

How to save the world:

The ideologies of four ENGOs and their discursive constructions of climate change

by
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Abstract

This case study investigates the role of ideology in the discursive constructions of climate change produced by four environmental nongovernmental organizations (ENGOS) concerned with anthropogenic climate change and its effects. Using a neo-Foucauldian approach to discourse analysis, the case study describes the distinctive discursive construction of climate change produced by each organization and identifies the ideology reflected in its discourse. The study finds that all four ENGOS are consistent in the view that climate change results from a rise in greenhouse gases caused by humans, but that each organization constructs the phenomenon of climate change in a unique way to achieve its specific ideological objectives. These constructions of climate change, achieved through various rhetorical strategies, are intended to shape our understanding of the issue.

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List of Abbreviations

EF! – Earth First!

EEN – Evangelical Environmental Network

ENGO – environmental nongovernment organizations

IPCC – International Panel on Climate Change

UNEP – United Nations Environmental Programme

NC – The Nature Conservancy

NCC – The Nature Conservancy Canada

Chapter One

Introduction

Environmental issues regarding a range of concerns from pollution to population growth have become prominent in recent decades, leading to the development of new scholarly disciplines and the implementation of environmental policies by different levels of government. Perhaps the most prominent of these issues—global warming—has caused widespread concern internationally, and is viewed by many as threatening ecosystems, entire species, and our quality of life. The pervasiveness of environmental issues in political, economic, and social realms has led to an increased involvement of a variety of social actors, including governments, businesses, communities, religious groups, and environmental nongovernmental organizations (ENGOS). While global warming has made its way onto political agendas across the world, perceiving this issue as simply a material phenomenon would be to ignore the role of discourse in shaping our perceptions of climate change (Hulme, 2009). This study investigates how ENGOS, as prominent actors in the climate change debate, discursively construct climate change to advance distinct ideological positions.

The role of ENGOS in the climate change debate has been noted for their success in both garnering public attention and influencing policy (Andresen & Gulbrandsen, 2003; Carpenter, 2001; Tarlock, 1992). ENGOS have played an important role in bringing environmental issues to political agendas internationally, setting global environmental standards, as well as influencing domestic policy in many nations (Jamison, 1996; Tarlock, 1992). ENGOS have also been prominent at international climate conferences, contributing to negotiation sessions, presenting special topics seminars, reporting events, providing commentaries, providing policy advice, and participating in demonstrations and protests (Carpenter, 2001). Their presence at these

international events is seen to hold governments accountable and to increase public awareness of the threat of climate change.

Though ENGOs involved in the climate-change debate all seek to protect the Earth's natural systems, these organizations are not a homogenous group. The ENGOs involved in the debate include a variety of social actors, including religious organizations, student groups, political activists, research institutions, and policy think tanks, to name a few (Andresen, 2003; Carpenter, 2001). Though these ENGOs are mobilized around the issue of climate change, they represent a span of ideological positions, ranging from radical philosophies to conservative perspectives. A perceived strength of ENGOs is that they are beyond the motivations of financial gain or political interest (Morphet, 1995, p. 508). While it may be true that ENGOs are not motivated by political affiliations, they are motivated by diverse ideological positions, as the study presented in this thesis will demonstrate.

ENGOs do not merely transfer knowledge about climate change from science to the public; they play a role in shaping the public's understanding of the physical phenomenon of climate change. The ideological assumptions of these organizations results in their constructing the issue of climate change in purposeful and meaningful ways. The idea of a socially constructed 'environment' is contested, particularly across disciplines, but many scholars have investigated this discursive merging of natural and social worlds (e.g. Castree & Braun, 1998; 2001; Cantrill & Oravec, 1996; Demeritt, 2001; 2002; Waite, 2010). This social constructionist view of nature does not deny the physical reality of environmental issues, but maintains that "the environment about which we all argue and make policy is the product of the discourse about nature..." (Herndl & Brown, 1996, p. 3). The constructions of climate change have material

effects on reality, increasing public awareness, implicating social responsibility, and establishing the appropriateness of particular solutions.

A study by Stenberg and Räisänen (2006) investigates the competing representations of the 'environment' in a case study of 'green building'. The research focuses on the ways in which ideology influences the language used by key social actors involved with this issue, describing how contending discourses compete to influence environmental policy. The findings of the study suggest that meaning is ascribed to key terms based on the ideology of the different social groups, which in turn prioritizes certain ideas while limiting others. The social groups involved in environmental debates create environmental discourses which encode "the norms, ideologies, and epistemologies of the relevant groups that have created them" (p. 70). Rather than interpreting the multiplicity of discourses as restricting, Stenberg and Räisänen suggest that the ambiguity may allow for more creative solutions to environmental issues.

Research has also explored the production of environmental knowledge by ENGOs in environmental debates, focusing on the role of science in the discourse of these traditionally non-science actors (e.g. Demeritt, 2001; Eden, Walker, & Donaldson, 2006; Jamison, 1996). A study by Eden, Walker, and Donaldson (2006) examines the role of ENGOs in waste pollution concerns by investigating the construction of expertise and socially distributed knowledge. The findings of the study suggest that ENGOs value scientific discourse, but also work to legitimate knowledge from other sources, resulting in a renegotiation of the authority of science. ENGOs appropriate science for their own purposes, being "pragmatic and versatile in their use of science for purposes of legitimation: where it is useful, they draw on classical notions of expertise and where it is not, they begin to develop and legitimate their own" (Eden, Walker, & Donaldson,

2006, p. 1073). These findings suggest that ENGOs are strategic in their construction of environmental issues, using a variety of expertises to address the issues effectively.

ENGOs are important social actors in the climate change debate, influencing a range of other actors, from governments to families and individuals. ENGOs employ diverse types of knowledge and rely on a range of strategies to shape the public's understanding of climate change for the ENGOs' own purposes. The remarkable influence of ENGOs and their discourse in the global climate change debate indicates a need for further research exploring how these important social actors are implicated in shaping the issue of climate change. Cantrill and Oravec (1996) describe the importance of such research: "The only hope we have of ever preserving our environment is collectively to understand and alter the fundamental ways we discuss what we continually recreate" (p. 2). Our perceptions of climate change, as discursively constructed by ENGOs, have material effects, making it important to understand how these social actors influence our understanding of this issue.

This study investigates the role of ENGOs in the discursive construction of climate change, focusing on the influence of the varying ideologies within the environmental movement. The research will explore the discourses of four ENGOs, representing a range of ideologies within environmentalism, to identify the distinct constructions of climate change advanced by each ENGO, and to determine the functions of its construction. This study will also identify the rhetorical strategies employed by each of the four ENGOs in its efforts to advance its representation of climate change to be accepted as 'truth'. The research will be guided by the following research question, which is further divided into several sub-questions:

How do the four ENGOs discursively construct the phenomenon of climate change according to their ideological positions, and for what purposes?

- a. How is the ideology of the ENGOs visible in their discourses?
- b. What are the constructions of climate change and 'nature' established in these discourses?
- c. What rhetorical strategies do ENGOs use in constructing climate change?

The findings of the study suggest that each ENGO constructs the phenomenon of climate change in a unique way to achieve specific ideological goals. These constructions are achieved through various rhetorical strategies, and are intended to shape our understanding of climate change, including how it should be managed and who is best able to do this. Further, a comparison of the discourses of the four ENGOs will highlight the potential for collaboration among the organizations.

The remainder of this thesis is organized as follows: First, a background of environmentalism establishes the ideological roots of the movement, which remain evident in today's ENGOs. Next, a discussion of the theoretical foundation for the study first outlines the particular features of social constructionism, environmental discourses, rhetoric, and ideology that are necessary for understanding the ENGOs' discourses, and then describes more specifically how concepts associated with these theories were used in my analysis. The findings of the study are then presented with reference to the research questions presented above. Finally, the conclusion reviews the larger argument of the study and suggests implications for future research and for the communication practices of ENGOs.

Chapter Two

Background: A History of the Environmental Movement

To fully understand the role that ENGOs have played as part of a larger environmental movement in the contemporary debate over climate change, one needs to be aware of certain developments in the history of environmentalism in North America. The ENGOs under investigation in this study "are inescapably in dialogue with historical trends and events as well as contemporary realities" (Wilkinson, 2012, p. 26). The history of modern environmentalism presented below has been shaped to set the social and cultural context for understanding the variety of discourses and ideologies found in the ENGOs under study in this thesis.

This section describes the role of ENGOs in the history of environmentalism, beginning with a brief overview of their involvement and continuing to highlight influential events and developments throughout. It first presents a chronological history of the shift in environmental concerns from 'conservationism' to 'environmentalism', pointing out the changing perceptions of the relationship between society and nature that prove integral to environmental ideologies. The remainder of this section discusses climate change as both a physical and socio-political phenomenon to provide further context for this study of ENGOs. The history presented here addresses the origins of strategies from conservation to activism, and traces the inclusion of scientific and political realms in environmental debates. Such a discussion demonstrates the conditions leading to the establishment of the ENGOs selected for this study, as well as their ideological stances and resulting discursive strategies.

A history

The influential role of ENGOs in the environmental movement since its conception in the 1960s has been noted by many scholars (e.g. Clark, 1995; Jamison, 1996; McCormick, 1991;

Morphet, 1996; Tarlock, 1992; Raustiala, 2001). As environmental concerns have shifted since the earlier days of environmentalism, so has the focus of ENGOs. Ann Marie Clark (1995) describes how "the economic, informational and intellectual resources of NGOs have garnered them enough expertise and influence to assume authority in matters that, traditionally, have been solely within the purview of state administration and responsibility" (p. 507). ENGOs adapted to address the mounting concern for global issues such as sustainable energy and climate change, rather than the local issues previously occupying the movement.

Beginning even in the earliest days of environmentalism, ENGOs have driven the movement. In the first half of the 20th century, environmental concern took the forms of preservation and conservation. The former movement, led by Sierra Club founder John Muir, held that the environment must be protected from human exploitation and revered as a sacred place. Muir recognized that humans would need to use natural resources to live, but was opposed to destruction for the sake of economic growth. In contrast, conservationists believed that nature should be used to meet human needs and promote economic growth, albeit in sustainable ways, a perspective first attributed to Gifford Pinchot, Chief of the United States Forest Service.

The shift from 'conservationism' to 'environmentalism' began in the 1960s. Issues such as pollution and population growth began to supersede local concerns of land conservation. In particular, the emerging role of scientific authority in environmental concerns had a significant social impact, compelling society to recognize the negative ecological impact of widespread technology-based industrialism (McCormick, 1991).

A key catalyst for the environmental movement was Rachel Carson's (1962) well known book, *Silent Spring*. Describing the damaging effect of pesticides on the environment and their impacts on human health, Carson's bestselling manifesto brought scientific and technical

concerns about the environment to a public audience. During this time the divide between nature and society became less distinct as people began to realize that human activity was impacting the environment.

Another important publication, Lynn White's (1967) controversial article in *Science* magazine, "The Historical Roots of our Ecologic Crisis," reflected a new concern for environmentalism on the part of organized religion. White's article, which presented a critique of the Judeo-Christian belief in dominion over nature, provoked a response from Evangelicals, who argued that the Bible declares Christians 'stewards', or care-takers, of God's creation. This stance opposed the notion of dominion as exploitation, and would later initiate the evangelical notion of "creation care." Despite its biblical foundation, evangelical involvement in environmentalism is generally consistent with the trends of the secular American environmental movement.

In the 1960s, beat poets, nature writers, hippies, and student activists escalated public concern for the environment into a burgeoning social movement. The beginning of environmentalism was more than the desire to change human activity and reduce the impact on the environment; it was a move away from an ideology of industrialism. This decade saw the rise of biocentric attitudes, which maintained a relationship of equality between human and nonhuman life. The relationship between humans and nature became a central concern, a matter that remains of divided opinion within the movement today (McCormick, 1991).

This new outlook on the connection between humans and nature prompted what Jamison (1996) calls the institutionalization phase of environmentalism. In addition to the presence of ENGOs, by 1973 most industrial countries had developed government agencies and legislation to assess environmental concerns. Beyond government, the influence of the new environmentally friendly mindset could be found in education and research. Religious groups also undertook

intellectual endeavours, leading to increased awareness of environmental issues among evangelicals and the beginnings of evangelical environmental institutions. These intellectual developments created the foundation for the activism of evangelical environmentalists. The environmental movement began gaining momentum as conservationism became too conservative, environmental activist groups, such as Earth First!, began to form a more cohesive philosophy, and the number of social actors involved in environmental issues continued to grow (Jamison, 1996).

In 1972, the first UN Conference on the Human Environment was held in Stockholm, Sweden. A defining moment in the history of environmentalism, this event had important implications for environmental politics internationally by focusing on global issues and raising awareness of 'environmental justice', linking environmental degradation and its hindrance to development. The Stockholm Conference resulted in a move towards rational and global thinking, the establishment of NGOs as important voices for environmental issues, and the founding of the United Nations Environmental Programme (UNEP) (McCormick, 1991). The UNEP would later develop the International Panel on Climate Change (IPCC), an international organization considered by many ENGOs to be a source of authority on the state of the climate crisis. Following Stockholm, ENGOs collaborated to discuss the implications of the conference, forming liaisons with humanitarian NGOs and other environmental organizations (Morphet, 1996). Likewise, the UN Conference on Environment and Development (UNCED) marked an important turn for ENGOs as the largest gathering of environmental organizations at that time (Raustiala, 2001). These events were crucial for establishing ENGOs as influential social actors by demonstrating the range of concerns and groups effected by climate change globally.

The late 1970s marked yet another change in the modern environmental movement as concern about industrial pollution became an issue of energy and entered the realm of politics. Environmental groups were expected to incorporate this new type of expert knowledge in order to maintain their place in discussions involving the environment. Thinking in terms of political strategy, in an area that had previously been dominated by social and scientific interests, was an important consideration for ENGOs in order to remain relevant in environmental debates (Jamison, 1996).

Late in the 20th century, a different category of actors emerged who were focused specifically on providing advice regarding scientific research, politics, and economic growth. These think tanks, such as the Pembina Institute, became important sources of information for policymakers in developed countries. Also hoping to influence governments, the Evangelical Environmental Network (EEN) was established, and released an "Evangelical Declaration on the Care of Creation" (1994). This document has been central to the evangelical environmental movement, stating the duty of Christians to care for the earth and those suffering from environmental degradation (Wilkinson, 2012). Recognizing the fundamental role of science in environmental issues, the Joint Appeal of Science and Religion was founded in 1990, proposing that the solution to issues such as climate change would stem from both science and religion.

This period also saw the materialization of professional functions of ENGOs operating more like large corporations than the previous activist organizations (Jamison, 1996). Though these businesslike organizations proved productive in many regards, there was concern that the spirit of the original movement had been lost, replaced instead by capitalist interests. Providing a means for protecting both environment and economy, 'sustainable development', a term coined in the Brundtland Report in 1987, became the focus of governments, corporations, and international

organizations. Sustainable development meant that present needs could be met without compromising the quality of life for future generations.

Environmental planning began to invade businesses and homes, and global issues such as climate change and ozone depletion took precedence over local concerns (Jamison, 1996; McCormick, 1991). As with mainstream environmentalism, the evangelical environmental movement also shifted focus to the global issue of climate change into the 21st century, launching the Evangelical Climate Initiative in 2006. As the effects of climate change became visible to the public, increasing concern for the future of the Earth has driven this issue into corporate practices, government policies, and individual activities.

Climate change

Though the roots of post-war environmentalism stem from the preservation vs. conservation debate, the current environmental movement is perhaps most associated with the issue of climate change. Perceived by environmentalists to be an urgent concern, climate change has dominated much of the public environmental arena. This issue, though undoubtedly a physical phenomenon, is also a socio-political concern involving an increasingly diverse range of social actors. Among these actors are ENGOs, whose roles have adapted to address the changing environmental concerns, but who have remained integral to the movement throughout.

For the last two decades of the 20th century, and now into the 21st century, the threat of climate change has preoccupied the environmental movement, and through the media has remained a major concern for the public and for policy-makers. Climate change has received much attention due to conflicting perceptions of the cause of global warming. Scientists are in agreement that the temperature of the Earth's surface is becoming warmer, but are unable to

reach agreement on whether this is caused primarily by human activity or natural causes, a point of contention frequently addressed by ENGOs.

Warming and cooling of the Earth's temperature has occurred throughout history, resulting in brief ice ages and glacier melting. These previous changes in temperature were considered the result of natural causes. While some scientists maintain that global warming is the result of the natural cycles of the Earth, many climate scientists do not believe this to be the case, drawing a connection between the increasing temperature and the effects of the Industrial Revolution. Informed by developments such as ice core drilling, satellites, and tools for measuring carbon dioxide, climate scientists, though not able to prove with absolute certainty, believe human activity has caused the increase in the Earth's temperature since the age of industrialism (Hughes, 2009). Through an effect similar to the process of a greenhouse, an increase in anthropogenic greenhouse gases has been linked with the increase in the surface temperature of the Earth, which results in damaging effects, such as flooding, drought, and dangerous storms (Karl & Trenberth, 2003).

Reports produced by the IPCC relay the growing concern of scientists regarding the consequences of anthropogenic global warming, with the latest report in 2007 declaring that climate change is "very likely due to the observed increase in anthropogenic greenhouse gas concentrations." This concern has led to the implementation of the United Nations Framework Convention on Climate Change and other environmental initiatives, such as the Montreal agreement and the Kyoto Protocol, to limit the production of greenhouse gases. These initiatives were met by mixed reactions, with some countries reluctant to agree to limiting production of these gases. Though beginning with good, albeit often ambitious, intentions, initiatives to combat climate change have been widely criticized by ENGOs for lack of enforcement and results.

Climate change remains an important global issue, associated with effects such as dramatic changes in precipitation levels, drastic elevation of sea levels, density loss in glaciers, devastating natural disasters, and the destruction of forests, wildlife, and oceans. It is a complex issue involving topics ranging from sustainable energy to social justice. The growing concern over a rising climate created grounds for ENGOs to mobilize around a specific issue, and their involvement has continued to increase (Carpenter, 2001), making ENGOs powerful social actors in the issue of climate change. Four such ENGOs are the focus of this study.

Chapter Three

Theoretical Background and Analytical Framework

This chapter describes the theoretical foundation necessary for analyzing the discourse of the ENGOs under study in this research. The chapter is organized into two major sections: a review of the literature and the analytical framework. The first of these will discuss the literature relevant to this study by including perspectives on the social construction of the environment, environmental discourses, rhetorical strategies commonly found in these discourses, and environmental ideologies. The second major section describes the specific concepts from the review of literature that I used in analyzing the data.

Theoretical background

Social constructionism and the environment

The primary theoretical foundation underpinning this study is an understanding of climate change as a socially constructed issue with material effects. This section will first consider the collaborative social production of knowledge through the lens of social constructionist thought. Next, I will discuss a Foucauldian approach to discourse and analysis relevant to the topic of this thesis. Finally, I will explore the concept of ‘social nature’ (Castree & Braun, 2001) and its implications for influencing management of environmental issues.

