of ecosystem services first came to prominence in the late 1970s (e.g. Westman, 1977). Although not often presented at the time as a rationale for the focus on biodiversity, the two concepts became closely linked in conservation discourse (Ridder, 2008). The shift toward biodiversity helped to lay the groundwork for TNC's subsequent embrace of an ecosystem services approach to conservation, as discussed below.

The second and related shift in TNC's operating procedure began in the 1980s. While the move towards biodiversity changed the organization's priorities about which land it should buy, it became increasingly clear that simply buying up land and locking it away was not always a viable strategy for conservation. The boundaries of ecosystems do not stop at the edge of the nature preserve, and so what happens in the surrounding areas can be as important to conservation efforts as the preserve itself. Recognizing the

importance of the wider region to conservation necessarily includes acknowledgement of the presence and activities of humans. Where TNC had initially sought to enforce a sharp human-nature dichotomy, buying land to spare it from the human-induced degradation which was happening everywhere else, this strategy became increasingly untenable. Not only did activities near the preserves impact what happened within them, but TNC's land acquisitions often caused disruptions and resulted in tensions with neighboring communities. The organization found that it could no longer "acquire land, put a fence around it, and call it good", but instead had to "support the people who lived and worked in a place so they would coexist harmoniously with the precious pieces of nature in the same neighborhood" (Birchard, 2005, p. 94).

TNC thus broadened its scope, to encompass not only the lands it owned but the broader set of social and institutional structures which have a bearing on nature conservation. Still maintaining its non-confrontation approach, TNC began to engage more with other stakeholders such as nearby communities, government agencies, and corporations. While place-based conservation remained at the core of the organization's work, this was located within a broader context, such that by the late 1990s TNC had shifted from "an institution defined by real estate deal-making to one mainly defined by institutional deal-making" (Birchard, 2005, p. 102). This approach was codified in a program entitled 'Conservation By Design' which, though it undergoes periodic revisions, remains TNC's framework for conservation. Whereas ecosystems were previously TNC's primary unit of conservation, the new approach emphasized larger *ecoregions*, defined as "relatively large geographic areas of land and water delineated by

climate, vegetation, geology and other ecological and environmental patterns” (TNC, 2001). Instead of protecting the isolated pockets of land on TNC’s preserves, the new approach took a broader view, using ecoregions as “a framework for identifying the individual places ... that taken together would spell success: the conservation of all viable, native species and communities” (Adams, 2006, p. 67).

The shift to an ecoregional conservation strategy was explicitly a move away from using geopolitical boundaries as a basis for conservation, as the state-by-state approach had previously done, and instead used ecological markers to define how an array of local ecosystems fit together. The focus on conservation over wider areas included a variety of human uses and impacts along with the specific sited target for intervention. TNC had to take into account “other dynamics of the landscape, like depletion or pollution of groundwater, that conservationists could not address just by buying land” (Adams, 2006, p. 67). More generally, this approach meant that conservation became as much about human activities as about what took place within the preserves. Achieving the organization’s goals could no longer be achieved by creating small pockets of pristine nature within an otherwise denuded and (for conservation purposes) worthless landscape. Rather, conservation has to be managed within human-dominated landscapes, and is subject to sociopolitical as much as environmental forces. This necessitates interaction and engagement with a broad range of stakeholders and interested parties whose actions have an impact on conservation activities. While TNC’s original purpose was in essence to reinforce the boundaries between nature and society, its trajectory over the decades has seen those boundaries gradually erode.

A new conservation for the Anthropocene

The Nature Conservancy's increasing acknowledgement of the inextricability of biodiversity conservation from human activity coincided with, and was in part spurred by, broader developments within environmentalism. The rise of climate change as the major issue of environmental concern and the related emergence of the concept of the Anthropocene rendered untenable the notion of a pristine nature isolated from human interference. Nature has ended, and nowhere on the planet is free from some form of human impact. TNC's original goal of creating "living museums" was certainly incompatible with this new reality. The organization had, though 'Conservation by Design,' taken steps to recognize the role of humans in natural processes. However, a more thorough reconceptualization of the purpose and goals of conservation would be needed to better reflect the changing ideas of humans' relationship to their environment.

Two of the key figures in TNC's transformation are chairman and CEO Mark Tercek and chief scientist Peter Kareiva. Tercek joined TNC in 2008 after a 24-year career as an investment banker and managing director at Goldman Sachs. His biography on TNC's website notes that he is a "champion of the idea of natural capital – valuing nature for its own sake as well as for the services it provides for people" (TNC, 2015a). In 2013 he authored the book *Nature's Fortune: How Business and Society Thrive by Investing in Nature* (Tercek & Adams, 2013) which lays out the case for an ecosystem services approach where private enterprise can profit through engaging in conservation. Kareiva, an ecologist and evolutionary biologist by training, was TNC's chief scientist from 2002 until his departure in 2015. He became well known in conservation circles as a

leading proponent of a movement called ‘new conservation,’ which argues that conservationists should consider how their activities can benefit humans.

This ongoing redefinition of conservation in the Anthropocene, and TNC’s place within it, resulted in much debate, sometimes acrimonious, within the conservation community. The debates surrounding new conservation and ecosystem services were the subject of some media coverage, mainly in the form of lengthy magazine and newspaper feature stories, as well as op-eds, by the major players. In a blog post responding to one such article in *The New Yorker* (Max, 2014), Tercek and Kareiva (2014) play down a conflict between ‘old’ and ‘new’ approaches to conservation, while defending TNC’s approach in light of changing realities:

The Nature Conservancy continues to embrace ‘traditional’ strategies. We still buy land, we arrange for easements with ranchers and logging companies, we help nations establish marine protected areas. But we also know that securing those ‘last great places’ (as our old motto had it) will be to no avail if climate change renders them obsolete. ... Our newer tactics – working directly with people on strategies that can benefit them as well as nature – acknowledge that conservation today cannot succeed without the support of those who depend directly on resources for their livelihoods.

While a more conciliatory tone has been adopted by most players in the debate since 2014, TNC was at the center of many of the more heated exchanges between 2011 and 2014. The discourses of new conservation and ecosystem services are closely related, though they often play out separately in public debate. As discussed below, new conservation promotes an alternative vision for the purpose of conservation science and advocacy that features humans at the center, while ecosystem services operates as the

value system by which this ideology is implemented by evaluating nature's contributions to society in monetary terms.

New age, new tensions, new paradigm

Vigorous debates over conservation science and practice have long characterized the field. As discussed in the above brief history of TNC, the organization has been at the center of previous shifts in thinking, such as that from land preservation to biodiversity. The debates around what came to be called 'new conservation' took place between 2011 and 2014, though questions of the purpose of conservation and the idea of preserving nature for the benefit of humans had been present in conservation discourse and practice, in various forms, for several decades prior. The concept of sustainable development, which in the 1990s became the dominant conservation paradigm particularly in developing countries, is premised on the notion of advancing human wellbeing while simultaneously stopping the destruction of nature (Dryzek, 2005). Most conservation organizations including TNC had been moving in this direction. The Conservation Director for WWF International wrote in a 2006 history of that organization's approach to conservation of the shift to a more human-focused conservation ethic and the benefits of working with diverse stakeholders, including corporations, in order to "examine fundamental drivers rather than immediate symptoms" (Hails, 2006). The idea of the Anthropocene and the end of an unspoiled nature free from human impact became more prominent in conservation discourse in the 2000s (see Caro, Darwin, Forrester, Ledoux-Bloom & Wells, 2012 for a summary). Caro et al. (2012) note that "with the catchword *Anthropocene* in ascendancy, one might easily come away with the impression that

nowhere on Earth is natural ... and indeed it is common to hear the phrase *humans have altered everything*” (p. 185; emphasis in original).

The growing recognition of the Anthropocene and the impact, however small or diffuse, of humans on almost all ‘natural’ ecosystems paved the way for a more explicit rethinking of the purposes and goals of conservation. Kareiva, TNC’s Chief Scientist, had been exploring these ideas, mainly in academic venues. A 2007 article in science magazine *Scientific American* co-authored with environmental science professor and frequent collaborator Michelle Marvier makes a case for a more human-centered conservation and calls for increasing links between conservation and development, chiding conservationists who “are in denial about the state of the world and must stop clinging to a vision of pristine wilderness” (Kareiva & Marvier, 2007, p. 55). The article states that “we and a growing number of conservationists argue that old ways of prioritizing conservation activities should be largely scrapped in favor of an approach that emphasizes saving ecosystems that have value to people” (p. 51).

In 2011, environmental writer Emma Marris published the book *Rambunctious Garden: Saving Nature in a Post-Wild World* (Marris, 2011). A manifesto of sorts for conservation in the Anthropocene, Marris argues against making a distinction between wild ecosystems and those created or influenced by humans. Rather than thinking of nature as a “pristine wilderness” and “something ‘out there,’ far away” (p. 1) she advocates a new way of seeing nature that includes the plants and animals that are found in cities, farms, gardens and highway medians; a mixture of native and introduced species

thriving in human-created landscapes. The role of humans in creating and maintaining these landscapes becomes a central and unavoidable issue in addressing conservation:

In 2011 there is no pristine wilderness on planet Earth. We've been changing the landscapes we inhabit for millennia, and these days our reach is truly global. ... We are already running the whole Earth, whether we admit it or not. To run it consciously and effectively, we must admit our role and even embrace it. We must temper our romantic notion of untrammelled wilderness and find room next to it for the more nuanced notion of a global, half-wild rambunctious garden, tended by us. (p. 2)

The book brought together views that had been expressed in academic settings over the preceding decade. It set the stage for a more public and divisive debate that was to ensue as the 'new' conservation was articulated and distinguished from 'traditional' approaches.

In 2012, Kareiva and Marvier, together with TNC director of science communications Bob Lalasz, published an essay for the Breakthrough Institute's journal (Lalasz, Kareiva & Marvier, 2012). Entitled 'Conservation in the Anthropocene: Beyond Solitude and Fragility,' it forthrightly makes the case that the current conservation paradigm is failing, and that "conservationists will have to jettison their idealized notions of nature, parks, and wilderness – ideas that have never been supported by good conservation science – and forge a more optimistic, human-friendly vision." The article draws a sharp line between the old conservation and the new with some confrontational rhetoric. The authors attack the hypocrisy of conservation icons such as John Muir, Henry David Thoreau, and Edward Abbey, and point out the complicity of conservationists in having indigenous people forcibly removed from their lands in the name of nature protection.

