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ELECTION TO CANCÚN: A COMPARATIVE RHETORICAL CRITICISM OF PRESIDENT BARACK OBAMA'S SPEECHES ON CLIMATE CHANGE

by

Kevin J. Calderwood

B.A., Southern Illinois University Carbondale, 2010

A Research Paper Submitted in Partial Fulfillment of the Requirements for the Master of Arts Degree.

> Department of Speech Communication in the Graduate School Southern Illinois University Carbondale August 2012

RESEARCH PAPER APPROVAL

ELECTION TO CANCÚN: A COMPARATIVE RHETORICAL CRITICISM OF PRESIDENT BARACK OBAMA'S SPEECHES ON CLIMATE CHANGE

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Fulfillment of the Requirements

for the Degree of

Master of Arts

in the field of Speech Communication

Approved by:

Dr. Ross Singer, Chair

Dr. Todd Graham

Graduate School Southern Illinois University Carbondale June 29, 2012

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TITLE: ELECITON TO CANCÚN: A COMPARATIVE RHETORICAL CRITICISM OF PRESIDENT BARACK OBAMA'S SPEECHES ON CLIMATE CHANGE

MAJOR PROFESSOR: Dr. Ross Singer

This research paper explores the environmental rhetoric of President Barack Obama's speeches on climate change, from the time of his election in 2008 until his conspicuous absence at the Cancún climate change talks in December 2010. Climate change is an issue of societal importance because of its negative effects on the environment and the economy. It is also important to the field of communication studies because an efficacious climate change accord relies on the ability to convince other countries of the importance of this issue. Scholars have conducted little work on climate change and the American presidency, which is a major justification for this study. I utilize the model of the rhetorical situation and cluster criticism to analyze 21 speeches made by Obama on climate change. I conclude that American presidents should focus on the economic benefits of transitioning to a renewable energy economy.

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CHAPTER 1

INTRODUCTION AND RATIONALE FOR STUDY

Hart and Daughton (2005) define rhetoric as, "the art of using language to help people narrow their choices among specifiable, if not specified policy options" (p. 2). They note it is also a cooperative art, a shared experience between the rhetor and her audience. This research paper explores the climate change discourse used by President Barack Obama. Rhetorical critics should study rhetoric and climate change because the solution to climate change requires listening to other countries and involves a heavy reliance on compromise to reach a negotiated solution (Hart & Daughton, 2005). Obama's climate change discourse entails convincing other countries to adopt a climate change agreement. An international climate change accord is the desired policy option pursued by Obama, and thus, his climate change discourse represents an experiment in persuasion. In order to study climate change discourse and the American presidency, one must first understand the differences between climate change and global warming, including the meaning of the phrase "climate change discourse".

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as, "a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period" (Beade, n.d.). On the other hand, *Oxford Online Dictionary* (n.d.) defines global warming as, "a gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants." I will use the climate change phrase because it is the most scientifically accurate. Survey data also indicates that the climate change phrase is appealing across party lines, making it the most politically productive phrase. Conservative think tanks are more likely to use the global warming phrase because Republicans are less likely to believe in

the science of global warming, but more likely to believe in the science of climate change. Additionally, because climate change "lacks a directional commitment", it has provided skeptics, often conservatives, with the ability to use cold spells to refute the global warming thesis (Schuldt, Konrath, and Schwarz, 2011, p. 122). As the politically preferred term, it leaves open the political questions surrounding climate change, instead of the science. *Oxford Online Dictionary* (n.d.) defines discourse as, "written or spoken communication or debate." Thus, I define climate change discourse as written or spoken communication or debate about variations in climate occurring over a long period.

I will study climate change discourse within the context of presidential rhetoric.

Presidential rhetoric, most commonly studied in communication studies, hopes to uncover the most persuasive rhetorical strategies deployed by the president on a given occasion to a specific audience (Peterson, 2004). Early scholarship used traditional public address methods examining singular presidential speeches. Recent scholarship on presidential rhetoric expands the focus of study to include their advisers and the length of entire presidencies. This is important because the case study I will introduce draws on the ideas of both climate change discourse and presidential rhetoric.

When campaigning for the office of President of the United States (U.S.) then Senator Obama (2008a) stated, "Combating global warming will be a top priority of my presidency, and I will attend to it personally." Although he attempted to pass cap-and-trade legislation and, on occasion, speaks about climate change, this is one campaign promise he arguably has left unfulfilled. It is difficult, however, to place blame solely on Obama because he has faced a Congress consisting of Republicans and moderate Democrats that doubt the science of climate change, a devastated economy that has led the American people to rethink their priorities, and an

international community that refuses to work together to ratify a climate accord. Yet, on the campaign trail, Obama (2008a) referred to climate change as "not just the greatest environmental challenge facing our planet – it is one of our greatest challenges of any kind." The difference between the rhetoric of Obama and the policies he has pursued is the focus of this study. I hope to uncover why, even though Obama has spoken frequently and passionately about climate change, he has failed to ratify a new climate change accord that would "reduce U.S. carbon emissions by 80 percent by 2020" (Obama, 2008a). Obama, of course, is not the first president to try to pass environmental legislation, and I hope is not the last. Tracing the environmental movement in the next section will help situate Obama within the broader environmental movement.