Central to the postmodern movement, the epistemological assumption underlying social constructionism is that all knowledge is socially constructed. This understanding of the creation of knowledge, particularly scientific knowledge, has had a notable impact on how we perceive knowledge and what we accept as truth. From a social constructionist perspective, scientific knowledge is not found, and is not objectively true; rather, it is produced by collaborating scientists in a particular social and historical context (Barry, 2007). This postmodern shift in

thinking about knowledge has led to the study of knowledge production by social actors no longer perceived to be objectively discovering truths about material reality. These social actors traditionally included only scientists, but the "democratization of knowledge production" (Feindt & Oels, 2005, p. 163) suggests groups such as ENGOs now play a role in producing knowledge in environmental debates (Jamison, 1995). Understanding knowledge production as a subjective activity implicates ENGOs in actively shaping our perceptions of the natural world.

Foucault's influence on social constructionist thought in studies of environmental discourse is widely cited. Foucault points to the shaping influence of discourse on material reality and its role in generating knowledge and 'truth' (Feindt & Oels, 2005). Certain discourses in particular contexts are popularized through power, while others are marginalized. In Foucauldian discourse analysis, the concern is not with what is inherently true, but rather how a particular discourse comes to be recognized as true. Hoping to inspire people to think critically of their realities, Foucault believed his role was "...to show people that they are much freer than they feel, that people accept as truth, as evidence, some themes which have been built up at a certain moment during history, and that this so-called evidence can be criticized and destroyed" (Foucault, 1988, p. 10).

For studies of environmental discourse, this critical perspective is important for understanding environmental issues, as with knowledge, as socially constructed through discourse. Though these issues, such as climate change, concern physical objects, how we perceive the problems and develop solutions, or not, is the product of social constructions established by ideologically distinct social actors (Feindt & Oels, 2005; Stenberg & Räsänen, 2006). Exposing the constructions of climate change, for example, allows us to see that "what we had once accepted as self-evidently pre-ordained and inevitable is in fact contingent and might

conceivably be remade in some other way, if only we would try" (Demeritt, 2002, p. 776).

Recognizing that 'nature' and 'climate change' are contested terms, we can understand environmental problems as the product of social power. There is no single explanation of climate change; rather, multiple understandings of this issue are established through discourse.

Environmental discourses propose particular representations of reality which are constantly engaged in a struggle to be recognized as true in any given context. 'Argumentative Discourse Analysis', a neo-Foucauldian approach developed by Hajer (1995), provides an effective framework for exploring conflicting representations of complex environmental issues like climate change. Hajer's (1995) concept of 'storylines' relates to the different constructions advanced collectively by social actors with shared values and objectives. Hajer (1995) defines a storyline as "...a generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena" (p. 56). Storylines have "a tremendous importance for organizing social interaction" (Hajer, 2006, p. 71) because they conceal complexities by combining different discourses into a coherent narrative. The findings of this study will demonstrate how the storylines advanced by the ENGOs under study present distinct constructions of climate change and nature.

The social construction of nature, or what Castree and Braun (2001) call social nature, has been explored by scholars from a range of disciplines (e.g. Castree & Braun, 1998; 2001; Demeritt, 2002; Dingler, 2001). The declaration by these researchers that nature can only be understood through discourse has received criticism from those who claim that a social constructionist view denies a material reality; however, this 'hyperconstructionist' position is not widely held by social constructionists (Castree, 2001). 'Social nature' does not suggest that there is no physical reality beyond language, but that "knowledges of nature frequently express social

power relations, and these knowledges have material effects, insofar as people may believe and act according to them" (Castree, 2001, p. 13).

Myths of nature

One understanding of socially constructed nature was developed by ecologist Buzz Holling in the 1980s, who developed 'myths of nature' to describe the perceived stability of the Earth (Hulme, 2009). These four myths, theorized by Michiel Swartz and Michael Thompson (1990), present nature as benign, ephemeral, tolerant, or capricious. The construction of nature as benign insists that the Earth is entirely manageable, and despite human activity, will adapt to any new future. The other extreme of this view, nature as ephemeral, understands the Earth as existing in a delicate balance. This view of nature holds that human activity will be the ruin of the entire system. Less severe than the previous constructions, the myth of nature as tolerant recognizes a limited degree of volatility, but believes this can be overcome with appropriate knowledge and management. The final construction of nature as capricious refers to the belief that the Earth is entirely unpredictable. In this view, nothing can be done to manage the Earth, regardless of human activity. These four myths of nature, of course, cannot represent all views of nature in environmental debates; however, they are useful as a foundation for understanding how ENGOs perceive nature.

These constructions of nature are a contribution to a larger social theory proposed by anthropologist Mary Douglas and Michael Thompson, among others (Douglas, 1982; Thompson, Ellis, & Wildavsky, 1990). Douglas' (1982) theory of the four 'ways of life' is concerned with how individuals view themselves in relation to society. This theory integrates the social, political, and cultural realms in considering how social actors position themselves in environmental concerns. These four 'ways of life' are organized along scales of social regulation

and social contact, referring to the degree of control deemed necessary for social order and the degree of commitment to social relationships, respectively. Two categories, ‘hierarchists’ and ‘egalitarians’ believe a high degree of social contact is necessary, but hierarchists rely more heavily on social regulation than egalitarians, who view all social actors as equal. The final two categories identified by Douglas are ‘fatalists’ and ‘individualists’. In these two categories, social actors view themselves as having a low sense of social bonding in society, but individualists perceive little need for social regulation compared to fatalists (as cited in Hulme, 2009).

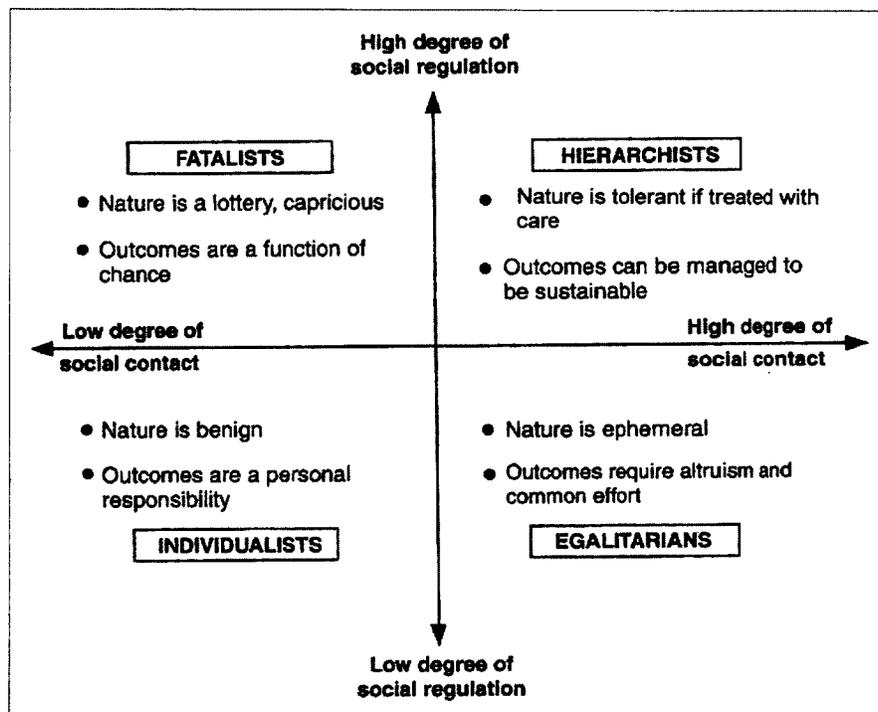


Figure 1. The four ‘ways of life’ developed by Douglas (1982) and the corresponding four ‘myths of nature’ (as cited in Hulme, 2009, p. 186).

The four myths of nature can be placed into the categories of the different ways of life (Figure 1) to contribute to our understanding of distinct constructions of climate change. Nature as benign is a view held by individualists, who believe climate change can be managed. The view of nature as ephemeral is advanced by egalitarians, who believe that nature exists in a delicate balance with human life. Nature as tolerant is a belief held by hierarchists, who propose

that nature can be unpredictable, but humans are able to manage climate change. The final myth of nature as capricious falls into the fatalist category, suggesting that regardless of attempts to 'solve' climate change, humans will be unsuccessful (Hulme, 2009).

These constructions of nature, and consequently environmental issues such as climate change, are thus unavoidably connected to the language used to describe them. 'Climate change' is not only a material problem; rather it is a concept that has been constructed through the discourse of a variety of social actors, including ENGOs. The various constructions of climate change influence many factors, such as public perception of risk and implementation of federal environmental policies. A discursive constructionist approach to understanding climate change seeks not only to identify constructions of this issue, but also to see the function of these.

Discourse and the environment

Having outlined climate change as a socially constructed issue, I will now discuss the literature illustrating the role of discourse in environmental concerns more specifically. Understanding the complexity implied in the term 'environmental discourse' provides necessary background for the later discussion of discourses of climate change. This section begins with a definition of discourse before describing environmental discourse as comprised of multiple discourses more specifically. Perspectives on knowledge making and the authority of scientific discourse in environmental issues are then explored. This section concludes by discussing literature which suggests blending different types of discourse can be productive in constructing complex issues such as climate change.

A definition of discourse

The role of discourse in constructing and maintaining social reality, including environmental issues, has been addressed by many scholars (e.g. Carvalho, 2007; Hajer, 2006;

Livesey, 2001). As researchers increasingly view societal issues as discursively constructed entities, the role of language in shaping reality has become a focus in a variety of disciplines (Hardy, 2001). This discursive turn has resulted in more than a few definitions of discourse with researchers from Linguistics, Geography, Political Science, and Communications, among others, contributing to the discussion. These definitions range from discourse in a more narrow linguistic sense to an understanding of discourse as ideology (Pennycook, 1994). Increasingly, the latter meaning has been adopted more frequently, particularly in the Foucauldian discourse analysis employed in studies of environmental discourse. Discourse is the means by which environmental issues are constructed. Discourse shapes, informs, and limits our perception of nature, environmental crises, and potential solutions. For the purpose of this study, a discourse will be understood as:

a language or system of representation that has developed socially in order to make and circulate a coherent set of meanings about an important topic area. These meanings serve the interests of that section of society within which the discourse originates and which works ideologically to naturalize these meanings into common sense. (John Fiske, 2011, p. 14)

Environmental discourse

A socially constructed view of the environment means that the environment, and its related issues, are the domain of many discourses, making the term 'environmental discourse' somewhat ambiguous. As Feindt and Oels (2005) describe, environmental discourse is only "part of a broader discursive landscape" (p. 162). The complexity of environmental issues and range of actors involved suggest that no single discourse would be sufficient to provide an understanding of the concept of nature.

The history of the post-war environmental movement saw a shift in concern from conservation to a more thorough grasp of the range of issues negatively impacting the environment. The range of environmental issues such as pollution, climate change, acid rain, nuclear power, clean energy, resource depletion, and waste management require complex and innovative solutions from a variety of disciplines. These complex and potentially devastating issues to which there is no one solution are described by social theorists Horst Rittel and Melvin Webber (1973) as ‘wicked problems’. As a wicked problem, climate change must be discussed in terms of multiple discourses, including scientific and political among others, because “...the values and beliefs held about the environment are established through the discourses of a bewildering variety of genres, institutions, and media” (Herndl and Brown, 1996, p. 3).

The development of environmentalism witnessed a transition from a primarily activist and ENGO-based movement to the inclusion of governments and corporations. The growing presence of issues, particularly climate change, in the media has increased awareness for the public as well. Environmentalism now involves a greater number of actors and a broader audience than it ever has, and environmental discourse must accommodate the range of interests involved in a consideration of climate change. The inclusion of politics, the importance of science and technology, and the development of fields such as Environmental Ethics demonstrate the array of contexts in which the environment is now a concern. Environmental discourse, then, might be best understood as a blend of many discourses (Herndl & Brown, 1996).

The types of discourse found in discussions of the environment depend greatly on the social actors involved and the issue being addressed. In the case of climate change, researchers have found a combination of many discourses employed, such as scientific, political, and ethical (Hulme, 2009; Scollon, 2008; Smart, 2011). In his book, *Why We Disagree about Climate*

Change, climate scientist Mike Hulme (2009) describes climate change as culturally constructed, extinguishing the notion of climate change as an objective scientific phenomenon with an obvious solution. Hulme proposes that we argue about climate change because of the variety of discourses involved in constructing the issue. Different discourses, embedded with ways of thinking distinctive of particular groups of people (Gee, 2008), might present difficulties in understanding climate change. Hulme finds that the discourses of science, economics, psychology, media, development, and governance, though in diverse combinations, are present in climate change discourse. He claims that we understand this phenomenon through at least one of these discursive lenses.

In a case study of argumentation in web-published climate change discourse, Graham Smart (2011) also investigates the diversity of discourses represented in the texts. Smart looks at the discourse of groups of social actors organized by opposing views in the climate change debate. Collectively, he finds the groups, termed ‘discourse coalitions’, use the discourses of science, politics, economics, law, and ethics in their discussion of climate change. Each coalition makes use of different discourses at different phases in its argument, often responding to the discourse of the opposing coalition. In particular, the rhetorical use of scientific discourse is explored in detail, describing many representations of science used by the coalitions in their advancement of particular claims.

In his discussion of the importance of discourse analysis for creating public policy, Scollon (2008) also notes the complexity of environmental discourse. In particular, he describes what he refers to as a collision of the discourses of science, politics, and government, and how these are used productively by social actors. Also investigating environmental issues in the realm of politics, John Dryzek (1997) discusses the role of blended discourses in particular

environmental ideologies. His widely cited book, *The Politics of the Earth*, demonstrates the use of social, technological, economic, political, scientific, religious, and ethical discourses in environmental discourse. The emphasis of particular discourses and the subordination of others are influential in shaping our understanding of environmental issues.

Perspectives on scientific discourse and knowledge

Perhaps unsurprisingly within the domain of the environment, scientific discourse is employed frequently in climate change discourse. Traditionally, science has been the source of knowledge about environmental issues and their severity. Though highly contested in the climate change debate, climate models and climate science are used by environmentalists as a source of objective authority. Scollon (2008) describes this traditional view of nature held by scientists, environmental realism, as follows: "it is taken as the physical world which is objectively given and which lies outside of, prior to, and independent of human conceptualizations. In this view nature is thought of as the domain of science, its theories, methods, and procedures..." (p. 75). In a discursively constructed understanding of climate change, however, the discourse moves beyond the realm of science to include the other domains mentioned above, particularly when social actors such as ENGOs are involved.

A study by Eden, Walker and Donaldson (2006) explores the use of science by NGOs in the waste debate in the United Kingdom. They find that NGOs still rely heavily on the discourse of science in constructing the issue, using it rhetorically by extending the boundaries of science to meet their own interests. Mentioned earlier, Smart's (2011) study also confirms the frequent use of science in climate change discourse, and a study of media texts by Carvalho (2007) discusses the prevalence of science discourse in a diachronic analysis of newspaper articles in the United Kingdom. Though Eden, Walker, and Donaldson (2006) note the common use of science

discourse in environmental debates, they, among other researchers, recognize that science is no longer seen as the "value-free, objective enterprise it often prides itself as being" (Schneider, 2001, p. 338), an idea that has been embraced by some and fiercely resisted by others. Social actors, NGOs included, are now recognizing that science is not the only type of discourse that should be considered in environmental affairs.

The authoritative role of science is diminishing, recognized instead as simply one means to legitimate knowledge in environmental debates (Carvalho, 2007; Eden, Walker, & Donaldson, 2006). An analysis of discourse in Harrison and Burgess' (1993) case study of land conservation in the UK shows different reactions to, and the persuasiveness of, a variety of discourses through the perspectives of developers, conservationists, and the public. It was shown that the lay audience trusted their own knowledge and experience over the information of scientific or historical knowledge if there were discrepancies. Similarly, a case study of Arctic Indigenous peoples done by Marybeth Long Martello (2008) describes the need to include traditional knowledge in environmental affairs. In this study, the voices of the lay people are becoming visible alongside scientific knowledge, and is influencing how we view and make decisions about climate change. Other discourses, such as "local, lay, experiential and intuitive" (Ockwell & Rydin, 2005, p. 2) now have an important role in environmental debates. Addressing different discourses beyond science is an effective method for garnering support for the environmental movement. The discourse of the ENGOs under study in this thesis will confirm this trend of the diminishing role of scientific discourse, instead combining many discourses to establish specific constructions of climate change.

Multiplicity of discourses

Combining multiple discourses to address the complexity of environmental issues, such as climate change, has been found to be effective in advancing the interests of social actors (Carvalho, 2007; Harrison & Burgess, 1993; Ockwell & Rydin, 2005; O'Neill & Nicolson-Cole, 2009). Sharp and Richardson (2001) reflect on discourse analysis in environmental politics and describe the merging of social and economic discourses as productive in shaping public policy. Similarly, in their study of anthropogenic burning, a farming technique used by Aboriginals in Australia, Ockwell and Rydin (2005) discuss the effectiveness of employing both the discourse of science and politics for institutional reform. They do note, however, that ethical discourse is particularly useful within environmentalism, and the use of "experiential knowledge" (p. 18), that is, the knowledge of every day experience, is becoming increasingly influential.

In a somewhat different approach, a study by O'Neill and Nicolson-Cole (2009) also agrees that the use of experiential discourse is beneficial for engaging the public in environmental debates. The study explores how the use of fear may not be the most effective strategy for promoting long-term interest and involvement with environmental issues. The study looks at visual and iconic representations in climate change communications to measure the extent to which images of fear developed a sense of being personally connected to, as well as being able to do something about an issue. They discovered that using fear may have superficially appeared effective, but was only successful in garnering attention for the issues. The counterproductive effect of using fear results from the lack of appeal to daily life and local surroundings. Participants in the focus groups suggested that in order to create a feeling of personal salience, icons and visuals should engage with everyday life rather than contexts that seem remote and distant. Though this study investigates visual discourse, it confirms the

productive use of experiential knowledge seen in the previously mentioned studies of verbal discourse.

The results of these studies suggest that ENGOs could benefit from incorporating multiple discourses in their texts, including the discourses of science and experience. As we will see, ENGOs employ a unique combination of discourses, highlighting some while silencing others. These choices are made as a result of the ideology and interests of each ENGO, and are enacted through diverse rhetorical strategies.

Rhetorical strategies and environmental discourses

A brief understanding of rhetoric and rhetorical strategies will be helpful for understanding the later discussion of the ways in which ENGOs construct climate change through the purposeful use of language. Each ENGO employs particular strategies and language to advance its own construction, drawing on the most effective tropes for its purposes. Though each ENGO under investigation shares the overarching mission of protecting the environment and mitigating the negative consequences of climate change, each also has goals and solutions specific to the ideology of the organization. These distinct objectives result in different intents and purposes, and, consequently, the use of varying rhetorical strategies. This section will define rhetoric against the traditional definition of the term, before describing the rhetorical strategies, tropes, and metaphors common in environmental discourses.

Rhetoric is traditionally associated with its classical Aristotelian roots, defined as "observing in any case the available means of persuasion" (Solmsen, 1954, p. 24-25). Rhetoric began as an attempt to cultivate effective speech practices in public forums during the early stages of democracy. Aristotle established a system of three persuasive strategies for appealing to an audience: logos, ethos, and pathos. The five canons of rhetoric, invention, arrangement, style,

memory, and delivery, were strategies for creating persuasive speech in any given rhetorical situation.