The new conservation they advocate is explicitly presented as a paradigm shift (a term also used by Marris [2011]). The old ways must be abandoned, with a new, positive and human-centric ethic taking their place:

Instead of scolding capitalism, conservationists should partner with corporations in a science-based effort to integrate the value of nature's benefits into their operations and cultures. Instead of pursuing the protection of biodiversity for biodiversity's sake, a new conservation should seek to enhance those natural systems that benefit the widest number of people, especially the poor. Instead of trying to restore remote iconic landscapes to pre-European conditions, conservation will measure its achievement in large part by its relevance to people, including city dwellers. Nature could be a garden – not a carefully manicured and rigid one, but a tangle of species and wildness amidst lands used for food production, mineral extraction, and urban life. (Lalasz et al., 2012)

Following Marris, the article uses the metaphor of 'nature as a garden'; a place which is shaped and overseen by humans but within which nature can flourish in a multitude of ways.

The use of such language seeks to break down the division between humans and nature, positioning them both as part of the same interconnected system. New conservation discourse aims as part of this to remove the valences traditionally associated in conservation with the human and the natural, where the former is seen as negative and the latter as positive and that any human intrusion into nature is to be avoided. The word "pristine" is used four times in the article, always pejoratively as a mythic past to which we cannot return: conservationists have an "intense nostalgia for wilderness and a past of pristine nature" and "cannot promise a return to pristine, prehuman landscapes" (Lalasz et al., 2012). The notion of an unspoiled wilderness which is disconnected from human

impact of any kind is, the authors argue, a romantic fantasy which is hindering efforts to both save species from extinction and enhance human wellbeing.

As discussed in chapter 2, there are debates amongst scholars as to when the Anthropocene era began – whether it is a result of recently detectable planetary changes such as the rise in carbon emissions, or if it can be traced to a much earlier time when humans first started modifying their environment on a large scale via the invention of agriculture. The article takes the latter view of a “long Anthropocene,” pointing out the huge changes to landscapes and ecosystems caused by early humans and indigenous populations:

The truth is humans have been impacting their natural environment for centuries. The wilderness so beloved by conservationists – places ‘untrammelled by man’ – never existed, at least not in the last thousand years, and arguably even longer. (Lalasz et al., 2012)

Emphasizing the long history of human interventions and alterations in the natural world further supports the argument deconstructing the human-nature dichotomy. By challenging the idea that there ever was an untouched wilderness to preserve, the new conservationists hope to build support for their agenda of moving conservation away from nature protection and towards working in tandem with human development rather than against it.

The essay by Lalasz et al. (2012) brought into the open and gave greater attention to debates which had been happening within the conservation community for several years. The controversy was not as publicly visible as that surrounding *The Death of Environmentalism* (see Chapter 5), but generated coverage mostly in the form of

commentary from the scientists themselves or lengthy feature articles written by specialist science or environmental journalists. Journalist Hillary Rosner, in a 2013 feature for environmental magazine *Ensia*, notes that “the piece exposed a huge rift in the conservation world and ignited a feud” (Rosner, 2013). While mainly focused on the merits of the new conservationists’ arguments, the debate at times descended into acrimonious name-calling. Ecology professor Stuart Pimm, infuriated with Kareiva and TNC’s denigration of existing conservation work and close ties with industry, described new conservation as “prostituting messages designed to greenwash industrial business-as-usual” and compared its proponents to “whores” (Pimm, 2014, p. 151).¹ There are indications that the debate which emerged in public was only a small portion of a broader disagreement which took place across the conservation world. In an editorial which sought to put an end to hostilities that appeared in the leading scientific journal *Nature*, TNC’s Heather Tallis and former National Oceanic and Atmospheric Administration administrator Jane Lubchenco wrote that “what began as a healthy debate has, in our opinion, descended into vitriolic, personal battles in universities, academic conferences, research stations, conservation organizations and even the media” (Tallis & Lubchenco, 2014, p. 27).

Although heated debates are hardly uncommon within academia, part of the reason this particular disagreement turned so vitriolic has to do with the mission of the discipline of conservation biology. Emerging in the mid-1980s, it was defined from the outset as a “crisis discipline” (Soulé, 1985) that was based on strong and explicit values which held preserving biodiversity as a necessary and urgent moral good (Takacs, 1996).

As Marris (2011) notes, the “scientists who are trained to be dispassionate are often the most passionate and opinionated when it comes to what counts as nature and is worth saving” (p. 3). The combination of scientific research with a moral purpose results in a high level of defensiveness when its practitioners feel it is being threatened; it also makes it easier for the new conservationists to portray them as unscientific and driven more by “the spiritual and transcendental value of untrammelled nature” (Lalasz et al., 2012) rather than what is actually in the best interests of both nature and people.

The public debate in the wake of the Lalasz et al. essay expectedly features disputes over the major premises of their argument. In a series of responses also posted on the Breakthrough Institute website, several authors point out that conservation work as it is practiced already does many of the things the original essay calls for, in particular working for the benefit of human communities. Lisa Hayward and Barbara Martinez (2012) of the American Association for the Advancement of Science criticize the piece for being “written in the tone of a polemic, effectively eliciting an emotional response” and write that “the authors do not accurately represent contemporary conservation leaders. They reinforce the misconception that modern conservation sets nature apart from and above people.” Michelle Nijhuis, in a *New Yorker* feature story, notes that conservationists have often used both “utilitarian and preservationist arguments to protect tens of thousands of acres of wilderness, save species from extinction, and clean up polluted neighborhoods and waterways” (Nijhuis, 2014). Similarly, Kierán Suckling of The Center for Biological Diversity, an American conservation NGO, argues that

American environmental groups have for many decades expended the great majority of their resources on exactly the ‘new’ task Kareiva et al. [sic] boldly assign them ... Kareiva et al.’s ‘conservationist’ straw man would have fallen to pieces had they attempted to base it on the ongoing work of actual conservation groups. (Suckling, 2012)

Michael Soulé, one of the founders of the journal *Conservation Biology* and one of the more outspoken opponents of new conservation, called the argument that nothing is pristine a “red herring”, stating that “every ecologist in the world knows that” (quoted in Amos, 2014). As Shellenberger and Nordhaus (2004) did with the environmental movement in *The Death of Environmentalism*, Lalasz et al. (2012) construct a particular vision of conservation in order to define themselves against it. Suckling (2012) argues that having defined this vision of conservation, “they are catapulted to the equally ideal antithesis of a world with only human impacts and interests. The real world of synthesis escapes them.”

Other responses pointed out that conservation work is already moving in this direction. Academic geographer Paul Robbins, in another response published by the BTI, notes that the essay “gathers together the threads of decades of critique” of the “inherent weaknesses and contradictions in traditional approaches to conservation – human exclusion, romance with wilderness, colonialism” (Robbins, 2012). A lengthy feature article in environmental policy trade publication *Greenwire* quotes former TNC president Steve McCormick as saying that the new conservation message, while somewhat “outside the mainstream of conservation [is] a logical extension of where the movement is going” (quoted in Voosen, 2012). Tallis and Lubchenco (2014), in their *Nature* editorial calling for peace between the two camps, call for a broadened idea of what conservation can and

should be, and for embracing a diverse set of philosophies “from ethical to economic, and from aesthetic to utilitarian” (p. 27). They also note that such diversity has “a long-standing history in modern conservation” (p. 27).

The view that emerges from these perspectives and attempts at reconciliation is clearly more complex than a binary between old nature-focused conservation and new people-focused conservation. Kareiva, as several of the articles note, has a reputation for being provocative (Dunkel, 2011; Voosen, 2012). The efforts of the new conservationists are to provide an intellectual and philosophical foundation for a set of ideas often found in conservation practice but which exist in confused and frequently contradictory ways with other approaches. Nonetheless, the passionate and often vitriolic debate over new conservation shows that there are fundamental differences between the two sides. While Kareiva and the other new conservationists were certainly intending to provoke a reaction and stir debate within the field, the scathing and personal nature of many of the responses indicates the degree to which many in the conservation community feel their work is being threatened by these ideas.

Conservation discourse and practice

Communication is thus central to the debate, in terms of how the conservation message is conveyed to the broader public. Tallis and Lubchenco (2014) argue that the values in human-centric and nature-centric conservation “need not be in opposition ... They can instead be matched to contexts in which each one best aligns with the values of the many audiences that we need to engage” (p. 28). The intrinsic values of nature, in this view, should thus still be used to draw the support of the traditional conservation

audience, while “instrumental values will remain more powerful for other audiences, and should be used in the many contexts where broadening support for conservation is essential” (p. 28). This approach is certainly warranted if, as several of the responses to the new conservationists attest, conservation practice is already working for human benefit. If conservation is indeed incorporating both anthropocentric and nature-centric perspectives, but is still constructed in broader public discourse primarily in terms of the latter, then conservationists’ communication strategies should change to reflect the diversity of the work being carried out.

The divides in the conservation community are not solely a matter of communication, however, and are indicative of deeper political and ideological commitments. Conservation discourse is intertwined with, and in some senses constitutive of, conservation practice. The institutional, political, and social changes that conservation scientists and advocacy groups are able to achieve, whether legal protections for certain land areas or species, changes in corporate practice, or greater public awareness of conservation issues, are a result of the meanings with which they are associated. The capacity of conservation organizations to effect change in the world is influenced by the broader discourse of what conservation *is* – the intentions and goals that are ascribed to the conservation movement, which are shaped both by the actions of conservation groups and the wider cultural currents in which they are situated. The aim of the new conservationists is in essence to change the cultural meanings associated with conservation, and it is this which is perceived as most threatening by traditional conservationists. Adopting the new conservation approach changes the avowed public

role of conservation from protecting nature to the exclusion of humans – even if the actual work has benefits for humans – to supporting human development through protecting nature. This is less a shift of what conservation does than what it means, and points to why the reaction against Kareiva and the others was so strong even as many of their prescriptions are already being carried out under the remit of traditional conservation. Traditional conservationists fear that altering the discursive formation of conservation will have an adverse impact on their ability to achieve their goals. Already perceiving themselves as being under constant assault from the forces of development, there is anxiety that changing the meaning of conservation to a field primarily concerned with human wellbeing will only accelerate the loss of species and protected areas as well as reduce conservationists’ institutional capacity to resist these processes.