The environmental movement in the U.S. remains in constant flux. In its past, the movement has claimed victories, even when unfriendly factions control the policy-making apparatus. Rachel Carson's book, *Silent* Spring, launched the modern day environmental movement in 1962 (Stauber & Rampton, 1995). President Nixon established the Environmental Protection Agency (EPA) because of the early successes of this movement (*The Guardian*, 1992). The most important issues in the early days of the modern environmental movement dealt with local forms of pollution, such as DDT and water impurities (Stauber & Rampton 1995). The movement recently has taken an international turn, focusing on greenhouse gas emissions and climate change.

The Societal Importance of Climate Change

The National Academy of Sciences wrote the first report on climate change in 1979 (Friedman & Mandelbaum, 2011). In 1990, Congress passed the Clean Air Act, expanding the powers of the EPA, allowing the agency to regulate emissions of ozone depleting chemicals. The

global community worked together to enact the Montreal Protocol designed to stop the depletion of the ozone layer in the Earth's atmosphere (Nye Jr., 2002). The Kyoto Protocol, a climate change accord ratified by 191 countries, failed because the U.S., at the time the world's largest emitter of greenhouse gas emissions, did not agree to implement the treaty. Others argue that the Kyoto Protocol was seen as flawed from its conception because it was based on previous treaties enacted to protect the ozone layer, ignoring the complexities of climate change (Connor, 2007). Despite past successes, the U.S. has been unable to put together an effective policy to combat climate change. The failure of the Kyoto Protocol represents only one small justification for studying climate change discourse and the American presidency. Studying climate change discourse is relevant to both society and the communication studies discipline. The current political discourse in the U.S. on climate change has regressed to a discussion about whether the problem even exists. On matters concerning the validity of climate change research, I prefer to defer this issue to the IPCC, a group of climate scientists that issue reports based on the most upto-date research on climate change. They believe that humans caused climate change, meaning that it is anthropogenic (Solomon et al., 2007). According to the National Academy of Sciences, "97-98% of the climate researchers most actively publishing in the field support the tenets of ACC [anthropogenic climate change] outlined by the Intergovernmental Panel on Climate Change" (Anderegg, Prall, Harold, & Schneider, 2010, p. 1). Climate change is a real and dangerous threat to the environment and the economy.

Convincing the public to act on climate change is important because of the dire consequences scientists predict could occur if society fails to act. According to the IPCC, weather events such as "droughts, heavy precipitation, heat waves and the [increased] intensity of tropical cyclones" are a result of changing levels of greenhouse gases in the atmosphere

(Solomon et al., 2007, p. 7). Climate change represents "one of the most pervasive threats to our planet's biodiversity" ("Global warming," 2006). A report issued by the Obama administration argues that if society leaves climate change unabated, it will have negative consequences on the world economy. Due to heat-related illnesses and deaths, the effects of climate change will strain the labor market. Furthermore, the damage caused by droughts, floods, and worsening hurricanes might have an even worse effect on the overall economy (Rampell, 2009). The worst-case scenarios indicate that some countries might lose up to 30% of their gross domestic product (GDP) (*Shaping*, 2009).

In light of this data, climate scientists express doubt when predicting the consequences of climate change. Friedman and Mandelbaum (2011) argue, "Unfortunately, it is not possible to know in advance, how, whether, and when global warming will trigger any or all of these things" (p. 191). However, even if climate change causes no damage to the environment or the economy, the positive benefits of developing a renewable energy economy is indispensable. Currently, the U.S. is falling behind countries like Germany and China that are investing heavily in renewable energy technology (Meehan, 2011). Failing to develop a renewable energy economy would destroy our economic competitiveness. The U.S. will not be the global leader in the 21st Century if it fails to transition to a renewable energy economy, just like the British would have failed to lead in the 19th and 20th centuries if they did not lead in the Industrial Revolution. History demonstrates that the country that leads in new technological innovations is typically situated at the top of the international arena for the near future (Khalilzad, 1995). Due to the politically charged nature of climate change discourse and uncertainty of the consequences of climate change, future presidential discourse on climate change should focus on the economic benefits of transitioning to a renewable energy economy. However, despite the noted benefits from taking

action on climate change, the international community has failed to act. This issue is also important to environmental rhetoric scholars, since so much of the success of the movement relies on effective communication strategies.