Rhetoric has many meanings depending on which discipline is defining the term and for what purposes. Some definitions of rhetoric refer to the classical concepts outlined above, while others use the idea of rhetoric to mean false speech, often seen in politics (Keith & Lundberg, 2008). Contemporary definitions of rhetoric have proposed that the term encompasses a broader understanding of the effective use of language, rather than focusing only on persuasion (Bazerman, 1988; Butler, 2000; McCloskey, 1986). In this conception, rhetoric is language used purposefully to create meaning within a specific context. For this study, the following definition of rhetoric from Gerard Hauser (1991) will be used:

Rhetoric is an *instrumental* use of language. One person engages another person in an exchange of symbols to accomplish some goal. It is not communication for communication's sake. Rhetoric is communication that attempts to coordinate social action. For this reason, rhetorical communication is explicitly pragmatic. Its goal is to influence human choices on specific matters that require immediate attention. (p. 2)

In influencing human choices, discourse draws on the three persuasive strategies of logos, ethos, and pathos. Logos refers to the validity and proof of a particular representation of reality. Most commonly thought of as logic, logos relies on the reasoning of an argument. Ethos is a dimension of communication that refers to the audience's perception of the speaker's credibility and moral character. In particular, ethos can be created by pointing out the good deeds and successes of a social movement, for example, or by associating discourse with relevant expertise (Keith & Lundberg, 2008). Pathos refers to the role of the audience's emotions in understanding an argument or communication. Pathos is the use of language and metaphors that evoke

particular feelings and frame the communication in a way that will support the desired emotional response from the audience.

There are many rhetorical tropes that can be considered when exploring the rhetoric of an organization, ranging from changes in word patterns to changes in meaning. A trope is the use of language to mean something other than the literal meaning of the words. In using tropes, ENGOs can ascribe meaning to language that might provide a more effective way for the audience to engage with and understand the discourse. Environmental discourses make use of tropes to associate environmental crises, such as climate change, and their solutions in terms of a variety of familiar situations. Hulme (2009) and Cox (2013) have noted the reoccurrence of several prominent tropes in climate change discourse that serve to shape different dimensions of the issue. These tropes are used for different purposes, such as suggesting urgency, creating nostalgia, or sensationalizing the issue. The tropes relevant to this study will be described in the analytical framework at the end of this chapter.

More specifically, one type of trope used frequently in climate change discourse is metaphor (Cox, 2013; Dryzek, 1997; Hulme, 2009). Metaphors enable ENGOs to use language in meaningful ways by using one idea to evoke the meaning of another. In environmental discourse, scholars have identified several prominent metaphors, such as Mother Nature, tipping points, carbon footprint, spaceship Earth, and population bomb (Dryzek, 1997; Hulme, 2009; Russill & Nyssa, 2009). These metaphors serve to influence the audience through emotional appeal by establishing human responsibility and emphasizing uncertainty and fear for the future. The metaphors found in the discourse of the ENGOs in this study will be discussed at greater length in the analytical framework.

Environmental ideology

In order to address the influence of ideology on each ENGO's discourse later in this thesis, it is important to define ideology and highlight the relevant environmental ideologies which are evident in the climate change debate today. This section will discuss the relationship between discourse and ideology, suggesting that ideology is embedded in discourse, with each influencing the other. First, this section will define ideology and the diversity of ideologies within environmentalism. Next, a discussion of several ideologies within the environmental movement will be divided into anthropocentric and biocentric ideologies. Presented as more specific threads of ideology on a scale of anthropocentrism to biocentrism, conservationism, including ecological modernization and economic rationalism (Dryzek, 1997), and preservationism, including evangelical ecology, will be presented. Finally, the ideology of deep ecology will be discussed.

Defining ideology

The use of a variety of discourses constructs a specific concept of climate change. ENGOs might rely most on a particular discourse while subordinating, or silencing altogether, other discourses. The unique combination of discourses selected by individual ENGOs establishes that there is indeed ideology embedded in their discourse. Here it will first be useful to discuss what is meant by the term ideology. Many definitions of ideology exist, varying within and between disciplines. Foucault resists the use of the word, claiming it implies an objective truth to which we can compare our perceived reality. For the purpose of my study, however, I will use ideology to mean "a system of values, norms and political preferences, linked to a program of action vis-à-vis a given social and political order" (Carvalho, 2007, p. 225).

Ideology within environmentalism is varied, to the extent that the movement has been criticized for focusing on its differences rather than allying for its common goal (Dryzek, 1997).

McCormick (1991) suggests an explanation for this divided nature:

Few reform 'movements' have ever been homogenous because few of society's problems have simple or universal answers. Environmentalism is no exception...Environmentalism is fundamentally concerned with the protection and management of the natural and human environment...but environmental groups have disparate ideologies, objectives, and methods. (p. ix)

As McCormick (1991) points out, a common goal does not necessary mean a common ideology. Though ENGOs all strive to protect the environment, the methods and reasons for doing so vary, enough so that the result is the current disjointed movement of the 21st century. It is this range that I hope to shed light on in the study of selected ENGOs representing varying beliefs within the movement.

Studies have noted the array of beliefs within environmentalism, from radical direct action approaches to rational economic attitudes (e.g. Corbett, 2006; Dryzek, 1997; McCormick, 1991); however, for the purposes of this study, the ideology of ENGOs will be viewed as the response to two primary concerns: the approach to change that is advocated, and the relationship between humans and nonhuman life. The latter has divided the movement since the days of preservation and conservation. The two initial underlying beliefs about the relationship between humans and nature are divided between anthropocentric and biocentric environmentalism. A fuller description of each is below, followed by the more specific ideologies found in environmentalism today which are relevant to the ENGOs under study in this research.

Anthropocentrism

Anthropocentric environmentalism is the attitude held by much of the current environmental movement, believing that human beings are separate from, and superior to, nature as a result of moral and reasoning capabilities (Beckman, Kilbourne, van Dam, & Pardo, 1997). This position suggests that humans are entitled to use nature's resources for their own purposes, and is associated with traditional Western thought. Some have traced the roots of anthropocentrism to Christianity, using the story of creation to describe man's dominion over nature (White, 1967).

Today, an anthropocentric worldview is used by advocates on opposing sides of environmental debates, varying, however, in the extent to which they believe a human-centered ideology is the cause of environmental crisis. Even within the environmental movement, anthropocentrism presents a range of ideas, with some proponents viewing nature solely as resources for human consumption, and others asserting that the current perception of nature's role in human interests is too limited (Grey, 1995). William Grey, discussing environmental philosophy, argues for an "enlightened anthropocentrism" (Mathews, 2010, p. 4) that extends human wellbeing to recognition of the inherent intertwining of humans with nature. Many of the major ENGOs currently involved in environmental debates hold anthropocentric views, including the World Wildlife Fund, Sierra Club, Nature Conservancy, Pembina Institute, and Evangelical Environmental Network. Though these organizations would all agree that human interests must be prioritized over nonhuman interests, they would differ, often significantly, in their approaches to how environmental problems should be solved.

Conservationism

Corbett (2006) places the two main ideologies of conservationism and preservationism within anthropocentric environmentalism. Conservationism is the belief that humans should practice environmentally sustainable production and consumption in order to preserve our quality of life now and for future generations. This ideology maintains a utilitarian value of nature, emphasizing its economic value (Corbett, 2006). Human life depends on the responsible use of nature, and we are free to use nature for benefit. The term 'conservationism' encompasses anthropocentric ideologies most concerned with environmental sustainability and economic growth, including 'ecological modernization' and 'economic rationalism', described in detail below.

Ecological modernization

A further distinction within anthropocentric environmentalism made by many scholars (e.g. Buttel, 2000; Dryzek, 1997; Hajer, 1996; Mol & Sonnenfeld, 2000) is the ideology of ecological modernization. Most often attributed to German sociologists, Joseph Huber and Martin Jänicke during the 1980s, ecological modernization was further developed in Western Europe by scholars such as Gert Spaargaren and Maarten Hajer (Mol & Sonnenfeld, 2000). A foundational document for the ideology was the Brundtland Report, first seen at a UN conference in Rio de Janeiro, 1992. In the report, the concept of sustainability, and perhaps unknowingly at the time, ecological modernization, were brought to the forefront of political thinking. In Dryzek's (1997) perspective, ecological modernization can be seen as a more developed extension of sustainability due to its focus on policies and planning.

Ecological modernization was conceptualized in response to the constructed divide between economic and corporate interests and environmental interests. This term

reconceptualized the correlation between environmental protection and limited economic prosperity. Rethinking the relationship between technology and the environment produced an ideology in which environmental issues are seen as problematic for social and economic development (Mol & Sonnenfeld, 2000). Within an ideology of ecological modernization, ecological sensibility is believed necessary for economic growth (Hajer, 1996). It has become inaccurate for the corporate world to disregard environmental concerns, or for any actor to present economic and environmental issues as polarized (Mol & Sonnenfeld, 2000).

Beginning with an emphasis on the advancement of technology and economic dynamics for environmental development, an understanding of the necessity of a more balanced role of government and market quickly followed. Ecological modernization now also encompasses cultural and social dynamics, and has included newly industrialized and developing countries, thinking in terms of a global process for environmental and economic progress (Mol & Sonnenfeld, 2000).

The fundamental hope of ecological modernization is for an ecological redesign of capitalist societies (Dryzek, 1997), "transforming core social institutions" (Mol & Sonnenfeld, 2000, p. 5) with the environment in mind. Often blamed for the current state of the environment, the modern emphasis on technology and industrialization lacked the current knowledge about the effects of human behaviour on nature. This ideology asserts that environmental crises can now be solved with innovative technologies of an environmental bent. Hajer (1996) claims ecological modernization proposes new industrial improvements that would take an environmentally friendly approach to "modernise itself out of the crisis" (p. 249). The vision for the future for proponents of ecological modernization, then, is to see capitalist societies reconfigured "so that economic development and environmental protection can proceed hand-in-hand and reinforce

one another" (Dryzek, 1997, p. 143). Ecological modernization typically imagines political involvement to be the solution, with some consideration of markets, but little space for individual engagement (Hajer, 1995).

With its plan for a promising future for both the economy and the environment, ecological modernization is now considered one of the mainstream ideologies in environmentalism (Buttel, 2000). The adoption of this way of thinking has meant reconsidering previous assumptions and allowing for new ideas regarding what have traditionally been fundamental institutions. The role of science and technology should be viewed as means for preventing destruction rather than for curing it. This notes a shift in beliefs about the limited nature of nature, and the need for sustainable human consumption. There has also been a transformation that has changed the role of government to allow for other actors, such as ENGOs, to be involved in decision making concerning environmental affairs (Mol & Sonnenfeld, 2000). Due to an anthropocentric mindset and the use of nature only for economic benefit, ecological modernization is categorized as a conservationist ideology.

Economic rationalism

Dryzek (1997) identifies the ideology of economic rationalism within environmental debates, which focuses on the potential influence of markets for solutions to environmental issues. In this study, however, economic rationalism is identified as one approach to change for the climate crisis. While the ideology of ecological modernization takes the need for economic growth as given, an economic rationalist approach proposes the extreme stance that the economy can be the answer to environmental issues. The most radical position of economic rationalism is to privatize land, while less extreme strategies are to put taxes in place that might discourage the excessive production of harmful gases that contribute to climate change. Economic rationalism is

an anthropocentric ideology that not only works within a capitalist society, but relies on capitalism in order to function. Proponents of this ideology believe environmental problems are caused largely due to a lack of private property rights. Economic rationalism has had limited success globally because issues of land privatization are salient primarily in North America, where much land remains public.

Economic rationalism is founded on the principle that people will always act according to their best interests. Translated to environmental issues, the fundamental belief is that specifying property rights will encourage land owners to care for the property responsibly because they have a vested interest in the land. Dryzek (1997) compares the excessive litter in public parks to that found in private gardens as an example of this principle. Presumably the social actor buying the land will be the one with the most at stake, and will be inclined to increase the profit of the property, which would require environmentally sustainable practices.

Economic rationalism asserts a hierarchical relationship between man and nature, with humans being able to purchase land. This view of nature that proposes market-based solutions to issues such as climate change "...brought nature partly within the economic sphere and attached a price to it" (Mol, 1996, p. 305). In this ideology, nature is seen as a set of resources to be used for the economic benefit of humans, which is characteristic of conservationism. Economic rationalism is a conservative approach to environmental protection because it relies on capitalism to fulfill its goals and requires little change for citizens or social institutions.

Preservationism

Less anthropocentrically inclined than conservationism, 'preservationism' is a further distinction made by Corbett (2006) in her study of environmental communication. An ideological stance of preservationism retains human-centered values, but extends the significance

of nature beyond utilitarian and economic purposes. Preservationism maintains the value of nature as life-sustaining resources, but also for scientific, aesthetic, or religious value. An example of an ideological stance of preservationism could be conserving land to gather scientific data about a specific region or to create recreational space for cultural activities. Preservationism remains an anthropocentric ideology, however, because even this extension of the value of nature beyond economic significance is for human benefit (Corbett, 2006). Environmental protection for religious reasons, as seen in the ideology of 'green evangelism', falls into this understanding of preservationism.

Green evangelism

With the diversity of social actors advocating for reduced human consumption to combat global warming, it is no surprise that religious groups have joined the conversation. Contributing yet another anthropocentric ideology within environmentalism are evangelical Christians, introducing what has been termed green evangelism (Prelli & Winters, 2009) or ecotheology (Wilkinson, 2009). This ideology is contested among evangelical Christians and mainstream environmentalists alike. Many believe that a green evangelism is inherently contradictory, a position that may have roots in the historically significant essay by Lynn White (1967). "The Historical Roots of our Ecologic Crisis" claims the roots of anthropocentric thinking come from a Christian view of humans having dominion over all of creation. The essay has been critiqued by many as oversimplifying the issue, but some also suggest that it may be, at least in part, the cause of the current environmental crisis. This divide has maintained the separation of green evangelicals and mainstream environmentalists, though leaders in green evangelism and researchers are beginning to explore the relationship between the two, pointing to potential collaboration (Gardner, 2002; Prelli & Winters, 2009; Wilkinson, 2012).

Green evangelism is often described by its adherents as creation care, which accurately describes the fundamental aspect of stewardship in this ideology. Evangelical Christians have a moral duty given by God to care for his creation, humans and nature alike. In this ideology, overconsumption is considered a sin, which separates Christians from God and causes the poor to suffer. Thus, reducing consumption is necessary for protecting the environment and for practicing biblical faith. Prelli and Winters (2009) investigate the discourse of green evangelism and find characteristics unique to this biblical environmental ideology, but also suggest the potential for collaboration with mainstream environmentalists.

Using Dryzek's (1997) approach to discourse analysis, Prelli and Winters (2009) describe green evangelism as working within a liberal democracy and capitalist economy, much like the reformist ideologies in Dryzek's, *The Politics of the Earth*. Unique to green evangelism, however, are the constructed entities of the Creator, evangelical Christians, and sin (Prelli & Winters, 2009). According to Prelli and Winters (2009), green evangelism creates relationships of subordination of nature to humans and human responsibility for creation care. In opposition to evangelicals who oppose a greening of religion, green evangelists use the metaphor of stewardship, rather than dominion.

Another fundamental relationship within green evangelism is the belief that degradation of the Earth is a result of human sin (Prelli & Winters, 2009). This relationship implies that green evangelism may have fundamental similarities with imaginative discourses, such as ecological modernization. Both ideologies hold that the environment and social issues, such as poverty, are vitally connected. The most significant differences, perhaps, are in the motivation and approach of green evangelism. Motivated by a duty to God, Christians use appeals to biblical authority to

advance their position. Caring for creation also becomes a potential for sharing evangelical beliefs with non-believers.

Scholars researching the green evangelist movement have proposed that this ideology might have more in common with environmentalism than adherents of either believe (Prelli & Winters, 2009; Wilkinson, 2012). Gary Gardner (2002) suggests that infusing the moral and emotional aspects of green evangelism might be of use to other environmentalists whose strength often lies in the use of rational and scientific discourse. Wilkinson (2012) also points to the potential benefit of collaboration with green evangelists, claiming that the significant proportion of American evangelicals would be advantageous for the movement. A lack of public engagement in reducing human impact on the environment has been problematic, and being in "the business of communicating a future worth fighting for" (p. 8), religion could be part of a solution.

The ideologies described above, though fragmented in many ways, all rely on anthropocentric assumptions. In each case, the approach to change and the specific ideological objectives may vary, but the relationship between humans and nature remains hierarchical. The findings of this study will demonstrate how these anthropocentric ideologies influence constructions of climate change, ultimately suggesting that humans are capable of regulating nature, and thus, environmental problems. Though the ideologies described above believe humans have the right to use nature for our own benefit, the degree of restraint ascribed by each ideology varies, a concept that will be discussed further in the analysis of the ENGOS' discourses. The later discussion will demonstrate how these ideas may be found in the ideology of select ENGOS.

Biocentrism

Biocentrism stands in opposition to the fundamental beliefs of anthropocentric environmentalism. Biocentric environmentalism holds that humans are not superior to nonhuman life, and nature should not be used, unrestrained, for human interests. As an ethical perspective, biocentrism maintains that an injury to nonhuman life is an injury to ourselves because we are all part of a larger system. Biocentrism in environmentalism has become all but synonymous with the ideology of deep ecology. As such, the remainder of this description of biocentrism will be carried out through a discussion of deep ecology.

Deep ecology

In contrast to the anthropocentric ideology of mainstream environmentalism stands deep ecology, a concept coined by Norwegian philosopher Arne Naess in 1973. Deep ecology has gained much recognition since, most prevalent in the United States, but also active in Canada, Europe, and Australia (Dryzek, 1997; Earth First!, 2012). This ideology, maintaining a spiritual perspective, is often associated with radical environmental groups such as Earth First! and the Earth Liberation Front. The central assertion of deep ecology is that environmental issues must be understood as the result of capitalist, anthropocentric societies.

Naess (1973) discussed the difference between shallow and deep ecologies. The former seeks a reform in practices and behaviour, while the latter aims to first shift the mindset of industrial society to an ideology in which nature is seen as more than an unlimited set of resources available for human use. Deep ecology is founded on two essential principles: biocentric equality and self-realization (Devall & Sessions, 1985).

The first of these, biocentric equality, is the belief in the intrinsic value of nature. Deep ecologists believe that the diversity of all life, human and nonhuman alike, adds to the value of

nature. As a result, humans should be motivated to preserve and protect nature to promote the value of all life (Devall & Sessions, 1985). The most radical proponents of this tenet are often criticized as being misanthropic. They believe human needs should never be placed above nonhuman needs, even recognizing the demise of human as necessary for environmental progress. In his defense of deep ecology, Warwick Fox (1989), an important contributor to this philosophy, makes a distinction between misanthropy and anti-anthropocentrism. In his interpretation, placing only vital human interests above nonhuman interests is acceptable, a belief also held by many of the principle scholars in defining deep ecology (Devall & Sessions, 1985). Deep ecology holds only that current human consumption is excessive and must be reduced. The majority of its proponents seek the dismantling of industrial society, not the demise of human life (Devall, 1988; Manes, 1990).