The challenge posed by the new conservationists forces those they were attacking in the mainstream conservation movement to defend their position and explain how a ‘nature-first’ approach could work in light of the changed reality brought on by climate change and the Anthropocene. Much of the unease with the new conservation approach is related to ethical concerns, and in particular the erasure of the “bright line saying that all species must be saved” (Voosen, 2012). Environmental scientist John Lemons, writing on Andy Revkin’s *New York Times* blog, argues that “Kareiva stresses only the importance of instrumentally valuing lands for human benefit but ignores intrinsic values of organisms, species, or ecosystems” (in Revkin, 2012). These critics of new conservation make the point that a world dominated by humans does not mean that human life is more valuable than other species, and that there is an ethical duty to protect species and

ecosystems particularly when their existence is threatened by human impacts. Michael Soulé, the conservation biologist and frequent sparring partner of the new conservationists, most forcefully makes the case that nature has “inherent intrinsic value” apart from whatever use humans have for it (quoted in Voosen, 2013). He pushes back against the metaphor of nature as a garden, stating that it will necessitate the removal of inconvenient species such as large predators and leave only fragile human-shaped ecosystems, and concludes that “it’s not conservation, it’s humanitarianism.” In an editorial for the journal *Conservation Biology*, he again reinforces the line between human society and wild nature, and questions

whether monies donated to the Nature Conservancy and other conservation nonprofit organizations should be spent for nature protection or should be diverted to humanitarian, economic-development projects such as those proffered by the new conservation on the dubious theory that such expenditures may indirectly benefit biological diversity in the long run. (Soulé, 2013, p. 896)

From this perspective the Anthropocene has a very different meaning. The fact that humans dominate the planet is all the more reason to protect what remains of relatively untouched ecosystems with all of their biodiversity. The recognition that humans have control over the future of the natural world should not mean shaping it for our own ends, but entails an ethical responsibility to keep intact ecosystems in all their complexity.

Fragility and resilience

One of the key conceptual areas of disagreement between the traditional and new conservationists is over the relative fragility or resilience of natural systems. As Soulé’s quotes indicate, conservation biology has generally seen ecosystems as vulnerable to

collapse if subject to disturbance by humans, whether from local factors such as the destruction of habitat or the introduction of new species, or from broader impacts such as climate change. This is disputed by Lalasz et al. (2012) who argue that “ecologists and conservationists have grossly overstated the fragility of nature” and counter that nature “is so resilient that it can recover rapidly from even the most powerful human disturbances.” They offer a range of examples of how nature is thriving in degraded environments and make the claim that “as we destroy habitats, we create new ones ... The history of life on Earth is of species evolving to take advantage of new environments only to be at risk when the environment changes again.” The ecosystems that emerge as a result of human-induced disturbances are seen as no less valuable than those in relatively untouched areas. Indeed, new conservation argues against making this distinction, with their view of the long Anthropocene having already altered planetary ecosystems over thousands of years. The vast changes of the modern area are of degree rather than kind, and species and ecosystems will continue to adapt to human interventions as they have over thousands of years. The moral certitude which accompanied traditional conservation is largely absent here, and the impact of humans is seen as being essentially no different to ice ages, asteroid strikes, or any of the dynamic processes of environmental change which characterize Earth’s geological history.

Emphasizing the resilience of nature ties into the new conservationists’ more optimistic vision. Science journalist Keith Kloor writes in an article for the magazine *Issues in Science and Technology* that while most ecologists “talk about the future morosely,” Kareiva asks “what if we thought of the Anthropocene ‘as a creative event?

What would emerge from it?’” (Kloor, 2015). Kareiva does not necessarily condone drastic interventions, but “thinks that in some cases his peers conveniently overlook an ecosystem’s resilience because it contradicts the *fragile nature* narrative that has shaped environmental discourse and politics” (emphasis in original). The concept of resilience is nonetheless subject to some critique. Lemons argues that “scientifically, the term is ‘fuzzy’” and that it is not a concept “that has much scientific utility because it is so value-laden” (in Revkin, 2012). The values attached to the notion of resilience are of concern to traditional conservationists who, again, fear that emphasizing resilience over fragility will open the door to unchecked development or ecosystem degradation if it is assumed that nature will simply ‘bounce back.’ Hayward and Martinez (2012) write that “overstating nature’s resilience ... provides an unacceptable starting point for negotiations with business interests or policy makers.” Already feeling they are fighting a losing battle, conservationists are understandably reluctant to adopt a discourse which suggests the problems may not be as urgent or serious as they have been claiming.

The notion of “nature as resilient” links to a broader discourse of resilience that has gained considerable currency in recent years. Though the term is used in a multiplicity of different ways, it emphasizes the capacity of systems (both social and natural) to withstand or recover from disturbances which are viewed as endemic to late modern society. Walker and Cooper (2011) argue that “what the resilience perspective demands is not so much progressive adaptation to a continually reinvented norm as permanent adaptability to extremes of turbulence” (p. 156). The concept is seen as empowering by some communities – indigenous groups, for instance, have claimed at

global climate change forums that “their cultures and traditions are inherently resilient, and that heightened vulnerability [to climate change] is a result of external agency” (Nakashima, Galloway McLean, Thulstrup, Ramos Castillo & Rubis, 2012, p. 42). However, there are also questions about the modes of governmentality that a widespread adoption of resilience discourse might entail – for instance, whether it privileges climate adaptation at the expense of mitigation, and whether the expectation of constantly living with risk shifts responsibility to individuals to manage it and at least partly absolves from responsibility the agents or institutions which caused it (Evans & Reid, 2014).

As O’Brien (2014) points out, “resilience in its increasingly normative invocation risks becoming a legitimization of – even a spur to – increasing turbulence” (p. 3). Though it emerged out of ecosystems science in the 1970s, resilience is often associated with neoliberal forms of governance and is “abstract and malleable” enough to be applied to a variety of social and ecological realms including high finance, defense, urban infrastructure education, and sustainable development (Walker & Cooper, 2011, p. 144). The new conservationists’ explicit adoption of resilience ties conservation to this broader discourse. While their specific claims about the resilience of nature are grounded, albeit sometimes contentiously, in ecosystems research, it also makes conservation compatible with the broader capitalist political-economic order and incorporates many of the values therein. Proponents of new conservation argue that this is necessary in order for conservation to have a meaningful impact, while opponents counter that adopting the values responsible for much environmental destruction compromises the fundamental mission of conservation beyond recognition.

New conservation and old capitalism

The discourses used to define conservation publicly have significant implications for its politics and practice, and open different pathways for what conservation makes possible. Most individuals and organizations involved in conservation are careful not to use overly political language in defining their position, instead insisting that whatever prescriptions they advocate are derived scientifically. Conservation nonetheless has unavoidable political implications, relating as it does to how the institutions of human society interact with the rest of the natural world. The longstanding tensions between science and advocacy can be seen throughout the history of the conservation movement, from TNC's split from the Ecological Society of America, to conservation biology defining itself as a "crisis discipline" (Soulé, 1985), up to the present debates. Conservation as practiced for most of the 20th century had a wariness, if not outright opposition, towards the dominant economic order, positioning itself as a check on the excesses of industrial modernity. Even organizations like TNC which were ideologically compatible with capitalism and courted the support of corporations still saw themselves as protectors of what would otherwise be destroyed if the economic system were left to its own devices. New conservation instead aims to integrate the goals of conservation into the dominant economic paradigm, realigning the mission of conservation such that it is compatible with the global political economy.

The recognition of the Anthropocene and the adoption of the perspective that human and natural systems have converged into a global order affecting all planetary processes means that the system must be shifted from within. There is no 'outside' on

which to stand critiquing the impacts of development, no higher law of nature or pre-industrial past to serve as a benchmark for guiding our actions, no “unified cosmos that could shortcut political due process by defining once and for all which world we all have to live in” (Latour, 2011, p. 8). The idea of choice figures prominently in new conservation discourse, the idea that humans inevitably impact the natural world, so the key question is to decide *how* rather than *whether* these impacts will be felt. Rather than attempting to stop what is undesirable, the primary issue is how to engineer what is desirable, as Rosner (2013) points out:

Not long ago, it would have been heretical to hear a conservationist talk about letting some species vanish. But in the new, proactive world, consciously making such decisions is a whole lot better than letting them happen by default. How we choose remains an open question, yet it’s increasingly apparent that we do in fact need to make choices.

Kareiva and Marvier (2012) echo this in an essay entitled ‘What is Conservation Science?’ (which they deliberately position as an update to Soulé’s (1985) much-cited ‘What is Conservation Biology?’), writing that “Given the magnitude of human impacts and change, conservation cannot look only to the past. Instead, it must be about choosing a future for people and nature” (Kareiva & Marvier, 2012, p. 968).

Such choices depend heavily on values. As human and natural systems converge in the Anthropocene, the institutions which govern human society must expand to account for their impact on nature. In the case of 350.org and the climate activists (see Chapter 4), this involves expanding the institutions of democratic governance and the direct role of citizens in deciding how to shape the future. The new conservationists, by contrast, turn to the market as the most influential force in the global political ecology.

Rather than stand in opposition to capitalism, new conservation has chosen to view it as a net positive, a system which has lifted millions out of poverty and, for better or worse, reshaped the world. Kareiva and TNC's CEO Mark Tercek, writing on the TNC website, argue that "for all its flaws, capitalism has been an engine of innovation and improvement in the quality of life in many nations – and corporations are major drivers and shapers of today's civilization" (Tercek & Kareiva, 2014). By attempting to integrate conservation into the global capitalist order, they hope to harness this power to again reshape the world. New conservationist writers, Kareiva in particular, make the point that corporations are key actors in environmental processes:

If one considers the planet earth and asks what are the keystone species for our global ecology, it is hard to conclude anything but major global corporations. These major corporations influence land use, energy flow, nutrient cycling, and the hydrological cycle at a level that surpasses any biological species. Given this reality, if one is to manage for a sustainable planet, it makes sense to work with and influence the behavior and actions of corporations. (Kareiva, quoted in Revkin, 2012)

This approach obviously generated strong reactions within the broader conservation community. Robbins (2012), in his critique on the BTI website, points out that the structural incentives of capitalism are in many cases the primary cause of the environmental destruction against which conservationists have traditionally fought, and argues that "the surpluses that allow returns for investors, owners, and others have historically rested on finding ways to undercut, underinvest, and undervalue both labor and nature." He chides the new conservationists for their "insufficiently articulated vision of the economy" as they do not say how they will change the structure of the economy for pro-conservation purposes when "the reasons for uneven economic development

coincide with those for environmental destruction” (Robbins, 2012). Soulé, quoted in Voosen’s (2013) *Chronicle* feature, views the adoption of the rhetoric of neoliberalism as “surrender.” Similarly, Pimm, interviewed by Kloor (2015), argues that TNC’s desire for corporate engagement – and corporate money – leads to “an unwillingness to ask hard questions of big donors, or companies in which the organization has stakes as part of its \$2.1-billion in shares, mutual funds and other investments.”