Environmental Rhetoric and the Presidency

Establishing a justification for studying climate change discourse from an environmental communication perspective is not difficult because of the expansive literature base that currently exists on the subject. However, there is very little literature on climate change discourse and the American presidency. The greatest challenge facing Obama in completing an efficacious climate change accord is communicating the risks associated with climate change. For me, this represents an inherent problem of persuasion on behalf of those who want to solve the problem. The information that climate change is real and dangerous is widely available to most everyone in the world. However, leaders in the U.S. have failed to convince their constituents of these threats. Although scholars study risk communication extensively, there are currently no methods developed to communicate the risks of climate change. Despite the fervent efforts of climate scientists, politicians, and environmentalists, they have been unsuccessful in developing an effective frame for the issue of climate change (Dilling & Moser, 2007). Survey data demonstrates that people know about the issue of climate change, which means this disconnect occurs with how the risk of climate change is communicated (Dilling & Moser, 2007). One of the main reasons why Obama has failed in this regard is because the effects of climate change are not immediate, unlike job losses stemming from an economic recession (Dilling & Moser, 2007).

Climate change is one of the greatest issues facing the current generation of American leaders, especially when taking into account past failures from previous presidents. Despite this, only one edited volume in communication studies covers environmental communication and the

American presidency (Peterson, 2004), and only one study discusses the transnational nature of climate change discourse and the American presidency (Carcasson, 2004). The review of literature that follows demonstrates there are currently no studies that use methods from traditional public address scholarship to evaluate presidential climate change discourse. This is surprising considering what many believe to be the U.S.' unique responsibility in building a coalition to stop climate change. The Polaris Institute, an organization dedicated to helping citizen groups in the developing world fight for social justice, "applauded the U.S. for its reengagement in climate discussions" ("Letter to U.S. President Obama"). Despite these earlier commitments, "the U.S. is becoming a stumbling block in the negotiations" ("Letter to U.S. President Obama"). This study is important for society writ large because the U.S. plays a unique role in fighting climate change, and the decision to shift to a renewable energy economy is necessary for continued economic competitiveness. As a discipline, communication studies must reengage rhetorical critiques of presidential speeches because the ultimate goal of studying presidential rhetoric is "enacting a strong and healthy democratic culture" (Peterson, 2004, p. 9). Thus, this study is important to advancing communication studies literature and to society as a whole.

Preview of the Remaining Chapters

This chapter has introduced the rationale behind studying climate change discourse and the American presidency. Failing to ratify a climate change accord means the U.S. will lose its status as the global leader, and might have detrimental effects on both the economy and environment. Hess (2012) argues that transitioning to a renewable energy economy, "is fundamental to our economic growth, environmental sustainability and national security. With five percent of the world's population and 20 percent of its energy use, the U.S. has an obligation

to lead globally" (para. 1). In this research paper, I explore Obama's public statements on climate change from his election until his noticed absence at the December 2010 climate change talks in Cancún. In conjunction with Lloyd F. Bitzer (1968) and Richard Vatz's (1973) model of the rhetorical situation, I examine these speeches by using Kenneth Burke (1973) and Sonja K. Foss' (2009) cluster criticism method. I hope to uncover Obama's worldview, specifically why he has made these rhetorical choices and how they function in relation to climate change action. I argue that instead of focusing on environmental impacts and potential economic harm from climate change, Obama should focus on the positive benefits a climate change accord can have on transitioning to a renewable energy economy, both for the U.S. and the rest of the world. I begin with a review of the relevant literature on climate change discourse. Then, I explain the methods I employ, and present three research questions. Finally, I present my analysis of Obama's speeches on climate change.

CHAPTER 2

REVIEW OF LITERATURE

After surveying the current literature on climate change, it is clear there is very little scholarship on climate change discourse and the American presidency. There are only two book length works in communication studies dedicated to environmental communication and the American presidency, and they do not focus on climate change (Peterson 2004; Short 1989). This review of relevant literature explores the current debates in the fields of communication studies and political science. First, I review the current work done on environmental discourse and the American presidency. Second, I examine the debate on how we should frame the issue of climate change. Finally, I demonstrate several gaps in the existing literature, and explain how my research paper fits within the debates in the discipline.