The second founding principle of deep ecology is self-realization, which is identifying as one part of a larger system rather than as individuals. Deep ecologists use science to describe the interconnectedness of all things that is overlooked, or at least not emphasized, by anthropocentric environmentalists. Self-realization means a shift in focus from caring for individuals to caring for nature in its entirety, ecosystems and populations included (Dryzek, 1997). This principle calls for morals and ethics to be extended to nonhuman interests, a point of contention for many critics who claim that morals are a human construct and applying morals to nonhuman life undermines the very anti-anthropocentric foundation of deep ecology. Naess (1987) attempts to remedy this contradiction through the 'ecological self', a concept that blends human and nonhuman life. The ecological self extends our selves to include nonhuman elements. Such an extension of the self to include nature eliminates the need for morals and ethics, maintaining that one would not hurt any part of themselves (Naess, 1987).

Deep ecology has been criticized for being fascist, authoritarian, sexist, and providing more questions than answers to solutions for the environmental crisis. In his book, *Green Rage*, Christopher Manes (1990) defends the viewpoints of deep ecology in discussing the desire of the movement to bring about a new way of thinking through questioning the current industrial mindset. Critiques of the fascist nature of deep ecology are defended by many, including Devall and Sessions (1985), who clarify the hope of the movement to diminish dominance over all things, not to reverse the current dominance.

Scholars have also explored the relationship between deep ecology and world religions (e.g. Landis Barnhill & Gottlieb, 2001; Cobb, 2001). Some have found similarities, though most commonly between deep ecology and Eastern religions that have a more spiritual connection to the Earth (Landis Barnhill & Gottlieb, 2001). Deep ecology and religion share, perhaps, a moral conviction in solving the environmental crisis, but scholars have also found that religion "challenges deep ecology in productive ways" (Cobb, 2001). The relationship between deep ecology and western religions remains divided due to the anthropocentric worldview of the latter.

Dryzek (1997) offers further insight into the ideology of deep ecology through what he terms 'green romanticism'. According to Dryzek, adherents of deep ecology, or green romanticists, are focused on changing the way people experience the world. Green romanticists are not concerned with influencing policy at the institutional level, but rather hope to change individuals who will in turn influence practices. Dryzek (1997) summarizes the storyline of green romanticism as follows:

...industrial society involves and induces a warped conception of persons and their place in the world. Required to remedy this situation are new kinds of human sensibilities, ones

that are less destructive to nature. While the precise content of the required sensibilities can be a matter of some dispute, green romantics would all agree that they involve a less manipulative and more humble and reverential human attitude to the natural world. (p. 163)

The effect of green romantic thinking on the world is underestimated by some. The measure of its effect cannot be influence on governments and policies because this is not where adherents to green romanticism seek change. Hoping to influence individuals, this ideology has been effective in altering the behaviour of many people and families in their homes and daily lives (Dryzek, 1997). Though green romanticism may be able to effect change in society to some extent, it is not often successful in persuading individuals to adopt its ideology of deep ecology. This perspective also fails to address the complexity of environmental issues, and, on its own, might be an insufficient solution.

Dryzek (1997) acknowledges that anthropocentric and biocentric attitudes might be more connected than they appear, suggesting that all environmental ideologies interact in some way with industrial ideology (p. 15). Beckman et al. (1997) proposes a similar idea, suggesting the two seemingly opposing attitudes might be considered different constructs of the environment, rather than ideas independent of one another. The ENGOs selected for this study represent anthropocentric and biocentric ideologies, and the results of this study will further explore the ideological similarities among the ENGOs, proposing potential for collaboration between organizations mobilized around a desire to end climate change.

Analytical framework

In this section, I discuss specific concepts taken from the theories outlined above that I have used in analyzing the data collected in my research and in developing the findings of the

study. I begin by describing certain concepts used in identifying the particular ideological stance embedded in the discourse of each of the four ENGOs under study. Next, I focus on the concepts employed in discerning the ENGOs' respective constructions of nature and climate change. Finally, I discuss specific rhetorical concepts in my analysis of each ENGO's discourse.

Identifying ENGOs' ideological positions

In the discussion of ideology earlier in this chapter, I described several ideologies that are prominent within the environmental movement. In analyzing the data gathered for the study, I used aspects of these prominent ideologies in the following ways to identify the distinctive ideology reflected in the discourse of each of the four ENGOs. The ideology of 'ecological modernization' was used in examining Pembina's discourse; 'preservationism' and 'economic rationalism' were important in exploring the discourse of the Nature Conservancy; 'green evangelism' was useful in looking at the discourse of the Evangelical Environmental Network (EEN); and deep ecology was central in my analysis of Earth First!'s discourse. In each case, the ideology used in the analysis helped me recognize how each ENGO constructs climate change and for what particular purposes.

Establishing ENGOs' constructions of climate change

To establish the ENGOs' distinct constructions of climate change, I employed Hajer's (1995) concept of storylines. I used storylines to first identify what each organization deems to be the cause of global warming and the current and potential consequences of the issue. I also employed the concept of storylines to describe the solution proposed by each ENGO, including the urgency of the issue and which social actors have agency. The use of storylines allowed me to provide a succinct description of each ENGO's construction of climate change.

To further explore the constructions of climate change, I used concepts from the framework of the 'four ways of life' (Douglas, 1982). In particular, the findings of this study identify the ENGOS' perceptions of their places in society as 'hierarchists', 'egalitarians', or a blend of both. In constructing climate change, ENGOS also construct particular representations of nature. To explore the constructions of nature found in the discourses of the ENGOS, I employed several 'myths of nature' (Schwarz & Thompson, 1990). More specifically, I used the myths of 'nature tolerant' and 'nature ephemeral' to identify the view of nature held by each of the four ENGOS and to discern how this view was reflected in the organization's construction of climate change. Employing the concepts of storylines, nature as tolerant, and nature as ephemeral, and classifying the ENGOS as hierarchist or egalitarian provided me a way of discerning the complex construction of climate change established by each of the organizations.

Discussing the ENGOS' use of rhetorical strategies

To discover how a particular construction is established in an ENGO's discourse, I employed several of the rhetorical concepts discussed in the previous section. More specifically, I used the metaphors of 'Mother Nature' and 'tipping point' (Dryzek, 1997; Cox, 2013; Hulme, 2009). The metaphor of Mother Nature emphasizes the life-sustaining qualities of nature; this metaphor evokes nostalgia and moral obligation (Hulme, 2009). The metaphor of the tipping point depicts the Earth as threatened by unprecedented human activity, and evokes fear by indicating impending catastrophe. This metaphor proved useful in examining the discourses of Earth First! and the EEN. Focusing on the metaphors discussed here in my analysis of the discourses of the four ENGOS helped me to distinguish their particular constructions of climate change, and, more specifically, to infer the motivations underlying these constructions.

In my analysis, I also made use of the following tropes commonly found in environmental discourses: 'the apocalypse', 'the ecological jeremiad', 'environmental melodrama', 'lamenting Eden', and 'celebrating jubilee (Cox, 2013; Hulme, 2009; Wolfe, 2008). The first of these, the apocalypse, warns of impending doom and catastrophe as a result of climate change. The metaphor of the tipping point is frequently associated with this trope in prompting human fear of an uncertain future (Cox, 2013). With respect to the apocalypse trope, Hulme (2006; 2009) criticizes the use of 'alarmist' discourse, claiming that such rhetoric exaggerates the already grave consequences outlined by science. In response to this critique of alarmism, Risbey (2008) posits a distinction between 'alarmist' and 'alarming' rhetoric:

[Alarming discourse] differs from 'alarmism' in that the problem is not viewed as out of control or inevitable... This discourse recognizes both the possibility of large climate change and the means of preventing it. The discourse is 'alarming' in that it sounds an alarm to alert the public to the need to change course. (p. 34)

I employed this distinction between alarming and alarmist rhetoric in my analysis of the discourses of the four ENGOs in this study, pointing to the emotional appeals and perceived urgency in each construction of climate change.

In contrast to the doom of the apocalypse, the trope identified by Hulme (2009) as 'lamenting Eden' (p. 342) describes a yearning for pristine wilderness beyond the realm of social control. Rather than focusing on a catastrophic future, this trope evokes nostalgia for the past. I used the tropes of the apocalypse and lamenting Eden in my analysis of the rhetorical strategies used by Earth First! in constructing climate change. In particular, these tropes helped me identify the frequent use of emotional appeals in the discourses of the ENGOs.

Another trope found in environmental discourses is the ecological jeremiad, which "laments or denounces the behavior of a people or society and warns of future consequences if society does not change its ways" (Cox, 2013, p. 66). The jeremiad establishes the motivation and responsibility for contributing to a solution for the climate change crisis. This trope was valuable for exploring the discourses of the EEN and Pembina. 'Celebrating jubilee' (Hulme, 2009, p. 353), another trope less frequently used in environmental discourses, also constructs climate change in moral terms, focusing on the issue as a means for mobilizing greater goals, such as social justice. This trope was particularly effective in analyzing the discourse of the EEN, which emphasizes both environmental protection and social justice.

The final trope discussed in my analysis, 'melodrama' (Schwarze, 2006), also highlights the moral implications of environmental issues. Environmental melodrama generates "polarizing distinctions between social actors and infuses those distinctions with moral gravity and pathos, [and] offers environmental advocates a powerful resource for rhetorical invention" (Schwarze, 2006, p. 239). The use of melodrama has been criticized by some scholars as reducing complex environmental issues to polarized extremes, but Schwarze (2006) suggests that melodrama functions as both moral and political opposition, stating that it "critically interrupts dominant modes of argument and appeal that obscure threats to the quality and future of life on the planet" (Schwarze, p. 245). I employed the concept of melodrama in my analysis of the moral discourse of Earth First!. In each case, I used the different tropes to interpret the constructions of climate change presented by the ENGOs in this study, particularly regarding the underlying motivations of the social actors and the use of moral discourse by each organization.

The final concept employed in my analysis was the discursive multiplicity found in environmental discourse. As previously discussed, studies have shown that environmental

discourse typically combines different individual discourses, used rhetorically, including political, economic, ethical, and religious discourses (Hulme, 2009). More specifically, I explored the appeals to authority through the use of scientific discourse, as well as the constructed motivation of the ENGOs resulting from the use of specific types of discourses. The discursive multiplicity of environmental discourse will be a factor in identifying the ideologies of the ENGOs and their corresponding constructions of climate change.

Chapter Four Methodology

This chapter describes the methodology of the study. It begins with the rationale for selecting the ENGOs and a brief description of each one. This is followed by an account of the types of data gathered and the method of collection employed. Finally, the chapter outlines the approach to discourse analysis that was used in the study and mentions the specific steps, derived from a framework proposed by Carvalho (2000) and categories identified by Dyrzek (1997), which were used to analyze the data.

ENGO selection

This study is a qualitative case study of four ENGOs who believe that anthropogenic climate change is causing irreparable damage to the Earth, and who seek to resolve this issue in diverse ways. Rather than exploring organizations that are divided on the cause of global warming, I wanted to investigate how groups on one side of the debate approach the issue of climate change and the possible solutions through their discourse. While it would not be possible within the scope of this study – or perhaps even possible at all – to incorporate the full range of interests and ideologies represented in the various ENGOs concerned with climate change, the ENGOs selected for this study were chosen for their different approaches to what all deem necessary change. The organizations are: Earth First!, the Evangelical Environmental Network (EEN), the Pembina Institute, and The Nature Conservancy. A brief overview of each organization is provided below.

Earth First!

Earth First! is an activist movement committed to direct action in protecting the earth. The movement was founded in 1979 by a group of individuals who were responding to a

perceived lack of action in the environmental community. Earth First! emphasizes that it is not an organization, but rather a movement. It has no formal leadership and is non-hierarchical; it does not have members, only Earth First!ers. The movement claims to be grounded in scientific and spiritual obligations to the environment.

The vision of Earth First! is a world where humans recognize that the earth should come first. The movement began in the United States, but now operates internationally in 19 countries such as Canada, Australia, Italy, Spain, Nigeria, and India (EF!, n.d.a). Earth First! is involved in environmental issues such as deforestation, climate change, protection of vulnerable land, and the growth of the oil industry.

Earth First! believes that it is not enough to reduce current energy practices and overconsumption by humans. The movement demands a complete restructuring of current societal behaviour to preserve and renew the environment upon which we depend. Earth First!ers seek change through non-violent acts of civil disobedience such as demonstrations, occupations, blockades, and tree sitting. The movement's website discusses techniques for monkeywrenching (the illegal sabotaging of industrial property) and staging tree sits, for which they are best known. The movement, which also publishes a newsletter and journal, holds an annual rendezvous where Earth First!ers gather to support one another and develop direct action skills.

Evangelical Environmental Network

The Evangelical Environmental Network (EEN) is a non-profit organization whose belief in God requires that humans care for what God has provided. The EEN was founded in 1993 by CEO and president, Reverend Mitch Hescox. The organization is comprised of five leaders skilled in preaching, youth involvement, and communications. The EEN emphasizes biblical faith in understanding human obligation to the environment.

The vision of the EEN is godly, just, sustainable economies, attained through implementation of public policies that reflect biblical principles of caring for the environment and individual efforts to resist wastefulness. The organization is based in Washington, USA and works locally and internationally. It addresses the issues of land degradation, deforestation, species extinction, water degradation, global toxification, global warming, and cultural degradation (EEN, 1994).

The EEN emphasizes biblical faith as the essential aspect of solving global environmental issues. The organization suggests a reevaluation of how both corporate and individual actions adhere to God's plan for creation as described in the Bible. The EEN urges Christians and churches to care for and renew creation by only taking from the environment through sustainable practices. Alongside individual behavioural choices to limit overconsumption, the EEN advocates for governments to enact national policies to protect the Earth. It provides many resources and initiatives—such as a blog, an institute for environmental education, and a global day of prayer for creation care—for churches and individuals to use in order to learn about and promote creation care.

Nature Conservancy

The Nature Conservancy is a non-profit organization based in Virginia, USA that uses non-confrontational, pragmatic solutions to address the global threats to the conservation of the Earth's living systems. It was created by a small group of scientists who were unsatisfied with the efforts of the environmental movement at the time. Determined to take direct action in the preservation of natural areas, they founded the Nature Conservancy in 1951. It boasts a staff of 550 scientists around the world and over one million members. The organization is run by a board of directors with combined experience in a variety of fields, but many have backgrounds in

business. A team of volunteer trustees and partners also provide expertise in areas such as science, economics, and policy.

The vision of the Nature Conservancy is a sustainable world for future generations to live in. It aims to create this world through the purchase of land and preservation of entire ecosystems around the world. The organization works in over 30 countries worldwide on all seven continents. It focuses specifically on conservation and any issues that are a threat to this mission, such as global warming, a lack of fresh water, and rising ocean levels.

The Nature Conservancy uses a framework called "Conservation by Design" to determine where to work and what to conserve. The framework is a collaborative, scientific approach to assessing and planning initiatives. The organization lobbies governments to implement laws that address the causes of climate change, to create global incentives for reducing deforestation emissions, and to analyze the impact of global warming in order to provide solutions to prepare ecosystems to manage unavoidable effects. The Nature Conservancy emphasizes its partnerships with scientists, indigenous communities, businesses, governments, and other non-profit organizations for enacting change. In particular, and often drawing criticism from other ENGOS, the Nature Conservancy partners with large corporations such as Coca-Cola and Shell, which allows it to work efficiently and on a large scale.

Pembina Institute

The Pembina Institute is a Canadian environmental think-tank based in Alberta. They use research, education, and advocacy to develop solutions for growing environmental concerns. Pembina began as a small group of individuals responding to the Lodgepole sour gas blowout in 1982, one of the largest industrial accidents in Canada. The group successfully influenced regulations in the oil and gas industry at the time, and consequently founded Pembina in 1985.

The institute is currently run by a board of directors with combined experience in a range of disciplines, alongside a team of volunteers who provide policy, industry, and communications expertise. Pembina emphasizes its research-based solutions and balance of businesslike strategies and environmental advocacy.

The vision of the Pembina Institute is to develop solutions that address current and future needs while protecting the earth, preventing global warming, and offering a safe global community. Pembina focuses mainly on local goals for sustainable energy within Canada, but, recognizing the global nature of many environmental issues, also seeks to influence international decisions and participate in global efforts. The institute creates solutions for issues such as climate change, energy efficiency, green economics, conservation, renewable energy, and environmental governance.

Pembina advocates for changes in the behaviour of society and seeks to establish specific environmental goals. Pembina seeks a practical transition to low-impact sustainable energy systems where both the corporate sector and communities practice sustainable energy consumption and production. In addition to these behavioural changes, Pembina lobbies the Canadian government to enact policies and regulations at a national level to encourage societal goals. Pembina also hopes to educate future generations through research in order to develop the knowledge and skills necessary for living in a world with sustainable energy systems. Pembina believes these changes are long-term goals that can be attained through milestones that demonstrate an increasing reliance on sustainable energy practices. Pembina seeks to initiate these changes through education and consulting services grounded in research. The institute can be contracted by businesses to assess current energy situations and provide solutions that consider the individual needs of the employer while furthering environmental goals.

Data collection

The data collected for this study include primarily textual data, with limited interview data. The textual data includes media releases, blogs, zines, newsletters, handbooks, articles, and emails produced by the ENGOs. Ten texts from each ENGO were analyzed, for a total of forty texts. Using each ENGO's official website, I began by looking for genres consistently appearing across the four ENGOs, but found that each did not always produce the same genres. Varied genres of texts were chosen depending on what each ENGO most frequently produces. I collected the most recent texts available (as of summer and fall 2012) from each website. The majority of the data falls within this timeline, the only exception being the data produced by Earth First!, some of which was published as early as 2009. Zines, newsletters, and guidebooks were the most commonly produced texts by Earth First!, as opposed to the frequent blogs and media releases of the other organizations.

I also subscribed to e-mail alerts from the three ENGOs that provided such a feature (all but Earth First!), narrowing the results by selecting for analysis only texts related to climate change. In addition, I gathered for analysis information describing the ENGOs from the official website of each organization, such as core values, vision, mission, and strategies. An interview with an employee at Pembina was also conducted in an attempt to validate textual data and gather a more comprehensive understanding of the organization's discourse.

I contacted relevant individuals at each of the selected ENGOs in order to request an interview, but only received a response from Pembina. The participant from Pembina is a communications specialist with the organization. As it was not practical to conduct an in-person interview, interview questions (Appendix A) were sent via email. The interview data provided

additional information about the audience for and production of Pembina's texts, and was analyzed in the same manner as the remainder of the data.

A limitation of this study is that I was only able to receive interview data from one ENGO. Earth First! proved the greatest challenge for data collection because of the decentralized, nonhierarchical organization of the movement. In addition, it was difficult to find recent texts produced by Earth First!, particularly data relevant to climate change. In order to ensure I was able to analyze Earth First!'s discourse regarding climate change, I collected data from an earlier time period than was the case the three other ENGOs.