Kareiva (2012) dismisses the “adolescent view that corporations are not to be trusted.” He deploys a ‘bad apple’ argument in his contention that corporate harm to the environment is not systemic: “Yes, some corporations do harm and behave badly, but so do conservationists on occasion.” He further argues that the “sincere and passionate conservationists” who are nervous about new conservation’s emphasis on corporate partnerships “tend to interpret my views as a political ideology – as though I am some sort of fawning capitalist. I actually have come to this conclusion from a purely scientific perspective” (quoted in Revkin, 2012). Kareiva’s position of claiming to be apolitical in his embrace of corporations stems from the idea that they are such important actors in the global ecosystem that it is impossible to achieve any meaningful change in this system if they are ignored. Yet this does not fully account for the specific ways in which corporate actors are to be engaged and the overall outlook of new conservation. The activists of 350 also recognize the tremendous power of corporations in global ecology, but rather than working with them seek instead to limit corporate power through building citizen involvement and strengthening democratic institutions. Both approaches are valid

responses to environmental challenges, and are in some ways complementary, but both are driven by the value systems of their respective proponents.

Ecosystem services

The value system of the human-centered new conservation is based on identifying and quantifying the benefits that nature provides to people. This approach comes from a field known as Ecosystem Services, wherein the benefits that natural systems provide to humans – whether financial, health-related or recreational – are analyzed and compared to determine how conservation or restoration efforts should proceed. From being a relatively obscure academic pursuit in the 1990s, ecosystem services has since grown rapidly in environmental and conservation discourse. Voosen (2013) writes that it is now the “defining frame of conservation science,” displacing biodiversity as the primary metric used by conservation practitioners. Redford and Adams (2009) argue that ecosystem services has become “the central metaphor within which to express humanity’s need for the rest of living nature” (p. 785). By emphasizing the importance of ecosystems to human well-being and economic output, advocates of this approach aim to make conservation more relevant to corporations and policy-makers and make it easier for conservation goals to be integrated into business practice. The concept has been widely deployed in infrastructure planning – for instance, in calculating the benefits of the natural water filtration provided by forests in the catchment area for a city’s water supply, or the role that coastal wetlands play in mitigating the damage caused by large storms. Increasingly this involves putting a dollar figure on the value that natural processes provide in comparison to the alternatives – clearing the forest and building a

water treatment plant, or destroying the wetland and building a seawall, in the previous examples. Advocates intend to demonstrate the previously uncounted value that nature provides to human endeavors, the so-called ‘natural capital.’ In so doing they seek to identify ‘win-win’ scenarios where governments or businesses can save money while also sparing natural areas from development.

The ecosystem services approach fits well with the ideas of new conservation. If conservation in the Anthropocene does not distinguish between human and non-human nature, then it makes sense to base conservation practice on the benefits of conservation to people. While the ecosystem services approach forms the basis of new conservation’s value system, the two are not reducible to one another. The ecosystem services approach has a broader reach and is more widely accepted (though still controversial) throughout conservation science and practice than is new conservation. Indeed, new conservation arose in part as a way of providing some direction and philosophical coherence to a field which was quickly adopting an ecosystem services approach without, as Redford and Adams (2009) argue, always having a clear idea of where it would lead.

Many of the objections to new conservation are echoed in criticisms of ecosystem services, particularly those relating to the reduction of conservation goals to economic metrics. The principle critique of the ecosystem services approach is that it is not effective in cases where economic and conservation imperatives do not overlap. In an article published in *Nature*, biologist Douglas McCauley (2006) argues that ecosystem services strategies “offer little guidance on how we are to protect the chunks of nature that conflict with our interests or preserve the perhaps far more numerous pieces of nature

that neither help nor harm us” (p. 27). Critics often point out that while ecosystem services models work in some instances, economic and conservation imperatives often push in opposite directions and in such cases it is usually the profit motive that wins out (Redford & Adams, 2009; Ridder, 2008).² While ecosystem services is often justified on the basis that it fits into existing political-economic frameworks and can be used as a basis for political decision-making, McCauley (2006) points out that politicians “are just as accustomed to making decisions based on morality as on finances” (p. 28). It should also be noted that taking an anthropocentric view of conservation does not necessarily mean embracing ecosystem services either. Marris (2011), a key figure in popularizing the ideas of new conservation, echoes many of the above critiques of ecosystem services in the short section she devotes to the issue. She contends that most conservationists who advocate for an ecosystem services approach actually believe in the intrinsic value of biodiversity, but “see ecosystem services as a way to get it protected when the people in charge don’t share their feelings” (p. 166). The ecosystem services concept is thus “better conceptualized as a tool to achieve other goals rather than a goal unto itself” (p. 167), part of the ‘menu’ of options open to conservationists to pursue once the idea of returning to a pristine wilderness is abandoned.

Nonetheless, the ecosystem services approach has been adopted as the primary conservation strategy by TNC, and it fits in well with the organization’s longstanding business-friendly approach to conservation. TNC’s chairman and CEO Mark Tercek, who joined the organization in 2008, spearheaded the increasing focus on ecosystem services and natural capital. In the book *Nature’s Fortune: How Business and Society Thrive by*

Investing in Nature (Tercek and Adams, 2013), Tercek writes of how he applied his Wall Street career and experience as an investment banker to nature conservation:

I started asking the same questions about ecology as my MBA training had taught me to apply to corporate finance: What is nature's value? Who invests in it, when and why? What rates of return can an investment in nature produce? When is protecting nature a good investment? Isn't conservation really about building natural capital? (Tercek & Adams, 2013, p. xii)³

In TNC he found what he saw as the ideal organization to pursue these objectives, writing that "TNC reminded me of an investment bank – but one whose client was nature itself" (p. xii). Acknowledging the unease that many environmentalists have about "putting a value on nature," Tercek argues that while the intrinsic values of nature are important, there are "other, perhaps less lofty but no less important reasons" for conservation and that "valuing nature does not mean replacing one set of compelling arguments for conservation with another, but it provides an additional and important rationale for supporting the environment" (p. xiii). Bringing a business perspective to conservation allows for the role nature plays in economic activity to become more visible. Tercek notes the complications of the word 'nature' and states that the human/nature dichotomy needs to be broken down. The goal of this approach is to make businesses "realize that conservation – protection of nature – is a central and important driver of economic activity, every bit as important as manufacturing, finance, agriculture, and so on" (p. xiii).

Tercek, aiming for a broader audience outside the conservation community, is less confrontational than Kareiva in his calls for a change in approach to conservation. The primary focus of the book is the contribution of private enterprise to environmental

protection. The book does argue, though less forthrightly than Kareiva, for a conception of conservation with humans at the center:

The ‘Isn’t nature wonderful?’ argument can leave the impression that nature offers solely aesthetic benefits, or worse, that nature is a luxury only rich people or rich countries can afford. We need to get business, government, and individuals to understand that nature is not only wonderful, it is also economically valuable. Indeed, nature is the fundamental underpinning to human well-being. ... Saving nature means saving wild species and wild places, but it also means saving ourselves. (Tercek & Adams, 2013, pp. xiv-xv)

Most of the examples and case studies Tercek presents in the book are fairly straightforward demonstrations of the ecosystem services approach, such as restoring oyster beds and coastal wetlands to protect cities from storms, or putting a price on carbon emissions to better reflect their environmental impact. Underlying this is a recognition of the need to change the way humans think about their role in the environment, at a time when “the scale of human activities is no longer dwarfed by the planet itself” (p. 196). Rather than view nature in only sentimental terms or as a collection of commodities, Tercek argues that

we depend on nature in far more complex ways than we knew, and natural capital is not inexhaustible. Conservation and business need a more sophisticated and nuanced calculation, one based on sound financial principles and a deeper appreciation for how nature contributes to economic and ecological well-being. When conventional economics leaves natural capital out of the equation, both ecosystems and the economies built upon them are imperiled. (p. 196)

He again stresses the intrinsic values of nature protection, and suggests that these values are crucial for the ecosystem services approach to function, arguing that “the case for investing in nature is inspiring and optimistic” (p. 197). He also writes that we are entering “an age of care, or stewardship” where humans must play an active role in

shaping the environment, responsible for creating and maintaining the “vibrant and life-sustaining” (p. 198) natures on which we depend.

Pristine nature in TNC’s public campaigns

Where Tercek’s book moderates the more radical-sounding elements of new conservation, TNC’s outreach and publicity materials present an even more confused picture. If the idea of a human-centered conservation in a world where pristine nature does not exist spurs such controversy and ill-feeling amongst conservation professionals, the reaction of the broader public is likely to be similarly contentious. An organization like TNC can ill-afford to alienate its supporters. As the biggest environmental nonprofit in the United States, it relies heavily on financial support from a large number of individual contributors. Over half of TNC’s revenue in 2015 came from dues and contributions, with 46% of this – over a quarter of a billion dollars – coming from individual donations and bequests (TNC, 2016a). A further 12%, or \$65 million, comes from corporate donors, with most of the remainder from foundations. In presenting itself to the public, particularly its donors or those inclined to donate, TNC obviously has to communicate a message and a vision of conservation which resonates – and which motivates people to give money. The idea of saving natural spaces or endangered species has a powerful resonance with a lot of people. This is especially so in contrast to the language of new conservation and its emphasis on humans and hybrid natures, and the economic cost-benefit analyses of ecosystem services. It should be no surprise then that discourses of ‘old conservation,’ the protection of wild places from human interference, should still be present in TNC’s efforts to reach the public.

It is useful to distinguish between two main forms of public communication disseminated by TNC. One is the marketing and promotional material, which has the principal goal of encouraging people to donate to the organization. This includes TNC's advertisements, emails to members, and the main pages of its website. The other mode of communication is more informational, describing the Conservancy's work and operations. This includes the deeper sections of the website, blog postings written by TNC's leadership and scientists, and the organization's membership magazine. While still serving the purpose of promoting TNC and encouraging donations, these communication activities present a less visible account of the organization's activities but one that is more reflective of their actual work.