Environmental Rhetoric and the American Presidency

Peterson (2004) begins her edited volume on environmental rhetoric and the American presidency, *Green Talk in the White House*, by framing it in terms of the rhetorical situation. She describes presidential rhetoric as constrained by both the political and natural environment. Even though Peterson frames her own edited volume around the rhetorical situation, no studies apply Bitzer's (1968) model of the rhetorical situation to criticize presidential rhetoric. Given the environmental and economic consequences caused by not transitioning to a renewable energy economy, it is shocking that there is little to no literature written on climate change discourse and the American presidency. This noticeable gap in the literature creates a space for my research paper in the communication studies discipline. Even though there is little work conducted on the rhetorical situation and environmental communication, Peterson's (2004) volume traces the history of environmental communication and the American presidency from Theodore

Roosevelt's conservationism to Bill Clinton's pragmatism. I begin the discussion of specific American presidents with Roosevelt, widely considered the first environmentally mindful president.

Theodore Roosevelt.

In two studies, Dorsey (2004) and Oravec (2004) examine the public speeches of government leaders in the Roosevelt administration. Dorsey (2004) explains how Roosevelt drew on God/Devil metaphors to chastise Americans into finding redemption through the development of a "civil religion" in favor of conservationism (p. 57). In this context, Roosevelt's civil religion equated the conservation of the environment with God's work. This form of rhetoric continues today in the form of the ecological jeremiad. Dorsey explains the rhetorical strategies employed by Roosevelt, and Oravec (2004) demonstrates how the administration successfully constructed an identity for their audience in favor of conservationism. Oravec's findings are important because she demonstrates how Roosevelt successfully merged an expansive social movement with effective government conservation policies. These findings can inform current leaders how to turn the American public that is unsure about whether to act on climate change into supporters. The next study, on Franklin Roosevelt (FDR), shifts the focus from the text of speeches to include editorial cartoons. This shift is important because it demonstrates a growing trend towards the critical/cultural tradition in communication studies, leaving traditional public address scholarship behind.

Franklin Roosevelt.

Daughton and Beasley (2004) argue that FDR, as a rhetorical-scientist, fostered a popular appeal for conservation by connecting this issue with the public's social and economic concern. This approach is much more applicable to today's debate on climate change because of the

economic situation faced by the U.S. and the rest of the world. FDR said very little in his public speeches about the intrinsic value of protecting the environment, instead focusing on short-term economic gains (Daughton & Beasley, 2004). In a direct contrast with his cousin, FDR does not attempt to build a popular identity in favor of conservation, instead focusing on the economic constraints placed on his administration by the Great Depression. It took nearly 30 years for another environmental president to emerge, and it turned out to be Richard Nixon.

Richard Nixon.

Vickery (2004) traces the development of environmentalism in Nixon's administration. Nixon takes up an issue considered liberal, but he couches the argument in conservative terms (Vickery, 2004). However, he framed his rhetoric in economic terms, very similarly to FDR, one of the most progressive presidents in the history of the U.S. This demonstrates disconnects between two political ideologies over the environment that have only worsened with time. Framing the environment in terms of conservation in the early 1900's was much easier than it is today, since the U.S. is in the midst of an economic recession. However, if a Republican president was willing to create the EPA in the 1970's, there is definitely something that we can take from his rhetoric and apply it to the current debate on climate change. As this historical review continues, it is important to note the lack of studies conducted on the first American president to place solar panels on the White House, Jimmy Carter. It is surprising that there are studies that cover anti-regulation presidencies, but ignore one of the most successful environmental presidents in America's history. The timing is also interesting because the National Academy of Sciences published its first report on climate change during the Carter administration. Despite this lack of focus on Carter's presidency, there is work I highlight from one of the most pro-business presidents, Ronald Reagan.

Ronald Reagan.

No president since Roosevelt successfully constructed an identity for his audience as well as Reagan. This identity, however, advocated for free-market solutions to environmental problems as the true American way (Short, 2004). Short's (1989) book, entitled Ronald Reagan and the Public Lands, traces the press releases from the White House between 1979 and 1984. He attempts to uncover the rhetorical choices made by Reagan that caused the conservation consensus to collapse. The most important case study in the book covers public land disputes in Nevada. Initially in favor of public use, the Reagan administration switched to a policy of privatization. However, after pushback from the environmental movement, Reagan's Secretary of the Interior resigned and the administration reneged on its pledge to privatize public lands (Short, 1989). This book is especially important to my research paper because it demonstrates how a strong environmental movement pressured a very conservative administration to reverse its prior positions. The lessons learned from this study can enhance current strategies aimed at defeating a conservative movement opposed to nearly all forms of environmental regulations. Even when examining Clinton's rhetoric, it is clear that Reagan's influence on environmental discourse endured after he left office.

Bill Clinton.

Cox (2004) and Moore (2004) examine Clinton's rhetoric on the environment, which is important for climate change discourse because he was the first Democrat to hold the office since climate change exploded on the international scene. Both agree that Clinton took a pragmatic view on the environment in an attempt to balance environmental protection and economic interests. Clinton's obsession with his popularity led him to engage in a "politics of reconciliation" (Cox, 2004, p. 166). In his inherent drive to please everyone, Clinton allowed the

frames of the Reagan administration to permeate American culture. Like Cox, Moore (2004) explores the rhetorical strategies employed to appease both the timber industry and environmentalists critical to his reelection. Even though it is not possible to please both interests, Clinton developed this irony in an attempt to please both parties.