Data analysis

A neo-Foucauldian approach to discourse analysis (DA) was used to investigate the data. The benefit of DA in understanding the discursive construction of environmental issues has led to the increasing use of DA in fields such as geography, politics, and discourse studies. Primarily social constructionist in nature, neo-Foucauldian DA maintains a skeptical attitude toward truth, understanding knowledge as contested and thus questioning any claims of absolute truth (Sharp & Richardson, 2001). This approach to DA reveals the ways that diverse social actors are involved in constructing environmental issues, and exposes the functions of these constructions. Regarding environmental discourse, the approach is concerned with describing how particular discursive constructions of environmental issues strive to be accepted as true (Hajer & Versteeg, 2005).

I began analyzing the data throughout the process of data collection to allow emerging themes to inform this process. Particularly influential in my analysis was Gordon Waitt's (2010) chapter "Doing Foucauldian Discourse Analysis," which was useful for understanding the fundamental aspects of a Foucauldian approach to analysis. I began with an initial reading of the

texts to become familiar with them, keeping in mind the categories of environmental ideologies described by Dryzek (1997). In particular, I looked for how the ENGOs construct the relationship between humankind and nature and the organizations' approaches to change. I identified the ideology of the ENGOs first on a scale of anthropocentrism to biocentrism, before establishing one of the more specific ideologies previously discussed, such as 'ecological modernization' or 'preservationism'.

Using the categories employed by Carvalho (2000) and Dryzek (1997) as a starting point, I first considered the structural elements of the texts before identifying what entities are constructed, and what actors have agency, within the discourse. I then looked for rhetorical features, including tropes, metaphors, and discursive strategies. The specific elements I explored for the textual analysis are as follows:

1. Surface descriptors and structural organization
2. Basic entities/objects that are constructed
3. Agency, agents, and their motives
4. Relationships, particularly between humans and nature
5. Language and rhetorical strategies
6. Ideological standpoints

In my analysis of the data I employed the concepts described in the analytical framework as I read through the texts looking for recurrent themes, which, when they emerged, further guided my research. I used these concepts to construe meaning in the texts under investigation. The concepts of ideology, storylines, and rhetoric allowed me to identify and describe meaningful patterns in the texts produced by the ENGOs.

I also perused the texts to determine which types of discourses were present, such as political, ethical, and scientific. I noted which discourses were most prevalent or emphasized and which were subordinated or absent entirely. Having closely read the texts, I was able to identify the ideological standpoints presented by each ENGO. Considering linguistic features as well as

ideology allowed for a more comprehensive understanding of the ways in which the ENGOs construct climate change.

I analyzed the texts of the ENGOs simultaneously, rather than focusing on each organization individually, in order to use the contrast to make apparent what is excluded, emphasized, or marginalized in the discourse. This method of comparison also helped in identifying similarities and relationships between the ENGOs, rather than solely focusing on differences. Analyzing the data for linguistic features, types of discourse, rhetorical strategies, and ideology allowed me to discern the distinct construction of climate change presented by each ENGO. A potential limitation of the study is that I was the sole researcher, reading and analyzing the data myself. As a result, the findings may be subject to unintentional personal bias.

Chapter Five Findings

This chapter is organized into three main sections addressing the research questions. The first addresses the ideologies of the four ENGOs as seen in the discourse of each. The second describes the constructions of climate change and nature established by each ENGO. Having established what these constructions are, the third section will discuss the rhetorical strategies used in producing the constructions and the resulting effects. Each of these sections will first report the results of the analysis of the discourse of each ENGO individually before presenting a comparison of recurrent themes seen in the discourses of all four organizations. A discussion of the significance of the results in relation to relevant literature is presented throughout each section, and a summary concludes each of the main sections.

The results of this study indicate that ENGOs, though in agreement over the material cause of climate change, construct this issue in unique ways to accomplish distinct objectives determined by the ideological positions of the organizations. ENGOs use a variety of rhetorical strategies to establish climate change as a phenomenon that reflects ideological assumptions about relationships between man and nature, the motivation and responsibility of social actors, and the approach developed to solve the issue. The particular constructions of climate change are intended to shape our understanding of the issue, influencing which social actors take action, if at all.

Ideological positions of ENGOs

The starting point for the results of this study will be to present the ideological positions of the four ENGOs as evidenced in their discourse. Carvalho notes the reflexive processes involved between ideology and discourse production, making it difficult to discuss one aspect

without the other: "On the one hand...texts result from ideological standpoints. On the other hand, media texts produce ideology: [texts] always reproduce and/or challenge a certain ideology" (Carvalho, 2007, p. 225). The ideology of each ENGO is embedded in its discourse, and in turn, the discourse works to negotiate new meanings and challenge or substantiate ideologies. An initial discussion of how the differing ideologies are displayed in the ENGOs' texts provides the setting for the more detailed analysis of each ENGO's discourse that follows. A description of each of the four ENGO's ideology is presented below, focusing on the relationship between humans and nature and the approach to change observed in each. This section first discusses individual ENGOs and concludes with a comparison of the varying ideologies seen in the data.

Earth First!

Analysis of the Earth First! data displays, often explicitly, an ideological underpinning of deep ecology. The foundation of its ideology is a position of biocentrism and a 'direct action' approach to change. The relationship of equality between humans and nature from this perspective demands that humans restructure society in a way that respects all life, human and nonhuman alike. The strategies employed by Earth First! to make these changes function outside what have become the usual means for effecting change in a capitalist society (e.g. influencing politics or business), instead using tactics that directly impact specific issues. In both its hope to revolutionize the industrial mindset and its approach to doing so, Earth First! is identified as a radical organization.

The founding principles of deep ecology are self-realization and biocentrism, both of which are seen in the data produced by Earth First!. Earth First! draws on systems science, which considers human life to be only one element in a larger, interconnected web. This organization

believes that maintaining a human-nature hierarchy will destroy the natural balance of the Earth to the detriment of both people and nature. Earth First!'s self-realization is demonstrated in the following example from its "About EF!" website: "Meanwhile scientists have confirmed what indigenous cultures have taught for thousands of years: all forms of life are vitally connected. Removing even a single strand from the web of life produces a widening ripple of catastrophe" (n.d.a).

This realization of existing as part of, rather than superior to, the natural world leads to Earth First!'s observance of the second principle of deep ecology – biocentrism, belief in equality and respect for all life. Earth First! is explicit in its adherence to this biocentric ideology, but this position is also evident in its discourse in more subtle ways. The self-descriptive data clearly describes the organization's ideology, as seen in this statement from an "About EF!" text:

Guided by a philosophy of deep ecology, Earth First! does not accept a human-centered worldview of 'nature for people's sake.' Instead, we believe that life exists for its own sake, that industrial civilization and its philosophy are anti-Earth, anti-woman, and anti-liberty.¹ (2012)

The data does not always use the term deep ecology specifically, but the biocentric worldview of Earth First! remains clear. The following excerpt from a zine, a firsthand account of an Earth First!er who dismantles a parking lot, demonstrates this belief in equality for all life forms:

I almost turned back and then I realize that this wasn't about the six by six foot plot of pavement that I was about to tear up, it was a question of identity. Am I part of the landbase or am I separate from it? If the landbase can handle it on its own and I am part of the landbase then any work I do is me doing my part as part of the landbase....If I had decided it wasn't worth the time...I would have chosen to identify myself with civilization as opposed to the landbase. (Earth First! Humboldt, 2009b, p. 14)

¹ I intentionally maintain single spacing throughout excerpts from the data to promote easier navigation through the results for the reader.

Though Earth First! aligns with the biocentric ideology of deep ecology, they do not represent what Fox (1989) would classify as an extreme misanthropic position, but rather an anti-anthropocentric stance. The evidence of this distinction can be found in the following statement, which describes a respect for humans *and* nature:

We are an inseparable part of a larger natural community. While it is alright for us to take from the Earth for our basic needs, we do not have a right to take it all. It is not up to humans to decide which species live or die. (Croatan Earth First!, n.d.)

Another important aspect of the ideology of Earth First! is its direct action approach to change, regardless of the legal implications. This organization believes that using political or economic means to influence change is neither appropriate nor effective. Seeking the complete undoing of industrial society built on capitalist values, Earth First! believes social action will change how people experience the environment, resulting in a restoration of balance between humans and nature. An example of an explanation for this direct approach is found in a description of the Earth First! way:

We have no money and no faith in the political system. We take direct action because corporations and governments are often driving the bulldozer we are trying to stop and cannot be counted on to end the destruction. It's not that the system is broken; it was never meant to work for the Earth. (Croatan Earth First!, n.d.)

Earth First! does, as Dryzek (1997) suggests of ideologies, interact with industrial ideology, though only to challenge it. Earth First! maintains that so long as humans are consumed with the idea of economic growth and willing to allow development at the expense of nature, meaningful change is impossible. Earth First! claims that capitalism, excessive consumption, and unbridled technological advancement must be rejected altogether. The very name and motto of the organization suggests this absolute denial of industrialism – "The Earth must come first" (EF!, 2012).

Evangelical Environmental Network

Analysis of the data produced by the EEN reveals, as the name might suggest, an ideology of green evangelism. The EEN discourse demonstrates the organization's adherence to this anthropocentric ideology that insists on a moral and religious obligation to care for the Earth and those suffering from environmental degradation. The EEN's approach to solving the ecological crisis is through observance of biblical tenets, which instructs Christians to protect all nature.

An important aspect of green evangelism exhibited in the EEN data is hierarchical relationships, which indicate that humans are dominant over nature, but subordinate to God. The following excerpt from the "Evangelical Declaration on the Care of Creation" written by the EEN (1994) demonstrates the role and motivation of Christians in protecting the environment:

Because we worship and honor the Creator, we seek to cherish and care for the creation...Because in Christ God has healed our alienation from God and extended to us the first fruits of the reconciliation of all things, we commit ourselves to working in the power of the Holy Spirit to share the Good News of Christ in word and deed, to work for the reconciliation of all people in Christ, and to extend Christ's healing to suffering creation. Because we await the time when even the groaning creation will be restored to wholeness, we commit ourselves to work vigorously to protect and heal that creation for the honour and glory of the Creator...We and our children face a growing crisis in the health of the creation in which we are embedded, and through which, by God's grace, we are sustained.

Creation care, as seen in the discourse of the EEN, maintains human stewardship of nature, and implies that humans may use God's creation within the limits set in the Bible. Though caring for creation ensures the Earth is able to continue to provide for humans, ultimately Christians should care for creation in order to honour God.

In an ideology of green evangelism, dedication to God means not only caring for Earth, but also for those who suffer most from global environmental issues, such as climate change.

This relationship between environmentalism and social justice is seen throughout the texts produced by the EEN, also evidenced in the creation of an initiative called 'Climate and the Vulnerable'. The following statement displays the EEN's commitment to caring for human life as well as nature:

Environmental toxins and climate change have repercussions for many of today's pressing issues from the health of our children, to global and domestic poverty, to jobs and economic growth. This makes how we care for God's creation one of the greatest moral challenges of our time. And as Christians, we also know it is a challenge that cuts to the heart of how we promote and cherish life. (EEN, 2012)

Thus a moral responsibility to care for creation also stems from an obligation to compassion, and issues of social justice are unavoidably connected to creation care in the EEN's discourse.

The final aspect of green evangelism observed in the EEN data is the belief that the current environmental crisis is the result of spiritual issues. While the EEN recognizes that uncontrolled development has caused many of the world's environmental concerns, it believes the root of these issues is sin, claiming greed, for example, has led Christians to misuse God's creation. Implicating sin and the denial of Christian duty to God, the discourse of the EEN describes the spiritual nature of environmental issues, as seen in the following example:

We have ignored our creaturely limits and have used the earth with greed, rather than care. The earthly result of human sin has been a perverted stewardship, a patchwork of garden and wasteland in which the waste is increasing. "There is no faithfulness, no love, no acknowledgment of God in the land...Because of this the land mourns, and all who live in it waste away" (Hosea 4:1, 3). (EEN, 1994)

The EEN asserts that being the result of spiritual causes, climate change must be solved through a spiritual response that focuses on the need for Christians to fulfil their intended purpose described in the Bible. Addressing climate change with an approach founded on biblical principles and committing to care for all of God's creation in order to honour him, the discourse of the EEN demonstrates an ideological position of green evangelism.

Nature Conservancy

The data produced by The Nature Conservancy reveals an anthropocentric ideology of preservationism (Corbett, 2006), but employs an economic rationalist approach to solving the current environmental crisis. Though The Nature Conservancy data describing its mission explicitly claims to be concerned with conservation, the organization's publication data also speaks to the value of nature beyond utilitarian purposes – the defining characteristic of preservationism.

The discourse produced by The Nature Conservancy establishes a hierarchical relationship between humans and nature, but to a lesser extent than an ideology of conservationism would imply. The Nature Conservancy shares the belief that nature should be conserved in order to ensure sufficient resources for present and future human use, as seen in the following statement: "More than ever before, we must find innovative ways to ensure that nature can continue to provide food, clean water, energy and other services our growing population depends on for survival (Our vision, 2012). However, this organization's discourse demonstrates that The Nature Conservancy is also concerned with preserving nature for aesthetic, scientific, and spiritual reasons. An excerpt from an article about the reasons for conserving a now privately owned forest in British Columbia shows The Nature Conservancy's ideological stance of preservationism:

Why Darkwoods matters

There is not just one feature that makes Darkwoods such an important natural treasure. The property contains a multitude of special characteristics. Some of these are tangible, like the plants and animals that make their home here. Others are less easy to see, but just as vital to the long-term protection of nature and culture in the region. For example, Darkwoods is an important source of clean water that pours into Kootenay Lake and other water bodies. It is also a highly valued part of the wilderness backyard to the surrounding communities, who use it for recreation and resources. (NCC, 2012a, para. 1)

The text first begins by describing the many reasons conserving this forest region is important, including cultural, recreational, and aesthetic purposes. This text goes on to discuss the value of Darkwoods for scientific investigation as yet another benefit of conservation:

Forest

Darkwoods contains some of the most diverse forests in British Columbia, including priceless old-growth stands of vanishing inland temperate rainforest. Because they receive most of their moisture from snow, these "snow forests" are biologically unique, yet we know very little about them. Conserving Darkwoods provides an unprecedented opportunity to expand our knowledge about one of the world's rarest ecosystems... (NCC, 2012a, para. 7)

Beyond cultural and scientific purposes, the forests provide a sanctuary for wildlife and plant life. While The Nature Conservancy's discourse does not establish nature as intrinsically valuable, the following section of this text demonstrates a departure from an extreme anthropocentric position:

Climate

Because of the great scale and topographical diversity of Darkwoods, animals and plants will be able to adapt to global climate change by migrating to different latitudes or elevations as temperatures fluctuates... (NCC, 2012a, para. 9)

In describing the role of nature as greater than material resources, The Nature Conservancy discourse asserts a preservationist stance within environmentalism. The final part of this text also identifies the economic and, again, aesthetic reasons for conserving Darkwoods:

Communities

Kootenay Lake and its surroundings have inspired and supported human cultures for thousands of years and today is no different. In the past, Darkwoods has been a valuable source of jobs in the woods. NCC strives to maintain that tradition, and continues to create active employment for the local community through our forest management activities. Darkwoods is also important for the human spirit, offering a rare opportunity to enjoy the peace, solitude and natural beauty that are increasingly rare in this world. (NCC, 2012a, para. 10)

While environmental conservation for reasons beyond economic growth suggests a less anthropocentric ideology than conservationism, The Nature Conservancy's discourse still demonstrates a human-centred worldview. Conservation is always done for the benefit of humans, including use of natural resources for economic growth, but, as seen in the example of the Darkwoods forest, conservation also benefits humans through providing opportunities for recreation and scientific discovery.

The approach to conservation used by The Nature Conservancy is what it refers to as 'Conservation by Design.' This approach is identified in this organization's discourse as "a collaborative, science-based approach with key analytical methods that [The Nature Conservancy] uses to assess and plan our actions" (NC, 2012a). Ultimately this approach results in The Nature Conservancy partnering with various groups to purchase land in a market-based solution to environmental issues. This economic rationalist approach is conservative not only in that it operates within a capitalist society, but that it *relies on* capitalism for its success.

Dryzek (1997) criticizes economic rationalism for its lack of tangible results and its lack of consideration for the complexity of Earth's systems (p. 118). The Nature Conservancy's approach, as evidenced in its discourse, fails to address ecosystems' interaction with other systems. The organization believes that conserving parts of nature will ensure a sustainable future, an assumption of economic rationalism described in the following statement from "Conservation by Design" (2006):

The Nature Conservancy has set the most ambitious goal in the organization's history: to work with others to ensure, by 2015, the effective conservation of places that represent at least 10 percent of every major habitat type on Earth...Guided by Conservation by Design, we believe we can meet this goal and ultimately achieve our mission, thus preserving healthy ecosystems that support people — their health, their livelihoods, their futures — and host the diversity of life on Earth. (p. 5)

In this example, The Nature Conservancy fails to acknowledge that ecosystems exist in relation to other of Earth's systems in ways that are not entirely predictable to humans. Taking a conservative, market-based approach and conserving nature for a range of anthropocentric reasons, The Nature Conservancy aligns with an ideology of preservationism.

Pembina Institute

Analysis of the texts produced by Pembina reveals an anthropogenic ideological stance of ecological modernization, characterized by the belief that an ecological sensibility is necessary for economic prosperity. The data presents a hierarchical relationship between humans and nature in which humans are encouraged to use the Earth's resources in environmentally sustainable and socially just ways. Self-identifying as taking a behind-the-scenes approach, Pembina hopes to aid the transition to the future it seeks by influencing government and corporate industry through research, education, and advocacy (Pembina, n.d.a)

Throughout the texts produced by Pembina, a strong correlation between environmental protection and economic growth is evident. The assertion of ecological modernization that economic development is only possible through a restructuring of capitalist societies through environmentally sound practices is seen in the following statement published by Pembina:

We are motivated by helping to create a Canadian economy that will remain strong and competitive 20, 30 and 40 years from now by leading the way in new sectors such as clean energy and clean tech. We are motivated by the prospect of a clean energy industry that employs more people than a polluting energy industry. And it doesn't stop there. We want Canadians to be safe from the disastrous health and safety impacts of unfettered, weakly regulated, and weakly monitored oilsands development. And — as radical as this may sound — we want to preserve and protect our world-famous Canadian wilderness by ensuring that we do everything we can to minimize the impacts to our wilderness, fresh water and air quality from all forms of energy development. (Whittingham, 2012b)

In this example, Pembina proposes that sustainable energy and technology are the solutions to the ecological crises that will protect nature, humans, and the economy. In its discourse, this organization claims to be ideologically neutral, priding itself on facts and reason-based solutions, but it is clear that Pembina aligns itself, perhaps unknowingly, with ecological modernization.