The marketing and promotional material TNC uses to solicit donations draws heavily on ideas of pristine nature and untouched wilderness. The organization uses the slogan "Protecting Nature. Preserving Life." While vague enough that it can be applied to a variety of conservation activities, the use of the words 'protecting' and 'preserving' imply a fragile and vulnerable nature which is to be kept in its original state. This becomes more apparent when examining the text and imagery in TNC's marketing. An internet advertising campaign from 2015, created by ad agency True North, features the tagline "There is no second Nature. \$50 can help save the only one we've got" and a large button with the words "DONATE NOW." The images in two of the ads feature scenes of nature; one of forested hills shrouded in mist, the other a low-angle photograph of a grizzly bear walking through a forest. A third advertisement has an image of a monkey in a tree with its arm caught in a plastic six-pack holder. The ads present a view

of nature as a single, unified entity under threat from human destruction. Emphasized is the fragility of nature and the possibility of its disappearance – nature degraded as a result of human influence ceases to be ‘nature’ anymore, and once lost it cannot be replaced. This is in contrast to the discourse of new conservation which, although stressing the importance of healthy ecosystems, dispenses with the notion of a pristine, fragile nature which must be kept separate from human activities. New conservation instead promotes a vision of natures plural, of adaptable and resilient ecosystems which are no less worthy because they exist as a result of human influence.

The idea of protecting pristine nature from destruction by humans is seen in most of TNC’s communication materials where the aim is primarily to solicit donations. The home page of the organization’s website states their mission: “Conserving the lands and waters on which all life depends” and that “Every acre we protect, every river mile restored, every species brought back from the brink, begins with you” (TNC, 2016b); the latter phrase being repeated on the site’s main donation page. Though broad enough to be interpreted in line with new conservation, the emphasis again is on protecting nature under threat. For people unaware of new conservation thinking, such statements do little to change the perception that conservation is still about, as Kareiva and Marvier (2007) derisively put it, “clinging to a vision of pristine wilderness” (p. 55). A similar perspective is evident in TNC’s fundraising emails which get sent to members two to three times per week. These messages frequently emphasize the vulnerability of threatened ecosystems and the necessity of acting quickly to preserve them. A series of five emails in June 2015 called for urgent action to protect and restore Appalachian

Spruce forests. Under the banner heading “Help Restore Shattered Landscapes,” the emails talk of how humans “destroyed this iconic landscape” and the need to “bring back forests like this to their former majesty” (TNC, email, June 23, 2015). There is no mention of the societal benefits of the forest or the ecosystem services it provides, with the focus on restoring the landscape to its state before humans intervened. The aesthetic beauty of forest is a major theme, along with its innocence which is derived from its separation from humans. Another email stresses the vulnerability of forest creatures while also again drawing on aesthetic appeals:

Your gift will help animals like hares, black bears and flying squirrels, as well as the saw-whet owl – one of the cutest creatures you've ever seen. About seven inches long, with a reddish-brown back, a white belly, they even remind some people of kittens. (TNC, email, June 27, 2015)

There is no question of the ‘how’ of nature conservation; the course of action is always self-evident. Nature is either an unspoiled wilderness apart from human intervention, or a degraded landscape in which case the role of humans is to restore it to its former, pristine state.

These fundraising messages emphasizing the fragility of unspoiled wilderness are not necessarily a misrepresentation of TNC’s activities. The organization does conduct a large amount of ecosystem restoration work. As Voosen (2012) indicates, there has been some internal skepticism within TNC about Kareiva’s philosophy and the overall direction of the organization. Protecting and restoring natural habitats – however defined – is an important part of TNC’s work and is not something that new conservationists would be against. Clearly, though, there is a disjuncture between how TNC’s leadership talks about conservation and how the organization represents itself to its donors. What is

mostly as stake here is the discourse, the assumed relationships between humans and the natural world in TNC's communications. This is not to say that it is only the way TNC talks about conservation which is disputed; much of the conservation work discussed by Tercek in his book and by Kareiva and others deeper in TNC's website fit squarely in the new conservation paradigm – but this work is not mentioned in fundraising campaigns. When soliciting donations, TNC selects certain aspects of their operations, for the most part those to do with ecosystem restoration, and represents them in a certain way, emphasizing the beauty and fragility of nature and its separation from humans.

There have been some attempts by TNC to change the discourse in its outreach and fundraising to reflect the ideas of new conservation and ecosystem services. As described above, Tercek's book and associated publicity strongly pushed the idea of ecosystem services and integrating conservation into corporate practice. While still paying homage to the intrinsic values of nature, Tercek advocated for a vision which put the material (usually monetary) values of nature at the center – and which in so doing highlighted the interconnections and interdependency of humans and nature rather than their separation. TNC has engaged in other outreach efforts which move away from the traditional conservation approach.

TNC's Massachusetts office commissioned a series of advertisements, along with a website, on the theme of 'The Future of Nature.' The advertisements, created by Portland, ME advertising agency Kemp Goldberg, were displayed in outdoor and public transit locations in Boston in 2013, and well as in Boston editions of high-end national magazines. According to TNC's then-New England Marketing Director, the campaign

was intended to “address the false choice between human wellbeing and conservation, and insist that we can have healthy people and healthy nature” (Fitzpatrick, 2014). The ads ask “What is the #futureofnature?” and present two options seemingly in opposition – People or Wildlife, Loggers or Forests, Fishermen or Fish, Ecology or Economy. Each option has an empty check-box and is overlaid on an image representing it. The ads then invite people to “talk about it at futureofnature.org”.⁴ The website presents the same images on a rotating display, but each pairing is accompanied by a short paragraph discussing how both options are essential. For example, the Loggers/Forests image states that

We all need healthy forests, for the water they filter, the carbon they store and more. That's why The Nature Conservancy protects wild forests. We also support sustainable forestry that provides jobs, useful products and the revenues that can help landowners keep forests as forests. Your support helps us keep forests healthy and productive for wildlife and people from Maine to the ancient forests of Chile. (TNC, 2016c)

The passage contains hyperlinks (indicated by underlined words) to other parts of the TNC website showing examples of the organization’s work in these areas. A section under the heading “Explore Solutions With Us” further reinforces the idea that human welfare and nature protection should not be seen as separate. It states that “too often, we put ourselves in the position of making choices between a healthy economy and a healthy natural world” and that “when people remember that nature is all around us, and that we are part of it, we can let go of polarized thinking and find solutions that work” (TNC, 2016c). Though an initiative of TNC’s Massachusetts office and limited to this region, the campaign represents an innovative effort to encourage people to think differently about the meaning of conservation. By stressing the importance of protecting threatened

lands and species while also highlighting the linkages between these natural systems and human society, the campaign is attempting to gently introduce ideas of new conservation to a public which may be skeptical.

In early 2015, American public television broadcaster PBS screened a five-part nature documentary series entitled *Earth: A New Wild*. The series is hosted by former TNC lead scientist M. Sanjayan, and TNC's work is featured in several episodes (Sanjayan, 2015). The show's stated aim is "to explore how humans are inextricably woven into every aspect of the planet's natural systems," and present human-nature interactions in a new way:

Sanjayan reveals that co-habitations with animals can work – and be mutually beneficial. ... Distinguishing itself from nearly all other nature films, however, the series turns the cameras around, showing the world as it really is – with humans in the picture. (PBS, 2015)

TNC played an active role in promoting the show, creating a microsite within their website under the name 'A New Hope for a New Wild.' The site is organized into sections corresponding to the themes of the show's episode – Plains, Oceans, Forests, Water, and Our Home. Each section contains stories of how TNC's work helps both human and non-human communities thrive together. The Plains section, for instance, talks about them as "a place where these fragile landscapes work because *we* are a part of them" and uses the example of how cattle ranching in the American West can help restore prairies (TNC, 2015b). The site (and the show) is deliberately crafted to present a positive, uplifting message. An email to supporters about the site states that "we want to share the optimism that we have for our future, and tell our stories in a new way" (TNC, email, January 2, 2015). According to digital design firm Viget, which created the site,

TNC “strived to tell a new narrative, with a more positive outlook on conservation and the future of the earth to contrast the negative messages often associated with the state of conservation” (Viget, 2015). As well as showcasing TNC’s work, the site also contains a substantial amount of user-generated content, allowing visitors to share their own stories about how they are “co-existing with nature in a positive way” (Viget, 2015) and a photo competition where people could submit images encapsulating the idea of the ‘new wild’ where “people and nature flourish together” (TNC, email, January 2, 2015).

As with the Future of Nature campaign, the New Wild site (and the documentary series with which is it associated) is intended to shift common perceptions of what conservation is and does. The image-heavy site is overwhelmingly dominated by natural landscapes, most of which also include people or human structures: a young boy on horseback on a vast Mongolian steppe; a scientist in a small boat taking samples above a coral reef. The aesthetic beauty and inherent value of nature are emphasized, but the active role of humans in managing and caring for nature is the primary focus. For the most part the site does not talk directly in terms of natural capital or ecosystem services, or the ways nature can be of direct material value to humans. There are oblique references to how humans and nature can “live and thrive together” (TNC, 2015c) or that “it’s just as valuable to protect nature for people as it is to protect it for its intrinsic beauty” (TNC, 2015d).

The site was intended, according to its designers, as “the hub for TNC and user stories alike that tell positive anecdotes of man and nature thriving together” (Viget, 2015). There is a facility for people to submit their own stories about how they are

“keeping hope alive” in the new wild. These are all tweet-length (144 characters) and relegated to a single page, which was removed in May 2015, while the stories which showcase TNC’s own work are by far the main focus. The one visible source of user-generated content on the New Wild site is a photo competition, in which people are encouraged to submit their “best images of our human connection to nature” (TNC, 2016d). The overwhelming majority of images featured on the site are shots of wildlife or scenic landscapes, with no people or human structures visible. Most of the few images which do include people are in the context of outdoor recreation – kayakers on a scenic river, a hiker standing under a waterfall. While the entry guidelines for the competition are fairly broad, the difference between the user-submitted photos and the images used by TNC to illustrate the concept of the New Wild is an indication that TNC’s audience primarily appreciates nature for its separation from the human world, an unspoiled place to experience in contrast to civilization.

Obtaining an accurate picture of the views of TNC’s supporters and donors is obviously not possible. The fact that TNC, which spend almost \$65 million on fundraising in 2015 (TNC, 2016a), almost exclusively draws on a discourse of a pristine nature when soliciting donations suggests that such a message resonates most clearly with their target audience. This is not surprising given that this discourse has long been dominant within the conservation movement and the jarring shift that the ‘humans first’ ethos of new conservation appears to represent.