These studies demonstrate that Clinton's foremost goal was striking a balance between economic growth and environmental protection. However, by the end of Clinton's first term, I believe he was more concerned about re-election and his place in history. The lessons of the Clinton administration demonstrate how best to manipulate the environmental movement, not necessarily to serve its interests. Moore (2004) makes this clear in his study when he points out the ironies created by Clinton when he attempts to balance the interests of the timber industry with those of environmental lobbyists. This is important for my research paper because I also propose a pragmatic view of stopping environmental degradation by arguing for the benefits of transitioning to a renewable energy economy. While Clinton took a pragmatic view on environmental regulation, he also made an important decision to disclose classified documents about atomic testing during the Cold War. Henry (2004) explores the Clinton administration's decision to turn to a surrogate to disclose classified details about secret atomic testing during the Cold War. The goal of the study is to establish a new perspective about communicating risk. By using Nye Jr.'s method of risk communication, he calls for the fusing of an ethos of consequences with an ethic of virtue (Henry, 2004). This is important for environmental communication because it helps establish criteria for ethical decision-making. This form of decision-making requires an evaluation of motives, means, and consequences of actions (Henry, 2004). If applied correctly it can also help uncover the rhetorical choices made by the speaker because it combines why they spoke with what they said, and explains the result of their decision to speak. Clinton's time as president represented a return to the economic focus of previous presidents like FDR. George W. Bush, like Reagan, approached environmental issues with a privatization and pro-business agenda, but uses different, more effective, rhetorical strategies.

George W. Bush.

Wolfe (2007), and Short and Hardy-Short (2003) examine the Bush administration's Healthy Forests Initiative. Short and Hardy-Short inquire about the events that led up to the formation of the initiative, whereas Wolfe (2007) analyzes Bush's 2003 speech on his Healthy Forests Initiative. In the previously mentioned study, the authors conclude that Bush was able to redefine the context of the public land debate, specifically by changing the name of the legislation to win over crucial Democratic votes (Short & Hardy-Short, 2003). This is a clear example of where framing is of utmost importance in debates concerning environmental policy.

Wolfe (2007) compares the rhetoric of security deployed during the War on Terror with the rhetorical choices made by Bush during this speech. Through a close textual analysis, Wolfe identifies association, urgency, and control as tropes present throughout his speech. He concludes that Bush is able to sidestep the adversarial framing of his policies as anti-environmental by shifting the discourse to themes present in the War on Terror (Wolfe, 2007). The issue of framing currently dominates the discussion of climate change discourse, making it no surprise that Bush would frame the debate on an issue that he was strongest.

Kennedy (2007) also notes some of the more clever strategies employed by the Bush White House to conceal changes to existing environmental legislation. Kennedy states,

The White House has used all kinds of ingenious machinations to conceal this radical administration from the American public, including Orwellian rhetoric.

When they want to destroy the forests, they call it the Healthy Forests Act. When they want to destroy the air, they call it the Clear Skies Bill. (p. 24)

This is a great example of the ways in which the Bush administration used renaming as a tactic to cover up their policies that undermined existing environmental reforms. Kennedy also draws attention to hundreds of environmental policy rollbacks that occurred during the Bush administration, which he notes are documented on the Natural Resources Defense Council's website

These studies on the environmental discourse of the Bush administration are just as, if not more important, than the studies from more environmentally friendly presidents. They demonstrate that a president can shift the focus of the discussion from the issue at hand (healthy forests), to an issue that resonates more with the audience (security and the War on Terror). This is similar to the tactics employed by the FDR administration, when he framed environmental protections as good for the economy. Although environmental communication scholars tend to disagree with the environmental stances of the Bush administration, his rhetorical tactics can inform successful strategies for pushing a more robust environmental agenda. These strategies are more important today than ever before because of the increased threats posed by climate change. However, stopping climate change requires more than just action by the U.S., which makes it necessary to study the transnational nature of environmental issues.

International environmental issues.

Carcasson (2004) explains how the Bush and Clinton administrations approached international environmental issues from 1988 to 2000. He challenges future presidents to undo the Reagan-era framing of international environmental issues as solved by individualism and consumerism. However, he suggests presidents should not abandon notions that our country is a

shining "city on a hill," which has continuing appeal among Americans (Carcasson, 2004, p. 280). The current literature on environmental discourse and the American presidency represents a big tent approach to environmentalism that includes as many interests as possible.

State of environmental rhetoric and the American presidency.