In early conceptions of ecological modernization, adherents gave little consideration to the social impacts of development and the impact of climate change on developing countries. However, more recently Hajer (1995) described a 'reflexive modernization', in which social actors are self-aware of the diversity of impacts and do not support unrestrained development. Reflexive modernization, also called strong ecological modernization (Dryzek, 1997), understands that a range of solutions exists, and that an appropriate balance between economic and environmental concerns will provide an economically prosperous and environmentally sustainable future. In a recent blog post, Pembina acknowledges this balance that is characteristic of strong ecological modernization:

We understand the good and bad sides of oil and gas: the significant role that hydrocarbons currently play in creating jobs and economic prosperity, along with the risks to people and the environment when hydrocarbons are developed irresponsibly. Today, even if developed responsibly, we see a long-term economic risk to relying on hydrocarbons. (Whittingham, 2012b)

Also indicative of a worldview of strong ecological modernization is a consideration of environmental justice and awareness of the problems posed by climate change for developing countries. Pembina's consideration of environmental justice seen in its description of environmental goals briefly addresses this characteristic:

...issues such as climate change...and economic/social development are global issues. Part of our strategy is therefore to attempt to influence key international decisions, work in partnership with counterparts in other countries, and make sure that Canada plays its part in a global transition. (Pembina, n.d.a)

While issues of social justice are mentioned, they are not emphasized in Pembina's discourse, potentially a result of the organization's commitment, as a national organization, to local environmental concerns. North American environmentalism has been criticized for its adherence to 'weak ecological modernization' (Dryzek, 1997), failing to acknowledge the consequences of climate change in developing countries and seeking a single solution for such a complex issue. Pembina's discourse demonstrates recognition of the complexity of climate change, but lacks emphasis on issues of social justice.

Dryzek (1997) identifies another fundamental aspect of ecological modernization as a focus on collaboration rather than opposition. This unique ability to facilitate cooperation between groups with different opinions and goals is seen in Pembina's discourse. Rather than focusing on critique or differences, Pembina recognizes that restructuring society with an ecological sensibility requires partnership among those with the power to effect change. The following excerpt from an interview with a communications specialist at Pembina demonstrates its commitment to the collaborative approach of ecological modernization:

Energy issues are far too polarized and politicized in Canada today. One of the Pembina Institute's strengths is our ability to convene a meeting of the minds among groups who might otherwise see issues from opposing viewpoints. We...encourage influential people in various sectors — including industry, non-government, government and academics — to bring their different perspectives and experiences to the table to debate and discuss a path forward that works for all parties at the table... That said, we're not afraid to be an outspoken critic when that's necessary... Our goal is always to be "tough but fair" — to be collaborative whenever possible, and constructive in our criticism. (personal communication, October 24, 2012)

Drawing on the strength of collaboration rather than the drama of conflict, and, more importantly, presenting economic growth and environmental sustainability as inescapably connected, Pembina's discourse displays this organization's ideological stance of ecological modernization, potentially leaning towards reflexive version of this ideology.

Summary

The range of ideologies identified in the discourses of the four ENGOs can be considered on a scale of anthropocentrism to biocentrism, rather than thinking of each as opposing or conflicting with the others. Ecological modernization, established in Pembina's discourse, is a conservationist ideology (Cox, 2013) that retains the most anthropocentric view in relation to the ideological positions of the other ENGOs. The Nature Conservancy's ideology, preservationism, is categorized as an anthropocentric ideology, but views nature as more than a set of life-sustaining resources. Similarly, the ideology of green evangelism seen in the EEN's discourse believes nature is valuable for reasons beyond economic benefit. Earth First!'s discourse displays an ideology of deep ecology, believing that nature has intrinsic value.

The amount of change proposed by each ENGO also differs as a result of its underlying ideology. Pembina seeks to reorganize social institutions to become environmentally sustainable through government regulations, while Earth First! hopes to change the mindsets of individuals. Both organizations seek quite radical change in the world, though Pembina's proposed transformation of government and corporate practices is certainly less extreme than Earth First!'s plan for an ecological revolution. The Nature Conservancy and the EEN suggest more moderate approaches to the issue of climate change. The Nature Conservancy relies on markets and capitalism to purchase land, and the EEN seeks primarily behavioural changes while encouraging government intervention. Though all four ENGOs desire to end climate change, the unique ideologies of these organizations provide very different solutions and definitions of what an appropriate solution looks like.

ENGOS' constructions of climate change and nature

This section will address the constructions of climate change and nature presented by each ENGO in its discourse. The constructions of climate change will be presented as storylines that address what each ENGO believes to be the cause, consequences, and solution of climate change. The constructions will also identify the perceived urgency of climate change and which social actors are given agency. Inevitably in a discussion of climate change, constructions of nature are found to be a significant aspect of the constructions of climate change, and will be presented in terms of the myths of nature described earlier in the analytical framework on pages 17-18. The constructions of climate change established by the four ENGOS will first be described separately, and the functions of the constructions will be addressed throughout. The conclusion of this section will describe the functions at greater length, suggesting possible similarities between the ENGOS.

Earth First!

The construction of climate change seen in the data produced by Earth First! can be described in the following storyline: The anthropocentric worldview held by society mistakes humans' role in the world. Man and nature are equals, and it is our moral duty to protect the Earth. Catastrophe is inevitable if we continue to deny the intrinsic value of nature. Through direct action, likeminded individuals have the power to change our current experience of the environment, and the devastation of climate change can end.

Consistent with an ideology of deep ecology, the discourse of Earth First! maintains that climate change is the result of anthropocentrism. In this discourse, individuals have the most power to influence the environmental crisis; no action is too small. In particular, the data demonstrates the strength of individuals working together as a community. Though individuals

are given agency, the focus on forming groups of likeminded individuals is evident throughout the discourse. No agency is given to social institutions such as politics, governments, or markets because these constructs are perceived to be the product of a distorted worldview. Earth First! believes, "it is ideas, not material forces, that move history: so the key to changing the world is to change ideas" (Dryzek, 1997, p. 164). The following example from an essay by Earth First! exemplifies the position that any person can change ideas, but support from a community is invaluable:

The point is not to denounce our communities, our identities, but to reveal the true power of those communities and identities if they were liberated from the hand of politics. We are alienated, isolated and disempowered when we are no longer at the Summer Rendezvous, the gathering, the potluck. We are weak without a community of support. (EF! Humboldt, 2009a, p. 10)

In the discourse of Earth First!, individuals and community are motivated by the desire to protect nature because they consider it an extension of themselves. For example, Earth First!ers often occupy trees that are to be clear cut, which in turn acts to mitigate the effects of climate change. In this discourse, the social actors believe nature to be part of their 'ecological selves' (Naess, 1987), and therefore consider it their duty to defend.

To avoid catastrophe, Earth First! emphasizes a high degree of social contact and no social regulation. Earth First! can be identified as 'egalitarian' (Douglas, 1982), believing shared efforts and altruism are the means to end the climate change crisis. Throughout the discourse it is evident that the enemy fought by Earth First! is anthropocentrism, and in turn, capitalism. Believing only a complete transformation to a biocentric ideology can save nature, Earth First! seeks radical change in the face of climate change. This extreme conviction can be seen in the following example:

It would benefit us to experience our power intimately embodied in spaces where capitalism is being called into question. This means we would not continue to exist as a mere protest movement but rather as criminals experimenting with ways to survive. We would notice that a similar fabric runs throughout society, connecting us not solely to other predominately white social movements but also to many people who survive without compromise in this world on fire. We are not individuals acting on our moral impulses; we are a social force becoming aware of its power. Becoming powerful is a matter of making our story a place to inhabit—making our story material. We dream in the face of nightmares, not as an escape into an alternate reality but as a weapon to change this one. (Sionnach, 2009)

The construction of nature as an extension of human life is, unsurprisingly, integral to Earth First!'s biocentric discourse. Nature is constructed as 'ephemeral' (Schwarz & Thompson, 1990), existing in a delicately balanced system in which humans are only one part. In this construction, unprecedented human interference will cause the entire system to collapse. An excerpt from a zine by a member of Earth First! provides an example of nature as ephemeral, being destroyed by overconsumption:

The future is uncertain. On the one hand, life on Earth and the human species as we know it are already being fundamentally altered and may simply go extinct. On the other hand, life may survive and proceed to an even more terrifying nightmare. Both futures determined by capitalism will result in a world where people must fight one another for access to resources. (Social war, 2009)

In addition to nature's construction as delicate, Earth First!'s discourse establishes nature as wilderness, unharmed by humans. Consistent with its biocentric ideology, Earth First! accepts that the destruction of wilderness ultimately hurts humans as well. An example of this connection between humans and wilderness can be seen in the following statement: "Earth First!ers understand that we can never be the healthy humans we were meant to be in a world without wilderness, clean air and the howling of the wolves under the moon" (EF!, n.d.a).

The constructions of climate change and nature seen in Earth First!'s discourse are consistent with an ideological stance of deep ecology. In particular, the equal relationship

between humans and nature plays an important role in motivating Earth First!ers to prevent environmental collapse, and consequently climate change, caused by capitalism. In the conception of an ecological self which includes nature, defending nature is almost more than a responsibility – it is a natural reaction.

Evangelical Environmental Network

The construction of climate change found in the discourse of the EEN can be summarized in the following storyline: God gave us creation to sustain us, and because of sin and overindulgence, human activity has caused global warming. Climate change causes devastating effects globally, including environmental degradation and social injustice. The ultimate cause of climate change, however, is failing to honour God. Christians – individuals, communities, churches, organizations, and particularly religious leaders – have a moral responsibility to care for God's creation including both humans and nature. Christians must immediately recognize their sin and commit to caring for God's creation as described in the Bible.

The construction of climate change that appears in the EEN's discourse demonstrates the anthropocentric worldview of the organization. Climate change is constructed as manageable through adherence to Christian faith, which calls on Christians to value all creation. The EEN establishes Christians as social actors, encouraging them to make changes in their personal lives and in their churches that will reflect a desire to protect the environment from the consequences of climate change. By providing Christians with the resources to become educated about mitigating climate change, the discourse of the EEN enables Christians to take action. The following excerpt describing the EEN's role provides an example of this agency:

Based in the scriptures, EEN publishes and develops material for churches, ministries, families, and individuals to use as they seek to know the Lord more fully, especially his care for all that he has made. We hope that you will use our ministry as a resource as you

seek to faithfully follow God's call to care for His creation in your home, family, church life, and vocation. (EEN, 2011)

In the EEN's discourse, climate change is presented as an issue that is as much about caring for the environment as it is about caring for the people most affected by it. The EEN recognizes that the effects of climate change are felt most by people in developing countries, and the Bible teaches that Christians must care for the suffering. Thus, the motivation for creation care is to protect nature and to uphold the values of compassion described in the Bible in order to honour God.

In line with an ideology of green evangelism, the most important aspect of the construction of climate change for the EEN is that climate change signifies human failure to honour God. By living beyond the limits set by God, Christians are not recognizing his authority over all creation. If Christians follow the biblical principles defined by God, they can help to minimize the devastation caused by climate change. The discourse of the EEN constructs both the cause of, and solution to, climate change as inherently spiritual. This excerpt from the "Evangelical Declaration on the Care of Creation" demonstrates this spiritual construction of climate change:

Many concerned people, convinced that environmental problems are more spiritual than technological, are exploring the world's ideologies and religions in search of non-Christian spiritual resources for the healing of the earth. As followers of Jesus Christ, we believe that the Bible calls us to respond in four ways:

First, God calls us to confess and repent of attitudes which devalue creation, and which twist or ignore biblical revelation to support our misuse of it. Forgetting that "the earth is the Lord's," we have often simply used creation and forgotten our responsibility to care for it.

Second, our actions and attitudes toward the earth need to proceed from the center of our faith, and be rooted in the fullness of God's revelation in Christ and the Scriptures...

Third, we seek to learn all the Bible tells us about the Creator, creation, and the human task...

Fourth, we seek to understand what creation reveals about God's divinity, sustaining presence, and everlasting power, and what creation teaches us of its God-given order and the principles by which it works. (EEN, 1994)

The fourth aspect of the EEN response to climate change in the previous excerpt is characteristic of the role of nature in this discourse. While Christians are the social actors able to reduce the effects of climate change, nature is presented as one means by which Christians can know God. Nature is constructed as God's provision for humans in the forms of natural resources and spiritual contact. In this construction, nature has purpose beyond economic profit or life sustaining resources to include spiritual benefit, as seen in the anthropocentric ideology of green evangelism. The following example from the data exemplifies this construction of nature:

One of the primary reasons this blog was started... was to help people see God in and through His Creation. Both the Old and New Testament teach us that God makes Himself known through the world He has made. Our lives are enriched spiritually by contact with nature. Creation is, in fact, one of God's primary ways of speaking to us... The sky helps us describe the great scope of God's love. The mighty mountains give us a way to portray God's righteousness. The ocean depths illustrate the extent of God's justice. The wings of a bird provide us with a way to depict God's protection. God's storehouse of treasures can be conveyed as a river of delights. The gift of life itself can be viewed as a fountain. (Summers, 2012)

The EEN's discourse also constructs nature as 'tolerant' (Schwarz & Thompson, 1990); nature is ultimately in God's control, but humans can manage it by adhering to biblical faith. The view of nature as tolerant in this discourse is more in line with an 'egalitarian' perspective (Douglas, 1982) that this can be done through altruism and common efforts. The EEN, however, does not deny the necessity of implementing policy, and thus also seeks some degree of social regulation. The EEN's discourse emphasizes collaboration among individual Christians, churches, and communities, indicating an inclination towards social contact. The constructions of

climate change and nature seen in this discourse align with a green evangelical ideology that promotes stewardship over the Earth in reverence of God, establishing climate change as a material and spiritual phenomenon.

Nature Conservancy

The construction of climate change revealed in the texts produced by The Nature Conservancy can be described by the following storyline: Science shows us that human activity is causing the Earth's temperature to rise, but we are misled by conflicting information. As a result, biological diversity is being lost, which threatens our quality of life now and for future generations. The effects of global warming can be minimized, but we must act now. Well-informed groups, such as NGOs, businesses, and communities can partner to conserve vital ecosystems through land privatization.

In its construction of climate change, The Nature Conservancy suggests that this issue can be managed, which is consistent with its anthropogenic ideology of preservationism. The Nature Conservancy discourse establishes several social actors who are motivated and able to manage the climate change crisis through land conservation. In particular, the discourse emphasizes The Nature Conservancy and its partnerships with individuals, corporations, communities, governments, and other nonprofits (NC, 2012b) – essentially anyone in a position to donate land or provide financial assistance is able to help mitigate the devastation of climate change. The motivation of all these social actors is described in this discourse as a will to maintain the current quality of life while ensuring a sustainable environment for future generations. Thus, their motivation is inherently self-interested.

An interesting entity that is given agency in the discourse of The Nature Conservancy is 'accurate information.' The texts produced by The Nature Conservancy describe the public arena

of climate change discourse as riddled with misinformation questioning the cause and severity of the crisis. As a result, individuals, businesses, and governments have not taken action to lessen the damage and ensure a sustainable future. The Nature Conservancy establishes accurate, or scientific, information as a means for encouraging action. An example of the problem of conflicting information and the agency of good information can be seen in the following examples from an article addressing climate skepticism:

Having just ended the warmest year and warmest decade on record, where 97% of climate change scientists believe humans are causing this warming, it is perplexing that barely a majority of U.S. public think humans are responsible for climate change. The science is very strong and extensive in showing that carbon dioxide and other heat-trapping greenhouse gasses are warming our planet at an extremely fast rate...So, why does the public not see eye-to-eye with scientists about climate change? One reason is that there is a loud community of "climate change skeptics" who make arguments for why humans are not responsible for climate change.

In just the past year or two a lot of good climate science has become much more accessible to the general public. I think the general public is smart enough to understand the basics of good climate science, and this is a good first step toward getting the public to see eye-to-eye with climate change scientists...Before you know it, climate change could be impacting your backyard – and may already be. Let's all get informed and help inform others about good climate science. (Girvetz, 2011)

In line with constructing climate change as an issue damaged by misguided communication, The Nature Conservancy discourse also constructs the entities of climate skeptics, and as a response, science. This discourse emphasizes the role of science as evidence of anthropogenic climate change, however science is not proposed as a solution to the issue. The incorporation of scientific discourse and its rhetorical purpose in The Nature Conservancy discourse will be discussed in greater detail in a later section.

In its construction of climate change, The Nature Conservancy constructs nature as 'tolerant' (Schwarz & Thompson, 1990). In this construction, nature can only be controlled to a

certain extent; that is, nature is not entirely predictable, but it can be managed to lessen the consequences of climate change. The following excerpt describing the vision of The Nature Conservancy demonstrates this construction of nature as somewhat unpredictable, but always manageable:

But despite all our progress, climate change, a rapidly expanding human population, damaging industrial and agricultural practices and other dynamics continue to threaten our natural world and quality of life. Plant and animal species are disappearing at rates estimated to be 100 to 1,000 times greater than normal. And the benefits that nature provides people – from fresh water to food to flood control – are also under siege. How is the Conservancy responding? By setting a new goal: to conserve "enough of everything," not just the rarest or most imperiled species or places. (NC, 2012d)

Nature as tolerant is a construction typical of a hierarchical worldview which believes in high degrees of both social regulation and social contact (Douglas, 1982); however, The Nature Conservancy supports social regulation only in its reliance on a capitalist society, rather than suggesting governments and policies should attempt to regulate nature. The Nature Conservancy's discourse is more consistent with an egalitarian way of life.

The construction of nature in The Nature Conservancy's discourse greatly reflects the organization's ideology of preservationism. Nature is constructed as resources for human use, characteristic of an anthropocentric worldview; however, this discourse also constructs nature as pristine wilderness beyond human interference. Throughout the data produced by The Nature Conservancy, nature is described as valuable for more than economic benefit, referred to as having a "natural integrity" or being an "unfragmented wilderness" worth preserving (NCC, 2012a; 2012b). These constructions of nature as resources or wilderness, however, are always for the advantage of humans. The ideology of preservationism is embedded in the construction of climate change and nature advanced by The Nature Conservancy's discourse.

Pembina Institute

The construction of climate change revealed in the texts produced by Pembina can be described by the following storyline: Anthropogenic climate change is, and according to trends, will continue causing harmful consequences to our economy and quality of life. The government has failed to provide a sustainable future because of its interest in economic growth without regard for the effects of global warming. It is the responsibility of the government, in collaboration with businesses, to implement policies that will ensure sustainable energy solutions. Solutions are available and attainable, but require the commitment and accountability of governments.

Pembina's discourse constructs climate change as entirely manageable through research, science, and cooperation, a product of its ideology of ecological modernization. More specifically, the discourse establishes the government as having the greatest agency, and therefore responsibility, to enforce sustainable energy practices. According to ecological modernization, the government should be motivated to address climate change concerns to further economic growth – a belief embedded in Pembina's discourse. The texts produced by Pembina mention the involvement of communities and individuals briefly, but the overwhelming focus is on the responsibility, and consequently, failure, of the government. The immense focus on the government constructs climate change as a political problem marked by a lack of action. The following statement provides an example of this construction:

What's most disappointing is the fact that the solutions to these shortcomings are readily available. Effective policy can be implemented rapidly and there are ample examples to draw from and build upon – including some Canadian provinces. The problem continues to be that the federal government seems wholly disinterested in implementing those solutions. (Pembina, 2012)

This example also points to the constructed urgency of the climate change crisis in the data. Pembina constructs climate change as a problem with available solutions that will seemingly cause little disruption for daily life. In fact, the solutions only appear to be a problem for the government, which is concerned with immediate economic growth rather than a sustainable environmental or economic future. Pembina's construction of climate change as manageable through government intervention and inevitably linked with economic progress is further evidence of an ideology of ecological modernization.