This conflict is occasionally made visible. In 2011 TNC’s members’ magazine (called *Nature Conservancy*) published a profile of Kareiva entitled ‘Beyond Man vs

Nature' (Dunkel, 2011). While including plenty of praise for his efforts and approach, the article emphasizes Kareiva's "heretical" views and the controversy he has created in the conservation field. The article opens with Kareiva's admission that

he's "not a biodiversity guy." That's right. The ecologist who leads some 500 scientists at the worldwide organization whose mission statement extols safeguarding "the diversity of life on Earth" does not believe species preservation should be Job One. What deserves higher billing? "The ultimate goal," Kareiva says, "is better management of nature for human benefit." (Dunkel, 2011)

A link to the article was posted on TNC's Facebook page, and appears to have provoked a strong reaction amongst some Conservancy supporters. Of the sixty-six comments posted in response to the link, thirty-three are negative while only seven express some degree of support for Kareiva and his ideas (TNC, 2011a). A number of people comment that the values of the conservancy no longer match their own, and several threaten to withdraw their support. One writes that "if my beliefs about environment no longer match the goals of TNC I suppose I will stop donating my money" (Hohne, 2011), while another states that "If this is now the thinking of the Conservancy, you can count me as an ardent opponent" (Sitler, 2011). The most prominent objection commenters have is to Kareiva's assertion that human needs should come before those of other species, with several chiding the "arrogance" of this worldview and stating that the needs of humans and other species should be regarded equally: "we animals are all in this existence together" (Noon, 2011); "animals have a right to the earth as much as we do" (Nicholson, 2011). Such views are only representative of people who took the time to comment. That said, the negative reaction was noticed and a TNC staffer posted in the comment thread seeking to reassure people about the organization's evolution: "we do speak out more

forcefully now about the need to take people into account. But we still save a lot of nature” (TNC, 2011b).

Conclusion

Clearly there are inconsistencies in how TNC talks about its operations and nature conservation more generally in different venues. This can result in conflict when these inconsistent approaches come into contact with one another, particularly when the differences are addressed as bluntly as Kareiva does. Somewhat ironically, one of the reasons Kareiva cites for a human-centered approach to conservation is that it will reach new audiences and get more people involved in TNC’s work. Dunkel (2011) summarizes Kareiva’s view that the conservation movement is “certain to conk out if we keep talking about biodiversity, says the guy who shuns the word. So Kareiva will keep preaching people: conservation of the people, by the people, for the people.” The risk, of course, is that this approach drives away the Conservancy’s existing supporters who see an organization which no longer reflects their values. This is obviously recognized by TNC’s marketing staff who for the most part continue to emphasize saving fragile nature, particularly when soliciting donations. Attempts by TNC to reconcile the competing positions, or at least talk about human wellbeing alongside nature preservation, are more subtle and cautious than Kareiva’s pronouncements but the organization is making some steps towards trying to shift people’s thinking.

Although the contrast between the versions of conservation can appear jarring, particularly when the differences are presented in such a stark and provocative manner as Kareiva does, there is a certain amount of overlap between new conservation and the idea

of traditional conservation practice as it is articulated by TNC in their marketing materials. This is primarily seen in the concept of stewardship. Though originating in Christian discourse, the idea of stewardship has been widely applied in both religious and secular approaches to environmentalism. It centers on the notion that nature should be cared for and looked after by humans, its resources able to be used for human needs but with this a responsibility that it be left in a viable state for future generations (Palmer, 1992). TNC's founding ethic was out of a concern to protect land from development and destruction, and preserve natural ecosystems for future generations. The idea of responsible stewardship is evident in most of the organization's fundraising appeals. The subject line of one of the spruce forest restoration emails discussed above states that "This is Our Responsibility Now" and that "the future of degraded landscapes like these is up to you" (TNC, email, June 6, 2015). Humans, in this view, have a duty of care, to look after nature and to restore landscapes we have damaged back to their 'original' pre-human state.

The new conservation approach also views humans as responsible for nature, but the major difference with earlier approaches is that there is no pre-existing benchmark to which nature must be restored. Tercek sums up his book stating that we are entering

an age of care, of stewardship. As stewards of the land have long known, with care even badly damaged places can be renewed, perhaps not as exact replicas of what they were, but vibrant and life-sustaining nonetheless. (Tercek & Adams, 2013, p. 198)

Dunkel (2011), paraphrasing Kareiva's position in *Nature Conservancy* magazine, writes that focusing on the benefits nature provides people will make us "better stewards of nature in the long run." Traditional stewardship presumes that humans are taking care of

the environment on behalf of a higher power, whether it be God or ideas of a balanced and unified nature which is separate from the human world and cannot tolerate any disruption. New conservation, while keeping the idea of care and responsibility for nature, removes the notion of our actions being subservient to a higher law – indeed, “we are as Gods, and we might as well get good at it” (Brand, 1968).

This is not the radical break it might seem. As Palmer (1992) points out in her critique of the concept of stewardship, as it loses its overtly religious connotations in environmental discourse, it becomes less clear on behalf of whom humans are acting as stewards:

stewardship often seems to be used in political discourse without anything corresponding to a ‘master.’ ... ‘steward and ‘master’ may become telescoped into one, and when spoken of, stewardship actually means a form of mastery, in that we decide when the rest of the natural world should be used, and for what. (p. 84)

The claim of new conservation to reorient conservation work around human priorities is more of an evolution of prior trends than a departure. While the romantic and aesthetic aspects of conservation remain prominent particularly in public-facing discourse, TNC’s history shows a steady progression towards an increasingly anthropocentric conservation. Palmer notes that stewardship is most often described in financial terms; the “idea of resources, which we must use carefully, look after as if for someone else, encourage to grow” (p. 72). TNC’s embrace of biodiversity as a key conservation metric allowed for nature to be viewed as a collection of resources, and this paved the way for the emergence of the ecosystem services approach and the valuing of nature according to its benefits to humans. Institutionally, TNC’s moves from simply buying up land to an

ecoregional conservation strategy meant recognizing the role that humans play within ecosystems. The organization's non-confrontational strategy of working closely with corporations also lent itself to valuing nature for human purposes.

Despite these shifts in TNC's approach, the ways in which the organization communicated about conservation continued to draw extensively on the discourse of pristine, unspoiled nature. This understanding of how conservation should work, that nature needs to be protected from human influence, remained as pervasive amongst conservation professionals as it did with the public more broadly. The debates which erupted over new conservation reveal how conservation practice had become increasingly disconnected from the ideas that conservationists commonly used to justify their work. This was exacerbated by a number of broader trends: the emergence of climate change as a dominant environmental issue, the rise of the idea of the Anthropocene and the growing recognition that returning nature to a pre-human state is impractical if not impossible. The aim of the new conservationists is in part to reorient the field with a new outlook to better align it with these changes and with changes in conservation practice often not reflected in conservation discourse; their grenade-throwing a deliberate effort to provoke debate and reflection. Amos (2014) quotes Kareiva's co-author Michelle Marvier: "You don't have innovation and real change when everybody's saying, Hey we're doing such a great job."

Nonetheless, despite claims that it is based on science, the new conservationist discourse does entail political commitments which go beyond simply recognizing humankind's inescapable impact on the planet. While debates over the reasons for

conserving nature go back at least to the early 1900s, the field has historically defined itself in opposition to forces of development and profit-seeking. Much of the resistance to new conservation arises from a concern that adopting the rhetoric of anthropocentrism and defining conservation work in terms of what it provides to humans will erode hard-won gains. The continued advocacy by conservationists for the intrinsic values of nature can be seen as strategic as much as it is ideological. As several participants in the debates point out, many of the approaches advocated by new conservationists are already used in conservation work, and there were repeated calls for the need for a diversity of approaches in achieving conservation goals. But by publicly standing up for the intrinsic value of nature, conservation advocates are making claims for the continued relevance of their field against the relentless advance of economic efficiency and market-driven growth which necessitated the emergence of nature conservation in the first place. The financialized language of ecosystem services and the emphasis put by Kareiva on working with rather than against corporations risks, in this view, subsuming the efforts of conservationists under the logic of markets and corporate practices.

The need for new political formations to better account for the influence of humans over planetary processes and non-human ecosystems is not unique to new conservation. Indeed, this commitment is also shared by both 350's climate activists and the Breakthrough's ecomodernists. There are, though, key differences in how new conservation sets out to achieve this. Unlike ecomodernism, which reinscribes the boundary between humans and nature, new conservation recognizes the attachments and entanglements and encourages political uptake of the complex interdependencies in the

Anthropocene. And unlike the climate activists, who seek to minimize the influence of corporations in environmental subpolitics, new conservation acknowledges the immense power of corporate actors in shaping the state of the planet but instead pushes them to do better through working within existing political-economic structures.

The idea of choice is key to the new conservationist approach – choosing a future for people and nature in line with a particular set of values. If this means choosing to let certain species go extinct or habitats get destroyed, this is better, goes the argument, than letting it happen by default. The magnitude of human impacts on the planet is such that such outcomes are inevitable, but bringing nature into politics (writ broad) at least allows some control over them. How to decide which bits of nature are worth saving is a question of values, and the approach of new conservation to making such decisions – to value what is best for human needs, according to the ecosystem services provided – comes with certain priorities and assumptions about social organization. That TNC is at the center of this movement is not surprising given their long history of working with corporations and taking a non-confrontational, market-based approach to conservation. Still, the tensions and debates both within and outside of the organization show the extent to which the idea of a wild, non-human nature still has a hold on people's imagination and can evoke a powerful response. For those like Soulé (2013), acknowledging human impacts in the Anthropocene should drive us to protecting what little we have not yet destroyed instead of viewing nature as a side effect of improving human wellbeing. Despite the calls for a diversity of approaches to conservation, these tensions are unlikely to be resolved so easily especially given the power dynamics involved. A strong human-

centered conservation movement and widespread adoption of ecosystem services by corporations would have many benefits, both for humans and (certain) other species. But much would be lost if the representatives of nature in the politics of the Anthropocene speak only with a human voice.

¹ Pimm's remarks were made in a book review in the journal *Biological Conservation*. The journal's editors later apologized for the "inappropriate language" (Primack & Broerse, 2014, p. 288), while Pimm himself was entirely unrepentant (Ferguson, 2014; Nijhuis, 2014).

² McCauley (2006) also makes what amounts to an ecomodernist argument against ecosystem services, writing that "conservation based on ecosystem services commits the folly of betting against human ingenuity" (p. 28). Human technological innovation will often produce cheaper or more efficient means of providing the services once obtained from nature, which can reduce society's overall ecological impact – "decoupling" in ecomodernist terms. This marks one of the key splits between ecomodernist and new conservation approaches, which otherwise appear similar. Ecomodernism promotes a separation of humans from nature, while new conservation sees humans and nature as inextricably intertwined (see Sagoff, 2015 and Chapter 5).

³ Although co-authored with environmental writer Jonathan Adams, the book is written in the first person from Tercek's point-of-view.