The current state of communication studies research on environmental rhetoric and the American presidency is quite slim. When considering the issue of climate change, there is even less available literature. Only the Carcasson study discusses climate change and the most recent works on the Bush administration deals with his initiatives on national forests. There are also significant gaps that exist with the coverage of Carter, one of the more environmentally friendly presidents. Although the discipline is mostly critical of recent presidents and their rhetoric on the environment, they are light on offering strategies to fix the problem. One area that will grow in importance as this research paper continues is the framing and counter-framing of environmental problems across political ideologies. It is clear that the conservative, pro-business frame has dominated how best to manage the environment. Next, I examine studies on the importance of framing to climate change discourse and the American presidency.

Communicating Climate Change

This section discusses the current literature across three fields on climate change discourse. The focus of most studies on climate change discourse deals with framing. It is impossible to ignore this as the field's focus when considering the numerous studies in the Peterson (2004) volume that discuss how previous presidents have framed environmental issues. I explain the importance of framing to the issue of climate change, and then discuss the current state of the literature on climate change discourse.

Framing.

As previously noted, environmentalists have lost much of the ground they gained in earlier administrations because the movement lacks an appropriate framing of the issue (Lakoff, 2010). Nisbet and Kotcher (2009) define framing as explaining a complex issue such as climate change by drawing on the core values of individuals, and reaching the intended audience with a specifically crafted message. Weber and Stern (2011), environmental psychology scholars, identify the framing of climate change by the media, scientific experts, and politicians, as intrinsically important to the public's understanding of climate change. Framing is important to the environmental movement because it influences political ideologies and decision-making (Weber & Stern, 2011). The environmental movement has attempted unsuccessfully to create a frame connecting economic growth with environmental protection (Lakoff, 2010). Instead, the pro-growth and anti-regulation frames of the Reagan administration, and the renaming tactics and security frames of the Bush administrations, still dominate the environmental discourse of the day. This noticeable gap in the literature is precisely where my research paper fits in, as I attempt to justify a new strategy based solely on non-environmental frames. The next study, which draws on survey data, shows that how individuals talk about climate change affects the way people perceive the issue. This supplements the reasons demanding a new environmental frame offered by Lakoff (2010).

The words we choose often effects the results we get, as Schuldt, Konrath, and Schwarz (2011) demonstrate in their study on whether to say "climate change" or "global warming." Schuldt et al. (2011) conclude that the choice of "global warming" or "climate change" does not influence Democrats and Independents. However, these words with all their attached associations, proved significant for Republicans (Schuldt et al., 2011). Results of other public opinion surveys demonstrate the importance of media framing. Lorenzoni and Hulme (2009) performed survey

research and discussion groups in Italy and the United Kingdom showing that the similarity of these outlooks depended almost entirely on the level of information held by the respondent. The media, and thus the framing employed, is significant in determining attitudes on climate change. Although this research paper does not focus on media frames, these studies can help identify whether Obama's word choices are beneficial when speaking on climate change. Activists, such as opinion-leaders in public will campaigns, drive stories published in the media.

To engage the public successfully on climate change requires leaders to identify, recruit, train, and retain those who serve as opinion-leaders in public will campaigns (Nisbet & Kotcher, 2009). The authors conclude that although climate skeptics have used opinion-leaders, those fighting to stop climate change must also be willing to use them out of a dedication to the environment (Nisbet & Kotcher). This article demonstrates the necessity of framing, but also calls into question the potential use of surrogates in climate change discourse. Although this research does not directly inform my research paper on climate change discourse and the American presidency, it can help future studies that want to study presidential surrogates. Despite the importance of framing to climate change discourse, the following study challenges this focus in academic research, instead calling for a return to strategic communication.

Cox (2010) criticizes public will campaigns that rely on strategies from the 1970s and 1980s. With the current frames established during the Reagan administration dominating environmental discourse, the old strategies of the environmental movement do not appear successful on current energy and climate issues. By creating new strategic communicative strategies, the environmental movement can expose vulnerable systems of power in an attempt to advance an agenda to stop climate change (Cox, 2010). The call for new strategies and framing devices are not mutually exclusive, but rhetoricians are most apt at developing successful

framing strategies, whereas public relations scholars and experts are more likely to produce successful public will campaigns. I believe there is a unique opportunity present to examine the word choices of Obama while also calling for new strategies in the environmental movement. These two approaches are not mutually exclusive, but instead are actually complimentary. My research paper focuses on the rhetorical motives behind Obama's speeches, and a combination of these two approaches allows researchers to draw fruitful conclusions. There are several frames within climate change discourse, the most dominant being the use of apocalyptic rhetoric and fear appeals.

Apocalyptic and fear rhetoric.