Also indicative of an ideology of ecological modernization is the construction of nature in Pembina's discourse. Nature is constructed as only a set of resources to be used, albeit responsibly, for human benefit. Pembina constructs nature as 'tolerant' (Schwarz & Thompson, 1990), believing that nature can be controlled through effective management strategies. The vision and mission statements of Pembina demonstrate its construction of nature as resources for humans, managed by humans:

Vision

The Pembina Institute envisions a world in which our immediate and future needs are met in a manner that protects the earth's living systems; ensures clean air, land and water; prevents dangerous climate change, and provides for a safe and just global community.

Mission

To advance sustainable energy solutions through innovative research, education, consulting and advocacy. (Pembina, n.d.a)

With the construction of nature as tolerant and climate change as manageable, Pembina's discourse suggests a 'hierarchist' worldview (Douglas, 1982), proposing that high degrees of social regulation and social contact are the means to sustainable energy production and the resulting economic prosperity. The data produced by Pembina demonstrates the belief that nature is predictable and can be managed to create, for example, sustainable energy solutions.

The construction of nature as manageable through research and policymaking is important in Pembina's construction of climate change because it maintains that global warming can be overcome. These constructions of climate change and nature deny "any notion that nature might spring surprises on us, defy human management, have its own intrinsic value, and its own open-ended developmental pathways" (Dryzek, 1997, p. 144). Pembina's discourse describes human dominance over nature, and as a result, over climate change if the appropriate action is taken. In this construction, the problem of climate change is as much a question of political motivation and responsibility as it is a material concern.

Summary

Each of the ENGOs recognizes the cause of climate change as a material phenomenon as anthropogenic. Each argues that the Earth's temperature is rising as a result of an increased concentration of greenhouse gases caused by human activity, and each agrees that this is causing devastating consequences globally. Each ENGO differs, however, in its constructed cause of climate change. The Nature Conservancy constructs climate change as a problem exacerbated by misinformation, while Pembina constructs it as an issue of political inaction. The EEN constructs climate change as an inherently spiritual problem, and Earth First! constructs it as an issue of a distorted social mindset. The belief in these varying causes of climate change results in very different solutions being proposed. Pembina's discourse proposes that climate change can be managed through high degrees of social regulation, but requires little social contact. The Nature Conservancy's discourse relies on moderate degrees of both social regulation and social contact to protect the Earth from dangerous global warming. On the other hand, the EEN and Earth First! suggest higher degrees of social contact are necessary, but differ in their confidence in social

regulation as a means to an appropriate solution. The EEN considers some social regulation necessary, while Earth First! resists the interference of social institutions altogether.

Another significant aspect of the constructions of climate change found in the data is the focus on collaboration by each ENGO. Pembina's discourse focuses on bringing together groups, such as corporations and governments, to create a solution for climate change that serves the interests of all parties. In this approach to collaboration, the discourse demonstrates the value of uniting economic growth and environmental sustainability inherent in an ideology of ecological modernization. The Nature Conservancy approaches collaboration in a different way, stressing partnerships for financial benefit. The organization's discourse describes businesses and individuals who are in agreement with environmental conservation collaborating with The Nature Conservancy. In the discourses of the EEN and Earth First!, partnerships prove to be a more complex issue. The EEN suggests collaborating with other environmental groups, but never in such a way that might diminish its focus on the spiritual cause of the environmental crisis. Earth First!'s discourse presents the most extreme construction of collaboration, believing collaboration with anyone who holds an anthropocentric worldview to be compromise. This adamant opposition can be seen in Earth First!'s motto: "No compromise in defence of Mother Earth."

In establishing particular constructions of climate change, each ENGO's discourse produces, but also limits, potential causes and solutions to the issue. Pembina's discourse constructs climate change as an issue that must be solved through government regulation, a construction that limits the role of the public in effecting change. Likewise, the construction of climate change in The Nature Conservancy's discourse, with its focus on markets and businesses, may hinder individual public engagement. On the opposite spectrum, the Earth First! discourse

constructs climate change as a problem in which politics have no power, instead emphasizing the power of individuals to change the capitalist mindset. The EEN's discourse describes Christians as having the capacity to act to resolve climate change, but in doing so may discourage those outside the religious community. The constructions of climate change and nature established by each ENGO are consistent with the ideological stance of each presented in the previous section.

The constructions of climate change established in the discourses of all four ENGO argue that something can be done about the rising temperature of the Earth, but what can be done and who can contribute to the solution is defined by the distinct constructions of the individual ENGOs. Regardless of the anthropocentric or biocentric ideology of the ENGOs, they remain within an ideology of environmentalism that suggests hope for a sustainable future. The specific ideologies evidenced throughout the data produce the constructions of climate change and nature, implicating particular behaviours in the cause of the problem and holding certain social actors accountable for solutions.

ENGOs' use of rhetorical strategies: tropes, metaphors, and discourses

In constructing climate change, each ENGO makes use of various rhetorical strategies, such as metaphor, rhetorical tropes, and appeals to emotion and authority. The ENGOs in this study also employ specific types of discourse, such as political, scientific, or ethical, in order to establish climate change in a way that is consistent with its ideology, and, ultimately, its goals as an environmental organization. The rhetorical use of language – that is, language used to achieve an intended purpose – shapes our perception of environmental issues, including climate change. Recognizing that *how* social actors construct climate change affects what is done about it, this section attempts to describe "...the diversity of linguistic repertoires of climate change that can coexist in a society at the same time" (Hulme, 2009, p. 231). This section will first describe the

rhetorical strategies used by each ENGO individually, providing the strengths and weaknesses of these strategies when possible. Finding the use of scientific and experiential discourses particularly relevant, this section concludes by discussing the implications of the rhetorical use of science and experience in constructing climate change.

Earth First!

Earth First!'s discourse is perhaps the most expressive of the discourses, largely due to its reliance on metaphor, apocalyptic rhetoric, and appeals to emotion. This discourse makes no attempt to appear objective, which might be most appropriate for an organization that seeks to transform attitudes rather than social institutions. It should also be noted that rhetorical strategies used are also influenced by the types of texts produced by Earth First!, such as zines, poetry, and personal essays. Earth First!'s discourse reveals metaphors and tropes characteristic of an ideology of deep ecology.

The tropes seen in Earth First!'s discourse are predominantly the apocalypse (Cox, 2013) and environmental melodrama (Schwarze, 2006). This discourse can be identified as alarmist, rather than simply alarming, a trend often traced back to *Silent Spring* (Dryzek, 1997; Hulme, 2009). Descriptions of catastrophe and impending doom if humans continue to exploit nature as they have are found frequently throughout the data. An example of the apocalypse in Earth First!'s discourse can be seen in the following statement describing the organization's concerns:

The very future of life on Earth is in danger. Human activities – from hunting to habitat destruction – have already driven countless species to extinction, and the process is only accelerating. The destruction of the Earth and its sustainable indigenous cultures has led to tragedy in every corner of the globe. (EF!, n.d.a)

Earth First!'s discourse also speaks often of death in predicting the future of capitalist societies.

The organization describes the "death throes of industrial capitalism wreaking havoc on the

healthy oases of a fractured landscape" (EF! Humboldt, 2009b, p. 6) and the rise of a "death culture, where the importance of dead things, like stock markets and oilfields, are put before the health of the land and its people" (Croatan EF!, n.d.). The rhetoric of death and doom is intended to reinforce the belief that an anthropocentric ideology can only lead to devastation.

The apocalypse trope is used to appeal to the emotions of the audience, particularly fear, associated with the construction of nature as existing in a delicate balance, now disrupted through human interference. Emotive rhetoric is an important strategy for deep ecologists, whose goal Dryzek (1997) describes as attempting to change how humans experience the world around them through a "new consciousness" (p. 155). Earth First! seeks to influence people's experience of nature, which requires passionate appeals to emotion rather than reason alone. Dryzek (1997) explains, "if the point is to convince listeners of the desirability of an intuitive and empathetic orientation to nature, then that has to be done by reaching the listener through the sensibility in question" (p. 166). Apocalyptic and emotive rhetoric may be effective for an audience of Earth First!ers, but for a broader audience, Hulme (2009) argues that the over exaggeration may lead to skepticism, apathy, and disengagement (p. 138).

Another prominent feature of the Earth First! discourse is the trope of environmental melodrama, which polarizes social actors via moral conflict. The discourse establishes two groups of social actors: biocentric environmentalists, morally defending the Earth; and all corporations, governments, and individuals with an anthropocentric worldview, corrupting nature with greed. The groups of social actors are polarized, consistent with Earth First!'s belief that collaboration means unacceptable compromise. In Earth First!'s discourse, all environmentalists with a biocentric ideology of deep ecology, Earth First! included, are described as ethical social actors engaging in admirable tasks, such as liberating the earth from civilization. Corporations

make up the majority of the opposing group of social actors, and are presented as corrupt, engaging in "industrial pillage" (Tyree, 2012). The distinct division between social actors found in Earth First!'s discourse can also be seen in the titles given to each group of actors throughout the texts. This discourse establishes Earth First!ers as "canopy ninjas" and "forest defenders" (EF! Humboldt, 2009a), which constructs them as moral social actors working to protect Mother Nature. In contrast, the social actors opposed by Earth First! are deemed "ecocidal elite" and "raging pre-apocalyptic death machines" (Gambit, 2009). The terms used to describe these two groups of social actors demonstrate the element of environmental melodrama, as Earth First!ers and those who support capitalism are pitted against one another in a moral battle. Though environmental melodrama has been criticized for exaggerating and simplifying the complexity of climate change, Kinsella et al. (2008) note the strengths of the trope for making the audience aware of unequal power struggles in environmental issues. Kinsella et al. also claim that this trope creates unity among its users, which confirms the emphasis on community and social contact in Earth First!'s discourse.

The final trope found in Earth First!'s discourse is 'lamenting Eden' (Hulme, 2009). Consistent with a construction of nature as wilderness with intrinsic value, Earth First! frequently implies that an ideal world is a primitive Eden-like state. The data demonstrates not only a need to protect nature from the effects of industrialism, but a yearning for restoration of wilderness. This sentiment is exemplified in the following excerpt:

It is not enough to ask politicians and corporations to destroy less wilderness. We need to preserve it all, to recreate lost habitats and reintroduce extirpated predators. We need to stop and reverse the poisoning of our air, water, and soil, as well as the modification of life's genetic code. It is not enough to oppose the construction of new dams and developments. It is time to free our shackled rivers and restore the land. (EF!, n.d.a)

The morally infused polarization of social actors contributes to the rhetorical trope of lamenting Eden by describing a wilderness altered by unethical human interference. Restoring nature to its original condition, then, becomes the moral duty of Earth First!ers.

The discourse of Earth First! also uses the metaphor of Mother Nature to reinforce human responsibility to care for the life that provides for them. Employing this metaphor furthers the ethical implications of destroying nature. An example of this metaphor can be seen in the following verse from a poem protesting deforestation written by an Earth First!er:

Clear-cut
Disrespect
To the wild that made us ---
Behold the greenhouse effect
(Tree life 2, p. 12)

Describing nature as "the wild that made us" demonstrates the use of the metaphor of Mother Nature, and is consistent with the concept of an ecological self, which removes the distinction between humans and nature. This merging of humans and nature demonstrates the biocentric consciousness promoted by Earth First's discourse.

The discourse of Earth First! is comprised of different types of discourse, predominantly ethical. As mentioned above, this discourse is concerned with a moral obligation to cease anthropocentric thinking. While other ENGOs use the discourses of science and politics, Earth First! focuses on the discourse that has the power to engage individuals emotionally. Science is given very little acknowledgment in this discourse, and political action is rejected as a solution, likely a result of the organization's desire to change ideas rather than institutions. In its commitment to a direct-action approach, this discourse does, however, interact with politics. The political realm is criticized for its inability to produce results, particularly when compared to the life-risking actions of Earth First!ers, as seen in the following example:

The proper place for an Earth First!er is often directly in the path of the machinery that is destroying the wilderness or your community. This may a symbolic gesture of defiance; it may also stop them in their tracks. Either way, it is a sure-fire way to take the focus out of the boardrooms and hearing chambers and put it back where it belongs – in the wilderness at the scene of the crime. (EF!, n.d.b)

The rhetorical strategies used in Earth First!'s discourse appeal to the emotions of the audience and evoke feelings of moral responsibility. The dramatic and exaggerated tropes and metaphors appear appropriate in the discourse of an organization that seeks to revolutionize contemporary society. Directed at an audience of likeminded individuals and attempting to change mindsets rather than regulations, the purpose of the use of emotive rhetoric is to construct climate change as a moral issue.

Evangelical Environmental Network

The discourse of the EEN uses a variety of rhetorical strategies to construct climate change as spiritual issue. The metaphor of Earth reaching a tipping point and the use of alarmist rhetoric provide a sense of urgency in the texts. The rhetorical trope of the 'ecological jeremiad' (Wolfe, 2008) is intended to remind the social actors, Christians, of their biblical covenant to care for creation, while the rhetorical use of 'celebrating jubilee' (Hulme, 2009) establishes solutions to climate change as a means for creating social justice and honouring God.

The EEN's discourse uses the metaphor of a tipping point, claiming that humans, in their greed, have used more of the Earth than God intended. This metaphor maintains God's hierarchy over humans, suggesting that God has a plan for the world, and humans have failed to respect this, instead denying God's will. The devastating effects of climate change are a result of this sin. The following excerpt describes the EEN's concern that the Earth is reaching its tipping point established by God: " Many of these degradations are signs that we are pressing against the finite limits God has set for creation....We have ignored our creaturely limits and have used the earth

with greed, rather than care" (EEN, 1994). The use of this metaphor in the EEN discourse differs from its use in the discourse of the other ENGOs because the threshold for the Earth is determined by God rather than natural limits.

The EEN's discourse also uses alarmist rhetoric to emphasize the urgency of the issue of climate change. The texts produced by the EEN describe reports of the death of wildlife and ecosystems and severe degradation of water, air, land, and culture. The alarmist rhetoric is often found in experiential discourse, which describes the tragedies that are already visible both globally and locally. The following example from a blog demonstrates the alarmist tone of the texts:

In Illinois, heat and lack of rain has dried up a large swath of Aux Sable Creek, the state's largest habitat for the endangered greater redhorse, a large bottom-feeding fish, said Dan Stephenson, a biologist with the Illinois Department of Natural Resources.

"We're talking hundreds of thousands (killed), maybe millions by now," Stephenson said. "If you're only talking about game fish, it's probably in the thousands. But for all fish, it's probably in the millions if you look statewide." (Ball, 2012)

The description of devastation and disaster do more than simply make the audience aware of the dangerous effects of climate change; it engages human fear for the uncertainty of the future. The use of fear, while potentially garnering attention for the issue, does not promise public engagement and may cause feelings of disempowerment (Moser, 2007). The remainder of this blog demonstrates how the discourse attempts to engage the audience by relating to previous experience:

Of course, it's just going to keep getting hotter because of global warming. Much, much hotter. By the end of this century the average temperature in the U.S. could be 11 degrees F hotter. Thus far, we've seen an average increase of 1.5 degrees F. Add 9.5 degrees on average on top of what we've already experienced. Ask yourself -- do you want to live with that? (Ball, 2012)

This example establishes the agency of individuals in responding to the climate change crisis. The construction of climate change as an issue caused by sin indicates the responsibility of Christians to take action. The jeremiad (Wolfe, 2008) is used in the EEN's discourse to denounce the behaviour of humans and warn of consequences if changes are not made. As a jeremiad, the EEN's discourse establishes Christians as having a calling to honour God, and offers a redemptive quality not found in the secular discourses. By asserting that human greed has caused climate change, the use of this trope constructs a moral obligation for Christians to reform their behaviour. Thus, the use of ethical discourse is prominent in the texts produced by the EEN. In the EEN's discourse, morality is held by a biblical standard. Christians have a responsibility to care for nature in order to honour God, and they are also expected to care for people who are most affected by climate change, constructing issues of social justice as a prominent concern in the EEN's discourse. The construction of climate change in this discourse suggests that a solution will not only restore the environment, but will also establish social justice.

The rhetorical trope of celebrating jubilee constructs climate change as a means for mobilizing support for the EEN's larger goals of social justice and renewed commitment to honour God. In the EEN's discourse, the climate change crisis is an opportunity for both environmental and spiritual redemption. The EEN does not suggest that caring for creation is sufficient for salvation; rather, it is one way that Christians are urged to follow a biblical lifestyle in obedience to God. Climate change is also constructed as an occasion for evangelizing to nonbelievers. The use of the trope of celebrating jubilee may empower Christians by providing hope for the future and a reminder that God has a plan for the world. The following excerpt from the "Evangelical Declaration on the Care of Creation" demonstrates the opportunities provided through creation care:

God's purpose in Christ is to heal and bring to wholeness not only persons but the entire created order. "For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood shed on the cross" (Col. 1:19-20).

In Jesus Christ, believers are forgiven, transformed and brought into God's kingdom. "If anyone is in Christ, there is a new creation" (II Cor. 5:17). The presence of the kingdom of God is marked not only by renewed fellowship with God, but also by renewed harmony and justice between people, and by renewed harmony and justice between people and the rest of the created world. "You will go out in joy and be led forth in peace; the mountains and the hills will burst into song before you, and all the trees of the field will clap their hands" (Isa. 55:12).

We believe that in Christ there is hope, not only for men, women and children, but also for the rest of creation which is suffering from the consequences of human sin. Therefore we call upon all Christians to reaffirm that all creation is God's; that God created it good; and that God is renewing it in Christ. (EEN, 1994)

The EEN makes use of religious, ethical, and experiential discourses most frequently, but economic, political, and scientific discourses can also be found in the data. The construction of climate change as a spiritual issue which has already seen devastating consequences locally and globally lends itself to the use of religious, ethical and experiential discourses. The following statement from Rev. Hescoc (2012) addresses recently raised fuel standards, drawing on experiences that affect the public's daily lives:

10 years after What Would Jesus Drive [an initiative of the EEN] we finally have higher fuel economy standards that consumers are demanding... This is good for our wallets, human health, job creation, and national security... With the standards announced today the average family will still save from \$6,000 to \$8,000 through the life of the vehicle. About 45 percent of our daily petroleum use goes toward driving our cars and light trucks -- 3.1 billion barrels per year, the equivalent of 620 Gulf Oil Spills. (Hescoc & Merrero, 2012)

In addition, the very use of the term 'creation care' in the EEN's discourse emphasizes the constructed biblical nature of climate change. Scientific discourse is employed in the data, typically only in measuring the material effects of climate change. The mission of the EEN urges

Christians to care for creation as God intended, and the use of political and economic discourse may not be as effective for transforming the attitudes of individuals.

Nature Conservancy

The rhetorical strategies used by The Nature Conservancy attempt to persuade the audience of the anthropogenic causes of climate change and to encourage partnerships for developing financial support. In particular, metaphors that emphasize the value of the Earth for human life and the risks of overconsumption, the appeal to scientific authority, and the rhetorical use of experiential discourse are significant features of The Nature Conservancy's discourse.