⁴ The futureofnature.org domain is no longer active, but as of 2016 the site remains online at <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/massachusetts/future-of-nature.xml>

Chapter 7 – Conclusion

I am weary of the old and tiresome and banal question “Why save the wilderness?” The important and difficult question is “How? How save the wilderness?” (Abbey, 2006, p. 93)

The three case studies discussed here represent different approaches to conceptualizing and addressing the same problem: in a world where human actions play a decisive role in shaping the physical environment of the planet, how do we create a politics which can channel these impacts into constructing a viable future? The global-scale environmental crises that threaten to cause so much disruption, climate change and its associated impacts principal among them, are an outcome of human society; mostly Western industrial society. They are the unexpected outcomes, the externalities, of the political and economic systems which spawned them. These systems were not designed with such externalities in mind, and as such they are unable to incorporate and address them when they arise. The processes that result in climate change are distributed throughout society, the results of uncountable actions in the everyday lives of millions of people across the globe – often unaware of their impacts and unable to make any meaningful change even if they are.

Subpolitical processes, the private actions which have together have enormous public implications, are for the most part not subject to the direct control of democratic

political institutions. They are nonetheless influenced by broader cultural currents, and it is here that advocacy groups who recognize the challenge of the Anthropocene seek a place to intervene. This is not only about how people communicate about the environment, the words and symbols used to define the world around us and our place within it. Rather, it is the constitutive function of discourse which is at issue; the interaction of communicative acts and power structures, the ways in which the actions that result in climate change are reinscribed discursively, which campaigners seek to disrupt. Important here is the process of boundary-making: defining or redefining who and what is included and excluded from political concern, and calling into question the established cultural categories of nature and society. The Anthropocene is often depicted as humans taking control of natural processes and systems. What this means is that these natural processes and systems have to be integrated into human social organization, as nature-society boundaries are broken down and redefined. Establishing control over these social processes thus becomes equally important. One way or another, human actions are shaping the future of the entire planet, at present largely by forces outside of any form of deliberate oversight or control. The challenge for climate change campaigners is in articulating *how* to make these choices, in order to gain the ability to more consciously construct a future for the planet and its inhabitants.

This dissertation sought to understand these processes through answering two broad research questions. Firstly, what is the contribution of advocacy groups to public discourse on climate change and politics in the Anthropocene? Secondly, what are the implications of these different discursive formations – not only for how humans relate to

the natural world, but the extent to which they challenge or support social structures bound up in these relationships and alter the power dynamics of who gets a say in deciding the future of the planet?

Each of the three organizations analyzed here approached the problem in a different way, and with differing implications for the democratic governance of planetary impacts. As risks are inseparable from their representations, the ways in which environmental risks are defined, represented and circulated has implications beyond each organization's messaging or tactics. The risk definitions which become hegemonic in particular spheres affect individual and institutional responses to perceived crises. The discourses advanced in the three case studies have very different implications and potential material impacts. In an age where human actions are inextricably tied to biophysical processes, risk discourses form an integral part of an ongoing feedback loop between human impacts on the environment and their effects.

The critical discourse analysis of organizational material and news media coverage allows for the political commitments of the three approaches to be interrogated, and their relationships to political and economic power structures to be traced. The analysis drew from a wide range of sources, including three books by key figures associated with the organizations; campaign and publicity material including their websites, 59 blog postings and articles, and 100 emails to members; and news media coverage including 188 newspaper and magazine reports and op-eds (see Chapter 3). The following sections recapitulate the key findings from the three chapters, and then evaluate them according to the comparative benchmarks identified in chapter 3: their

conceptualization of nature-society boundaries, their attitudes towards dominant socio-political institutions, the contextual level at which climate change is presented and attribution of systemic or individual responsibility, and the role of the public in addressing environmental issues and building a common future.

Summary of case studies

For the climate activists of 350 (Chapter 4), direct intervention in subpolitical economic processes is their major aim. The organization sees climate change not as the inevitable outcome of modernity but as arising from an economic and social system designed to benefit particular interests at the expense of others. Their social justice-centered approach emphasizes the need to change these structural incentives; otherwise the same inequalities will be reproduced in any responses to climate change. The Fossil Free divestment campaign identified an important example of the type of systemic issue that contributes to climate change and yet remains largely free from oversight or accountability: that large institutional investors such as university endowments and pension funds help finance fossil fuel extraction through their investments in extractive industries. Positioning fossil fuel companies as the primary enemy of the campaign serves an important strategic function in that it not only provides a target to be defeated, but also illustrates the lack of democratic influence over the corporate practices that have a huge impact on the public.

So while the divestment campaign is ostensibly about economic issues, this is a means towards broader political transformation, with the contention that economic structures and institutions should be responsive to public concerns. This accounts for the

heavy emphasis on the moral dimensions of climate change by the campaign. The major moral transgression that the divestment activists highlight is not the direct impacts of climate change or humanity's collective environmental sins, but the influence of corporate power over democratic processes. This is seen through their efforts to remove the 'social license' of fossil fuel companies so as to exclude them from the political process. The campaign thus deploys a politicized morality, where the moral urgency is linked to political change and the debate is about competing visions of social organization – a choice between the current system where unaccountable corporate power shapes the future of the planet, or an alternative where such decisions are made in a more democratic fashion. Changing these structures of governance and control are 350's fundamental political goals, hence why the campaign does not define itself in terms of specific policy outcomes such as passing a carbon tax. The process of movement-building is often positioned as an end in itself by the campaigners, creating a force that can challenge the subpolitical power of corporations through collective mobilization. Legislative action is seen as important, but the campaign first seeks to change the structural conditions within which this takes place so as to make it more responsive to citizen demands. Climate legislation would thus be an outcome of a broader push towards creating a new politics. Divestment as a tactic has a number of advantages for this type of campaign: it allows for the mobilization of citizens at a local level across the country, in a way that lobbying Congress directly does not, and the hundreds of separate campaigns targeting different institutions allow for victories to be claimed and give the broader movement a sense of momentum.

The Breakthrough Institute (BTI; Chapter 5) is also attempting to redraw political boundaries to encompass human impacts in the Anthropocene, though as a think-tank they are less concerned with achieving direct political change. The organization and its leaders, Michael Shellenberger and Ted Nordhaus, seek to change the discourse around environmental issues amongst policy-makers and thought leaders. Their approach is characterized by an enthusiastic embrace of the Anthropocene, with a positive view of the potential for human innovation and technology to create a better future. From their initial rise to prominence following the publication of *The Death of Environmentalism* in 2004 up to the release of *An Ecomodernist Manifesto* in 2015, the BTI have positioned themselves in opposition to what they view as the mainstream of environmentalism. Casting themselves as a more hopeful, pragmatic and realistic alternative, the BTI has launched attacks on environmentalists: as hypocrites who denounce modern technology as anti-environmental and seek to deny it to poor countries, while at the same time benefiting from it personally. This approach strengthens their organizational identity and helps gain media attention, and broadens their appeal to an audience who may be skeptical of associating with environmental groups while still concerned about climate change. This also highlights one of their central contentions which has been a feature of their output over the organization's lifetime: that climate change and other global-scale environmental crises are conceptually different to other issues with which the environmental movement is concerned, and should be treated differently. Rather than seeking to minimize human impact on the environment, the ecomodernism welcomes humans' role as the dominant force on the planet and argues that we should maximize our

potential to shape it into the world we wish to live in. While initially erasing any distinction between humans and nature, more recent work has sought to recreate these boundaries, with the argument that dependence on technology and innovation can fulfill the modernist promise of a separation from the natural world.

The BTI's reinstatement of the human-nature boundary, together with the emphasis on technology over politics, has large implications for democratic governance in the Anthropocene. Technology is not politically neutral, and there is a risk that existing inequalities will be replicated if broader social structures are not on the ecomodernist agenda for change. Most of the specific proposals put forward by the BTI and its allies call for a continuation of the existing trends and processes which come with modernization, such as agricultural intensification, urbanization, and resource use efficiency. Along with its compatibility with existing institutional formations and capitalist economic structures, an ecomodernist future threatens to recreate the system that resulted in environmental destruction in the first place. Nonetheless, through their various interventions into public debates over environmental issues, the ecomodernists do force other actors to reconsider their assumptions and beliefs.

If the Anthropocene forces a reconceptualization of the boundary between humans and nature, this clearly has significant implications for groups whose mission is to protect nature from the threat of human development. The Nature Conservancy (TNC; Chapter 6), as one of the oldest, largest and most establishment-oriented conservation organizations may seem an unlikely candidate to lead a revolution in conservation theory and practice. Yet over the last several years, TNC has been at the center of often

acrimonious debates over the goals of the conservation movement. Led primarily by TNC's chief scientist Peter Kareiva with the support of CEO Mark Tercek, the 'new conservation' promoted by the organization upends traditional approaches to conservation. It argues that in a world where a pristine, untouched wilderness cannot be said to exist, the goals of conservationists should be to manage nature in line with the best outcomes for humans. Despite seemingly being in opposition to the rest of the conservation movement, this approach is the culmination of several trends that were already well-established within conservation. The idea of ecosystem services, which quantifies the value that natural systems provide to humans, is increasingly used by conservationists to build support for habitat protection amongst policymakers and businesses. And the increasing recognition of the pervasive impact of humans throughout the biosphere, and with it the growing discourse of the Anthropocene, had led to debates over what the ultimate goals of conservation should be. The advocates of new conservation, arguing that these trends were incompatible with old ideas of nature conservation, extended them into creating a new framework for conservation practice.

As with the BTI, the confrontational tone of new conservationist writing was intended to provoke debate and critical reflection. Still, the vitriolic backlash it sparked – and the reluctance of TNC to incorporate these ideas into its own marketing and fundraising materials – suggests the discursive power that ideas of nature and wilderness still hold. Conservationists traditionally positioned themselves as a bulwark against the continued expansion of human impacts on the non-human world; to suggest that nature and society are now one and that nature should be entirely at the service of humans seems

to many in the conservation movement less like progress than surrender. There are political implications to the new conservation agenda, and the embrace of ecosystem services and desire to work with corporations in advancing conservation goals risks making the field subordinate to a market-based discourse where corporate interests become decisive in conservation practice.