The dominant frame currently critiqued in the literature is the use of apocalyptic and fear rhetoric in climate change discourse. The following five studies demonstrate the discursive space for an environmental rhetoric that does not focus entirely on the use of fear or apocalyptic rhetoric. Two studies within this section (Johnson, 2009; Foust & Murphy, 2009) call for a revising of apocalyptic rhetoric, instead of completely dismissing its use. Since the authors do not conclude that individuals should focus exclusively on apocalyptic rhetoric, this lack of a consensus on a truly dominant frame justifies this research paper. This lack of a consensus represents a major gap in the literature.

Russill (2008) examines the growing power of epidemiological reasons to act on climate change. This study demonstrates that there is space for non-apocalyptic framing in climate change discourse. However, this type of framing still relies on determining the certainty of the effects of climate change, which are not currently occurring. A major barrier to spurring action on climate change is that the negative implications are not immediate. Until there is a massive number of public health issues directly linked to climate change, this type of framing will fail to

create an impetus to act on climate change. This conclusion creates a clear gap in the literature around any consensus for how leaders should communicate climate change, representing the clearest justification for my research paper. There are supporters of a form of tempered apocalyptic rhetoric and fear appeals, instead of more traditional forms of apocalyptic rhetoric.

Foust and Murphy (2009) examine the framing of climate change in the press. They conclude apocalyptic framing limits individual agency because prophetic directives rely on intrapersonal action. The second implication is that it allows the emergence of climate skeptics who label scientists as false prophets and environmentalists as alarmists. Based on the importance of media in determining attitudes on climate change, this study sheds light on the necessity of a new environmental rhetoric. Although the authors do not conclude that all forms of apocalyptic rhetoric carry negative implications, this study hopes to demonstrate that the benefits outlined by Foust and Murphy are clearly outweighed by the costs. Johnson (2009) focuses on the use of the apocalyptic rhetoric and scientific determinism in An Inconvenient Truth. Al Gore draws on his own ethos and scientific discourse to temper the apocalyptic rhetoric that currently surrounds climate change. By comparing An Inconvenient Truth to Silent Spring and Population Bomb, Johnson contrasts the apocalyptic rhetoric of a previous time with Gore's tempered apocalypticism. Most importantly, Gore constructs an audience that possesses agency that can stop climate change. This study demonstrates the limitations of apocalyptic framing, mainly in that apocalyptic rhetoric is not successful by itself. Instead, a more "tempered" form is required. This is an important distinction because the dedicated effort Gore places on constructing agency for his audience is unlikely in presidential addresses, especially given the limited amount of time Obama spends discussing this issue. Johnson's argument directly affects the direction of this research paper because Obama's 21 speeches on climate change do not equal the amount of time

Gore spends talking about climate change. Although these studies indicate there is support for more tempered apocalyptic rhetoric, there are also studies that suggest climate change rhetors should abandon fear appeals completely.

Like the Russill (2008) study, O'Neill and Nicholson-Cole (2009) examine the use of fear appeals in climate change discourse. Connecting climate change to threats to human life appears the easiest way for journalists and politicians to capture the public's attention, but the results of their study indicate that appeals to fear make climate change a distant issue (O'Neill & Nicholson-Cole, 2009). Similar work done by Lorenzoni and Hulme (2009) shows respondents found information that was tailored away from alarming and shocking rhetoric more persuasive. Building a coalition in favor of a climate change accord requires a new direction in climate change discourse away from traditional forms of apocalyptic rhetoric. O'Neill and Nicholson-Cole's (2009) argument expresses the need to connect the climate change issue to something closer to individuals. Now, there is nothing more important to Obama's constituents than economic growth, and this research paper argues for an environmental rhetoric based on the necessity to shift from apocalyptic rhetoric to a more tempered climate change discourse.

At this point, it is easy to make the case for a new framing of environmental discourse on the climate change issue. All of the studies conclude that a strict focus on apocalyptic or fear rhetoric demobilizes audiences from taking action. The success of Roosevelt in employing God/Devil metaphors and offering his audience a chance for redemption seems unpersuasive in today's society. In my reading on the available literature, it suggests a shift away from the use of apocalyptic and fear rhetoric. There are some alternatives to apocalyptic rhetoric and fear appeals, but they are also lacking in an overall strategy for climate change discourse and the American presidency.

Other frames: Myth, ecological jeremiad, synecdoche, accuracy, and analogy.

Rosteck and Frentz (2009) employ Joseph Campbell's monomyth as an organizing structure, arguing that several tensions exist within the genres present in the film. Gore's documentary represents myths of heroism and accomplishment, coupled with personal growth and change. They conclude that the documentary represents elements of narrative, scientific fact, and ecological jeremiad, arguing its success lies mainly in its ability to simultaneously criticize politicians and call on grassroots solutions to climate change. Like Johnson (2009), the authors provide similar conclusions about the use of rhetoric in the documentary.