The texts produced by The Nature Conservancy employ the metaphor of Earth as Mother Nature. The Earth's ecosystems and wildlife are described as providing the diverse resources that humans rely on. Focusing on the life sustaining function of nature provides a practical as well as nostalgic reason for its protection. The following statements describing the mission of The Nature Conservancy demonstrate the use of the Mother Nature metaphor in this discourse:

The Nature Conservancy works to...to preserve the animals, plants and natural communities that represent the diversity of life on Earth – by protecting the lands and waters they need to survive. (NC, 2012a)

The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends. (NC, 2012d)

In contrast to the metaphor of Mother Nature is that of the 'tipping point' (Russill & Nyssa, 2009) which describes the threshold of human intervention on Earth. In The Nature Conservancy's discourse, the already observable results of excessive exploitation of 'Mother Nature' are shown through the use of experiential discourse. The Nature Conservancy indicates the necessity of conserving ten percent of the Earth's ecosystems before they are marred by humans, but does not describe the impending doom of the apocalypse trope. The discourse of

The Nature Conservancy implies that there is a point at which the Earth will no longer be able to support human life at our current levels of consumption, but it does not discuss the future after the tipping point. This discourse focuses on experiential discourse that depicts the current effects of climate change rather than pointing to future trends.

A metaphor found in The Nature Conservancy's discourse that is not seen in the discourses of the other ENGOs is the economic rationalist perception of mechanistic ecosystems (Dryzek, 1997). Fundamental to The Nature Conservancy's approach of land conservation is the belief that conserving only a fraction of the Earth's ecosystems will yield a sustainable environment for future generations. This construction of nature implies that natural ecosystems function independent of other systems, including social systems and other ecosystems. The metaphor of mechanistic ecosystems denies the complexity and interrelatedness of all life on Earth that is maintained in the discourse of the other ENGOs.

A crucial feature of The Nature Conservancy's discourse is the rhetorical use of scientific and experiential discourses. Scientific discourse is used by The Nature Conservancy to persuade the audience of the anthropogenic causes of climate change. The organization also incorporates scientific discourse into its 'Conservation by Design' program, which informs its conservation process. In order to provide the public with 'good' information, science is used by The Nature Conservancy to challenge the proliferation of misinformation by climate skeptics. Evidence of the use of scientific discourse by The Nature Conservancy can be seen in the following example taken from a media release supporting a lawsuit

The Conservancy is taking this action because of the critical importance of the case to...sound, scientifically based climate change policy in California... We are filing an amicus brief to share our expertise about the proven capacity of forest conservation to reduce greenhouse gas emissions and the rigorous rules the state has adopted to facilitate this role. We fully support the State's actions...that recognize the ability of forests to effectively reduce carbon emissions. Our decades of scientific research and work around

the world have demonstrated the important role forests play in addressing climate change. (NC, 2012c)

The Nature Conservancy's discourse also employs experiential discourse as a rhetorical strategy. Beyond using scientific discourse to persuade the audience of the severity of anthropogenic climate change, The Nature Conservancy also relies on details of the current effects of climate change. The following excerpt from a blog demonstrates the combination of experiential and scientific discourses seen in the texts produced by The Nature Conservancy:

Just as unsustainable debts, freewheeling lending practices and ignored financial warnings led up to the economic melt-down of 2008, so as a nation **we have ignored warnings of climate change's impacts**. But this latest season of heat and drought is driving home to many of us that **in order to protect our families from needless impacts, we need to take steps to avoid looming *climate bankruptcy***.

Much as people spent freely from savings and allowed their personal debt to climb in the early 2000s, as a society **we are rapidly depleting carbon stored in our forests and in deposits of coal and other fossil fuels underground**. By releasing too much carbon dioxide into the air, we are tipping the atmosphere's balance sheets into the red — causing our air, lands and waters to heat up. July was the hottest month ever in U.S. history; triple-digit temperatures have been common across the West and the Southeast.

And that heat is more than just uncomfortable — it threatens the lands and waters we depend on and disrupts our economy and our lives...

Corn and soy yields are down and food prices likely headed up as excessive heat has baked the soils of the Midwest. Barges are grinding to a halt on rivers too low to move them. Extraordinary forest fires in the American West have been blazing since June. And high school football players in Georgia are finding their practices curtailed — it's just too hot to play safely.

This is what climate bankruptcy looks like: charred homes from fires in Colorado; suffering in stifling, power-less homes across the East; barren fields in the parched, baked breadbasket of the Midwest. And new research from NASA scientists documents what most Americans already realize: that climate change is the only credible explanation for the extreme, destructive heat waves we have experienced around the world over the past decade. (Lowenstein, 2012, emphasis in original)

The use of both scientific and experiential discourses in this example hopes to persuade the audience that climate change is caused by humans by describing effects they may have experienced, supported by the authority of science. Interestingly, The Nature Conservancy explicitly makes the connection between climate change and environmental issues, such as drought and forest fires, that climate scientists hesitate to declare a certainty.

Pembina

Pembina describes its discourse as free from rhetoric and ideology, claiming to focus on facts and reason in an arena consumed with alarmist rhetoric. The following example is an excerpt from a blog describing the self-identified neutral position of the organization:

As a leading Canadian think-and-do tank working to make our energy systems cleaner and more sustainable, we're known for our high-calibre policy research, our facts-based advocacy and our innovative consulting work. Pembina's engineers, scientists and policy analysts are most comfortable working behind-the-scenes to ensure Canada has the best policy and technological expertise to draw on when making decisions about our energy future.

We prefer research over rhetoric, and pragmatic policy solutions over posturing and political theatre. But the level of public discourse over energy issues and environmental protection in this country has sunk so low over the past few months — with accusations, counter-accusations, slander, hyperbole and hysteria often taking the place of reasoned debate — that even Canadians who are well informed about energy issues have just cause to wonder who to believe. (Whittingham, 2012a)

While Pembina does not use the same emotive rhetoric as Earth First!, for example, it employs its own unique arrangement of rhetorical strategies. The choice to construct the organization as facts-based is a rhetorical choice in itself that intends to present Pembina as an objective social actor.

Consistent with creating an objective persona, Pembina does not employ the apocalypse trope, though Hulme (2009) finds apocalyptic rhetoric is typical of an ideology of ecological modernization. Pembina constructs climate change as an issue that is manageable, and therefore

focuses on describing solutions rather than a desolate future. A strength of Pembina's discourse is this focus on a healthy, sustainable future, or what Dryzek (1997) calls "a discourse of reassurance" (p. 146). While the organization describes the possible devastating effects of climate change, it does not do so in great detail; it does not draw on the experiential discourse seen in the discourse of other ENGOs. Concentrating on hope for the future rather than fear, Pembina's discourse rejects the use of alarmist rhetoric, instead using an approach that may increase long-term interest and involvement in providing solutions for the ecological crisis (O'Neill & Nicolson-Cole, 2009). The lack of experiential discourse in the texts produced by Pembina, however, may not be conducive for public engagement, but this is relatively insignificant in this discourse because the intended audience of the discourse is given the power to do something, such as governments.

In place of fear-inducing rhetoric, analysis of Pembina's discourse reveals the trope of 'the jeremiad' (Wolfe, 2008), though with less spiritual connotation than its use in the EEN's discourse. Pembina constructs climate change as an issue perpetuated by political inaction, and denounces the behaviour of governments and businesses. Pembina's discourse is very critical of the lack of progress towards an ecological sensibility, which the organization argues is a result of government indifference to environmental concerns. Pembina takes this a step further, claiming that the Canadian government, led by Prime Minister Steven Harper, is even sabotaging protection of the environment in the name of economic growth. The following example is from an article written in response to the Harper government's proposal of a bill that will weaken environmental protection efforts. This excerpt demonstrates Pembina's condemnation of the government, even suggesting the government is infringing on the democratic rights of its citizens:

Given the breadth and scope of the proposed changes, the Harper government is clearly doing more than simply cutting unnecessary red tape — it's doing its utmost to accelerate Western Canada's mining and energy industries, and in particular Alberta's oilsands development.

This is absurd for three reasons: one, Canada's energy industry is already operating on overdrive, short of labour and infrastructure and having a tough time keeping up with the current pace of development. Two, while Ottawa says it's making these changes to move important infrastructure projects like oilsands pipelines ahead, it risks undoing any progress Alberta and the energy sector has made in improving the energy sector's tarnished reputation by taking such a heavy-handed approach on the environment. Finally, the government's aggressive attacks on environmental advocates may very well erode the public's trust in government and large companies seeking a social license to operate, at a time when — as with the Northern Gateway pipeline — social license does not come easily.

The Pembina Institute thinks that the time has come for Canadians everywhere who are concerned about our natural environment and the state of our democracy to speak out. (Whittingham, 2012a)

The use of the jeremiad in this discourse is interesting because it is not reprimanding the behaviour of the public. Pembina establishes the government as the social actor that is capable of enforcing sustainable energy practices, and as such, the organization holds the government responsible for the lack of commitment and accountability to climate change solutions. Aside from the implication of public involvement in climate change as consumers fueling capitalism, the behaviour of the public is largely ignored because they are not given agency in Pembina's discourse. The use of the jeremiad in this discourse, then, serves only to criticize the government's inaction.

Consistent with an ideology of ecological modernization, Pembina's discourse employs scientific, political, and economic discourses rhetorically. Scientific discourse is used as an appeal to authority, providing the foundation for the research conducted by Pembina. In the texts produced by Pembina, scientific authority remains an integral aspect of the organization's

argument for the need to create sustainable energy solutions to combat climate change. The scientific research presented in Pembina's discourse is used as the foundation for presenting environmental protection and economic growth as progressing simultaneously. The inclusion of the discourses of science, politics, and the economy is also indicative of the collaborative solutions promoted by Pembina. The following excerpt illustrates the combining of discourses seen throughout Pembina's discourse:

Our work on climate change requires considering the wide variety of perspectives on, approaches to, and implications of putting climate policies in place. We take into account the political barriers that exist to implementing serious and effective climate policies, the economic arguments for and against policies to reduce greenhouse gas emissions, and the scientific basis for calculating how much we need to reduce climate pollution by and how quickly we need to take action. (personal communication, October 24, 2012)

Pembina makes use of ethical discourse only marginally. It acknowledges the issues of social justice caused by climate change, but does not emphasize this aspect. The lack of emphasis on ethical discourse in the texts produced by Pembina is not surprising considering the organization's goal of influencing policymakers and businesses, who might be less responsive to emotional appeals than individuals. Dryzek (1997) also states that an ideology of ecological modernization provides little consideration to environmental justice, which might also describe the infrequent use of ethical discourse by Pembina. Another reason for the frequent use of scientific, political, and economic discourse rather than ethical discourse might be Pembina's establishment as a national organization focusing on local concerns, which is also reflective of ecological modernization (Dryzek, 1997).

Discussion of ENGOs' use of scientific and experiential discourse

A significant feature witnessed in the data is the rhetorical use of scientific and experiential discourses. Scientific discourse is employed, though sometimes briefly, by each of

the ENGOS. The Nature Conservancy uses scientific discourse to persuade its audience of the anthropogenic causes of climate change, providing a foundation for its solution of land conservation. Pembina's discourse also uses the discourse of science, but assumes its audience recognizes human activity as the primary cause of climate change. Science, then, is used to predict future trends – an object constructed frequently throughout Pembina's discourse. These trends form the basis for scientifically-informed policy, to be implemented by governments. The EEN's discourse relies on scientific discourse only as a means for measuring the consequences of climate change, and Earth First!'s discourse makes use of scientific discourse only briefly (to discuss the interrelatedness of the Earth's systems).

While the discourses of Pembina and The Nature Conservancy use scientific discourse to appeal to the traditional authority of the discipline, The Nature Conservancy, the EEN, and Earth First! rely on experiential discourse to engage the public. The lack of experiential discourse found in the texts produced by Pembina is likely a result of its audience of governments and businesses. Studies have shown that the use of experiential and local discourses influences the public's behaviour, and is a valuable rhetorical strategy for encouraging public engagement (Eden, Walker, & Donaldson, 2006; Harrison & Burgess, 1993; Ockwell & Rydin, 2005). Though the audiences of The Nature Conservancy, the EEN, and Earth First! are very different, all three of these ENGOS seek to empower the public in some way, whether it be to build financial support or to revolutionize capitalist society. Eden, Walker, and Donaldson (2006) note that scientific authority remains an integral feature of environmental discourses, however, as witnessed in the discourses of The Nature Conservancy, the EEN, and Earth First!, incorporating experiential discourse is an additional means for legitimating knowledge about climate change.

A product of the use of scientific and experiential discourses is the focus on reason and passion seen in the data. Earth First!'s discourse is the most dramatic, both in its use of rhetorical strategies and its suggested solutions to environmental issues. This discourse uses an abundance of metaphors and tropes to appeal to the emotions of the audience. Earth First! seeks to alter the anthropogenic mindset of society through a passionate appeal to respect Mother Nature. Critical of this radical rhetoric is Pembina's discourse, which claims transparency and objectivity. The effectiveness of the different discursive approaches must be assessed in consideration of the very distinct goals and audience of the two organizations. To transform capitalist society through ideas and social action, appeals to emotion may be most influential, though this approach would do little to convince policymakers. Ultimately, the goals of the ENGOS are grounded in the ideological stance of each, which consequently inspires the specific rhetorical strategies employed by each.

Chapter Six Conclusion

In this case study I explored the influence of ideology on the representations of climate change established by four ENGOs, hoping to suggest the ways ideology is embedded in the discourse of ENGOs. In addition, I investigated the rhetorical strategies employed by the ENGOs in their constructions of climate change, ultimately hoping to understand how each ENGO's discourse advances these constructions for specific purposes. This chapter will begin by presenting an overview of the larger argument of the study, describing how the four ENGOs in this study construct the issue of climate change as a result of varying ideological stances. This chapter will then suggest implications of this study for the communication practices of ENGOs and for future research in Discourse Studies.

Larger argument of the study

This study has explored the ideology-infused discursive constructions of climate change by ENGOs, finding that although all four organizations strive for environmental sustainability, the different ideologies of each result in differing constructions of climate change. As part of the environmental movement, all four ENGOs are consistent in the view that climate change is a result of a rise in greenhouse gases caused by humans, but each organization constructs the phenomenon of climate change in a unique way to achieve its specific ideological objectives. These constructions of climate change, as achieved through various rhetorical strategies, are intended to shape our understanding of the issue, establishing the agency of certain social actors and inspiring particular solutions over others. The underlying ideology of each ENGO emphasizes the role of certain social actors rather than others, establishes particular motivations, and argues for specific solutions.

My analysis of Earth First!'s discourse revealed the most radical constructed cause of climate change advanced by the ENGOs. This discourse establishes climate change as an issue of humans' experience of the world; that is, climate change is perceived to be the result of an anthropocentric worldview, proposing that a solution would require humans to accept a relationship of equality with nature and recognize their place as only one part of a larger natural system. Earth First!'s discursive construction of climate change reveals an ideology of deep ecology, and the rhetorical strategies employed in its discourse infuse this construction with passionate appeals to morality.

This study found that the Evangelical Environmental Network's (EEN) discourse establishes climate change as a primarily spiritual issue. Constructing climate change as an issue fundamentally caused by sin, which in turn leads to greed and overconsumption, this discourse asserts that the solution to this issue must also be of a spiritual nature. The EEN's emphasis on social justice is also noted in this study of the organization's discourse. In its construction of climate change as a spiritual issue and its focus on issues of social justice, the discourse of the EEN reveals an ideology of green evangelism.

In exploring The Nature Conservancy's discourse, this study found that this organization constructs climate change as an issue marked by 'bad' information, which results in a misinformed public and conflicts regarding the veracity of claims to the anthropogenic causes of climate change. As a result of this construction, The Nature Conservancy makes frequent use of scientific discourse as evidence for anthropogenic climate change, but proposes an economic rationalism approach of land privatization as the solution. More importantly, The Nature Conservancy's discourse reflects an ideology of preservationism by suggesting the effects of climate change can be mitigated in order to provide resources for current and future generations,

but also to preserve lands upon which humans depend for recreation, scientific investigation, spiritual reasons, and aesthetic purposes.

This study found that Pembina's discourse constructs climate change primarily as a political issue, which reflects its ideological stance of ecological modernization. This construction is established through the use of rhetorical strategies that emphasize government responsibility and ground climate change in political and economic realms. In establishing climate change as a political concern, Pembina's discourse implies that nature and environmental issues are entirely manageable through both domestic and global policies. Thus, in this discourse a solution to climate change must first address the lack of political action, in turn paving the way for environmental sustainability and economic growth.

It is easy, in a comparison of the discourse of four ideologically distinct organizations, to focus on the differences in approach of each ENGO. The ENGOs in this study have constructed climate change in ways that suggest different agency, motivation, solutions, and perhaps even different visions for the future. Though these often conflicting ideas are seen across the discourses of the four ENGOs', the organizations are consistent in their desire for a sustainable future which protects both nature and human life. Discussing the objective of the ENGOs as united simplifies the visions of the individual ENGOs. I recognize that each ENGO also has distinct goals, such as the EEN's adopting creation care to honour God, or Earth First!'s anticipation of the demise of capitalism; however, I hope only to suggest that a solution to the issue of climate change might look to increased collaboration among environmental organizations.

Climate change is a complex issue which requires imaginative solutions. Hulme (2009) proposes that social actors involved with climate change underestimate the intricacy of the issue

and the range of effected systems, putting too much emphasis on the power of markets, social action, and politics individually. Constructing climate change in such a way that suggests a single solution exists provides a sense of hope for the future, but minimizes the necessity of a complex response to this 'wicked problem'. Each of the ENGOs proposes different solutions to climate change as a result of their varying ideologies, but a solution will require collaboration and compromise.

Implications

This research has implications for the communication practices of ENGOs concerned with climate change. The research demonstrates the pragmatic results of the purposeful use of language in environmental debates. ENGOs may benefit from reflecting on their communication practices and gaining a fuller understanding of the effects of aligning constructions of environmental issues with an organization's ideology. This study may also serve to increase public awareness of the ways in which environmental issues are described by important social actors, such as ENGOs, in order to instigate particular actions.

The implication of this research for the field of Discourse Studies is a contribution to our understanding of the discursive practices that shape environmental issues. The discourses of the ENGOs in this study reflect distinct ideologies, and as a result, argue for different solutions to climate change. The constructions of climate change in the discourses of the ENGOs have consequences for determining how, if at all, the problem is to be managed and who is responsible.

Future research could investigate the constructions of climate change established by social actors on both sides of the climate change debate. Such research might identify the role of ideology in constructing climate change when organizations with opposing objectives are

engaged in the discussion. Future studies might also explore constructions of other environmental issues in which ENGOs are an important social actor in order to distinguish which ideologies are present in other areas of environmentalism, to identify how these influence the discourses of the organizations, and to recognize how the discourses are shaping the reality of the environmental concern.

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Appendix A

Interview questions (Pembina)

1. Who is the intended audience for your communications?
2. How are your public documents written (e.g. who writes them, do they go through any process)?
3. What are your primary concerns when writing documents for the public?
4. How do you ensure that the documents reflect your organization's values?
5. What aspects of climate change does your discourse primarily focus on? Why?
6. Can you elaborate on what your organization seeks for the future with regards to climate change?
7. More specifically, how do the documents you produce help you achieve these goals?
8. Does your organization adhere to a particular ideology?