Comparisons across cases

The nature-society binary

The Anthropocene brings with it a destabilization of the boundaries between the categories of society and nature. Beyond the dependence of humans on the environment, or the impacts of human actions on ecosystems, the Anthropocene necessitates a recognition of the interconnectedness of the two. Earlier discourses of human-nature relationships remain prevalent and retain influence amongst the three organizations' publics, and they adopt various strategies in defining their approach in line with or in opposition to prior conceptualizations. In all three cases, the increasing entanglements between the human and natural worlds are part of the organizations' guiding philosophies, though this manifests in different ways. The fossil fuel divestment activists try to avoid any talk of nature in their campaigning. The major moral transgression identified by the campaigners is fossil fuel companies' influence on politics. The impacts of climate change, when mentioned, are put in terms of its effects on humans. The campaign resists associations with traditional environmentalist concerns. The branding guidelines prohibit the use of the color green (the campaign's official colors are blue and

orange) (350.org, 2014b). And while Fossil Free, and parent organization 350, forms alliances with other environmental groups, they also active in working with social justice organizations and unions, and linking the campaign to fights to overturn racial, economic and gender inequalities. Still, through their actions, the divestment campaigners seek a reconfigured politics in which human impacts on the environment are taken into account; their major focus is on the human institutions which can bring about these changes. Founder Bill McKibben's writing more directly acknowledges the entanglements between human society and the non-human world. His book *The End of Nature* (1989) was among the first to articulate what we now call the Anthropocene, and his 2010 book *Eaarth* is named for the 'new' planet humans have created.

Despite the acknowledgement of the erosion of human-nature boundaries, the position expressed by McKibben and the climate activists more broadly tend to see this in a negative light. This view is closest to the 'fall' narrative of mainstream environmentalism (Latour, 2012), in which human impacts on nature are to be avoided to the greatest extent possible. McKibben (2010), for example, calls for a retreat from globalism towards more locally-based economies and a reduced dependence on technology. While setting itself apart from traditional environmentalism, the climate activist movement holds on to the idea of an essential nature which is – or should be – separate from human concerns. Not often stated explicitly, it is assumed that any actions humans take in the biosphere should be in the service of restoring it to what it was before it was altered by human civilization. This is evident in the name of the organization 350,

which aims to reduce the level of carbon dioxide in the atmosphere to something approaching pre-industrial levels.

The Breakthrough Institute, as noted above, has had shifting ideas about human-nature relationships. However, their approach is always based on the idea that humans should embrace their dominance over planetary systems, with the key question of determining how to best channel our impacts. This recognition of humans' role, along with the BTI's desire to distance themselves from the mainstream of environmentalism, is at a broad level shared with 350, although they take it in very different directions. These broad commonalities resulted in collaborations early in the history of both organizations, though as discussed in Chapter 5 the tensions soon became evident. The BTI's shift back towards emphasizing the intrinsic values of nature (though within an anthropocentric worldview) may have a strategic aspect to it. As TNC's example shows, such values remain popular with the public. The organization uses ideas of pristine, untouched wilderness even as key players insist that such a concept has outlived its usefulness and is irrelevant to contemporary conservation concerns.

All three case studies show in different ways the tensions inherent in the concept of nature in the Anthropocene. Though humans dominate the planet and it is conceptually impossible to separate a non-human natural world from human society, the idea of nature remains popular – and discursively powerful. There is a long history in conservation and environmental discourse of the idea of protecting nature from humans, from 19th century romanticism through the writings of Thoreau, Muir, Abbey and up to Bill McKibben, as well as through the work of organizations like the Sierra Club and TNC. The idea has

been a driver of much conservation and environmentalism, and though the latter especially focused on harms to humans as well as the natural world, the idea that such efforts are working in the service of something bigger than mere human concerns has been and remains important.

The human-nature split is largely a creation of Western modernity, as Latour (1993) shows, and even if it had no basis in fact could still be treated as such. Modern risks in the Anthropocene render this untenable, as we have seen. But this does not mean the concept of nature can, or should, be abandoned; it just has to be renegotiated in light of current circumstances. This is not easy, of course, and TNC has seen the pushback that happens when they try this both from the public and the conservation community. The BTI's emphasis on preserving nature likely comes from a similar impulse. Nature, as Latour (2015) notes, can serve to shortcut the political process by establishing a power beyond the reach of human institutions. However, removing nature from the equation and saying that all actions should be for the benefit of humans often means supporting dominant institutions and the political-economic status quo. The value of the idea of nature may then be in offering a justification for action which is outside of these institutions and is not constrained by their requirements.

Attitudes towards dominant institutions

Addressing climate change means confronting the economic and political structures which gave rise to its causes and continued impacts. Again, the three case studies have different approaches to confronting these issues, although with certain commonalities. The divestment campaign is the most forthright of the three in terms of its

willingness to take on political and economic interests. The campaign's work within established institutional channels – selling off fossil fuel stocks, urging politicians to take actions – are a means towards a broader systemic upheaval which would see a realignment of structural priorities and incentives. The actions of the campaigners are situated within a wider critique of capitalism and the harms and inequalities it produces, and they link the campaign for climate justice to other systemic issues such as racial justice and poverty.

The BTI is not as oppositional towards the political-economic status quo. The writings of Shellenberger and Nordhaus do stress the need for a conceptual rethinking of institutional formations, though most of the concrete policy proposals they support take place within the bounds of existing structures. This can be seen from their early focus on policy goals such as vehicle emission standards, up to more recent efforts in accelerating modernization processes in developing countries. Their political positioning has shifted over time. *The Death of Environmentalism* and *Break Through* were situated explicitly on the (American) political left, part of an effort to restore muscular progressive ideals to the political landscape during the George W. Bush presidency. This along with the commitment to rethinking the goals and processes of environmentalism led to some environmental justice advocates being initially supportive of Shellenberger and Nordhaus' work, though this was not to last. In more recent output the BTI, while eschewing political labels, has positioned itself more towards the center, writing of the need for government-supported research and development of new energy technologies but for the most part taking a depoliticized and technocratic approach to change. While

not explicitly endorsing laissez-faire or neoliberal economics this approach does tend to leave power relationships and systemic inequalities largely unquestioned (except where they can be blamed on environmentalists). Their embrace of the concept of the 'long Anthropocene,' the idea that human impacts on the global biosphere started with the emergence of agriculture rather than the industrial revolution, also deflects responsibility from institutional arrangements and onto humanity as a whole.

TNC is again very clear in its institutional commitments. The organization has a long history of a largely apolitical and non-confrontational approach, working with corporations and large stakeholders on conservation initiatives. This carries over into the debates around new conservation. As with ecomodernism, the approach expresses a general support of the current economic system, but with a greater emphasis on market-based approaches and the importance of corporations. At times, this is positioned as a logical conclusion to draw for scientific rather than ideological reasons, in terms of the need to work with the large actors (i.e. corporations) which play such a large role in climate change and environmental impacts more generally. While a valid approach, this is certainly not inevitable, and leaves certain things unaccounted for – such as what caused environmental problems in the first place.

Systemic versus individual responsibility

The global scope of climate change, along with its diffuse causes and uncertain impacts, mean that it is difficult for advocates to communicate to their publics and to find a point of intervention on which to base their campaigns. All three organizations recognize the need for systemic rather than simply individual action in order to properly

deal with environmental risks. For the divestment campaign, as an activist group they seek to directly mobilize people to take action against the corporate interests they see as blocking progress. The model of networked localism employed by 350 in this and their other campaigns allows people to get involved in very local actions in their communities, which are then linked together as part of a global movement. Climate change is presented as a global threat, and the impacts – when mentioned – are related to the harms faced by people around the world. But the small, localized campaigns offer a venue for people to get involved, which builds the campaign's political power and attempts to counter the feelings of helplessness many people experience in the face of climate change (Lorenzoni et al., 2007).

TNC and the BTI do not involve the public in their advocacy to the same extent as 350. While the BTI's early efforts focused on reinvigorating the American left, their more recent focus has been on fomenting a shift in ideas amongst policy-makers and opinion-leaders. The ecomodernists and the divestment campaigners both focus on the need for institutional shifts rather than individual lifestyle or consumption changes. But where the divestment movement calls for a radical realignment of political and economic structures, ecomodernism advocated more incremental shifts within existing institutional formations. TNC takes a similarly non-oppositional approach to politics, with the discourse of ecosystem services generally concordant with free-market economics as discussed above. The role of the public is for the most part limited to providing donations, and TNC's website offers examples of individual actions people can take to reduce their environmental footprint through their purchasing habits. The pristine nature

seen in TNC's public communications position the issues at a remove from people's everyday lives, and while new conservation is expressly human-centric in its approach to conservation it remains largely depoliticized. Both the ecomodernists and the new conservationists tend to generalize human impacts in the Anthropocene to humanity as a whole, while the climate activists point to the role of specific economic and political formations.

The role of the public

A key question which underlies all of these issues is how the three approaches propose to decide on the direction of human impacts in the Anthropocene. Acknowledging humanity's dominant position on the planet requires taking responsibility for our impacts on humans and non-humans alike. This has important implications for democratic governance; how the Earth is brought into politics and how societies decide on a common future for the planet. This poses dramatic challenges for politics as it is usually practiced, and the three areas discussed above begin to show just how complicated governing for the Anthropocene will be. The renegotiation of human-nature boundaries means that politics will have to expand to encompass new entities as humans' role in the biosphere becomes unavoidable (e.g. Latour, 2010). The dominant political and economic structures of modernity will likewise have to be reconceptualized, especially in terms of the subpolitical processes which are influential in shaping the conditions for life on Earth yet are not subject to democratic oversight. And the global nature of environmental risks in the Anthropocene and the proliferation of interconnections between various human and non-human systems at different geographic

and temporal scales exposes the limitations of political governance based around the nation-state (Beck, 2009).

The divestment activists are the most forthright of the three case studies in defining a place for the public in the politics of the Anthropocene. They attempt to subject human impacts on the Earth to greater democratic control, and their focus on issues of social justice and inequality challenges power relationships. The BTI likewise seeks greater control over human impacts. In much of their output, however, particularly more recent work in the shift to ecomodernism, the public is not given an especially prominent role. The emphasis on technological development over politics elides disparities in access to new technologies, and control over how they are implemented. For the new conservationists, the insistence on human-centric conservation would seem to open a space for the public. However, as it is presented by key figures within TNC, the new conservation discourse is also largely depoliticized and aligns with existing political-economic structures.

Politics in the Anthropocene requires making choices about the type of world we wish to create. All three organizations put forward a vision of a possible future where humanity's impacts on the planet are directed to more beneficial ends. Issues of choice and control, however, relate not only to society's impacts on the non-human, but to the institutions which determine those impacts. The relative lack of attention, in particular from the ecomodernists and new conservationists, to democracy and participation threatens to reinforce power inequalities and injustices. For the climate activists, how to transform or recreate social institutions to take account of subpolitical processes will be

an ongoing negotiation. No single strategy or discourse or political structure will alone be adequate for comprehending the vastly complex undertaking of shaping the future of an entire planet. Yet accepting the ‘dreadful burden of choice’ that our impacts are in any case unavoidable speaks to the need for processes to ensure that our choices are deliberate and informed.

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