Gore's ethos is important in constructing an audience that feels like they can make a difference in the fight against climate change. Past work implies that only Reagan has used myth, but a content analysis of Obama's speeches on climate change might reveal if myths are also present in his speeches. I still doubt that any modern president would spend enough time on climate change to construct a new environmental frame based on myth. Modern day leaders also use myth in an attempt to compel their followers to support renewable energy.

Singer (2010) examines Thomas Friedman's Code Green thesis proposed in 2008. Friedman asks his audience to identity with a new American myth of the "Re-generation" (Singer, 2010, p. 137). Singer demonstrates how neoliberal rhetoric, infused with ecological jeremiad, develops through a simple problem-cause solution mindset. Singer defines neoliberal rhetoric as, "emphasizing cost-benefit calculations, the human faculty of choice, perpetual modification amidst global change, citizenship as value production, and social order as a free market commodity" (p. 136). He identifies individual transformation, a return to the values of freedom and democracy, and evolution of the American frontier myth of Manifest Density in Friedman's Code Green thesis. Singer admits that Friedman's attempt to mix capitalism with the

environmental movement is a necessity, as neoliberalism is not likely to disappear anytime soon, but cautions rhetoricians from blindly accepting free market policies. Previous presidents such as FDR and Clinton recognized the need to work within the existing economic structure. Both recognized that protecting the environment was a necessity, but they realized they must frame the argument in capitalistic terms. Although attempting to work within the current economic structure is necessary to produce a transition to a renewable energy economy, scholars should recognize the public's desire for accuracy in the reporting of climate change science. The following study shifts the focus to shed light on the debate over the uncertainty of climate change.

Studies by Moore (2009) and Mellor (2009) examine the search for accuracy and certainty in climate change discourse. Moore (2009) argues that the use of synecdochic form can serve as a useful antidote to the competing ironies of the uncertainty of climate science. Mellor (2009) concludes that a search for the truth about climate change must run deeper than just the science, and that rhetoricians must investigate more than just the text of the artifact. The main problem with this investigation into framing is that it assumes individuals care about whether climate change science is certain or not. These studies are certainly important to the field of communication studies, but they lack an application to a wider audience based on the conclusion the authors draw. Previously reviewed studies that draw on survey data as well as focus groups show the necessity in connecting an issue with an individual's life chances.

The role of uncertainty in science is good, since it is part of the scientific method. This represents yet another significant reason why focusing on the benefits of a renewable energy economy is more important than proving the certainty of climate change. A final study justifies the role of uncertainty in sound policy-making. The authors studied the interaction between policymakers and uncertainty when dealing with environmental problems. They conclude that

providing policymakers, as well as their advisers, with uncertainty information increases the quality of decision-making (Wardekker, van der Sluijs, Janssen, Kloprogge, & Petersen, 2008). Thus, studies about climate change should forgo this debate over the certainty of climate science, and focus solely on producing political will to create a renewable energy economy.

Moore (1994) traces the final type of framing, the use of analogies, in Al Gore's book *Earth in Balance*. Drawing on strategic rhetoric, Gore compares environmental problems to the nuclear threat posed during the Cold War. Second, Gore compares the manifestation of consumerism and subsequent environmental destruction to a lack of a Judeo-Christian ethic. Gore's solution is to model the Marshal Plan, which deals satisfactorily with concerns by conservatives about economic growth. Just like with *An Inconvenient Truth*, Gore successfully establishes an identity for his audience as stewards of the environment. There is much to learn from Gore's role in the environmental movement, especially considering the great success of his book and documentary. It is interesting that no one has studied his public speeches on environmental issues as a Senator, Vice President, or public advocate. However, there are limitations, outlined previously, from drawing too much from Gore's work on climate change since he dedicated so much of his life to one single issue.

This section demonstrated that there are numerous studies conducted by communication studies and public opinion scholars about climate change. However, no recent studies exist on climate change discourse and the American presidency. The form of climate change discourse is diverse, although I can say with some confidence that most studies reject the use of apocalyptic rhetoric in favor of an environmental rhetoric that is more engaging for a wider audience. This is very similar to the conclusions made by the authors in the first section of this review of literature.

Despite the growing popularity of climate change discourse and the American presidency, there are several gaps present in the literature.

Gaps in the Literature

Two significant gaps in the literature justify the importance of my research paper to the communication studies discipline. First, the lack of studies on climate change discourse, the American presidency, and the role of the state in solving environmental problems is quite alarming. Second, although there are plenty of studies conducted on the issue of climate change, there is no focus on emissions reductions from a viewpoint of the American presidency.

The first gap in the literature, the lack of research on communication by the president, is most important to my research paper. I chose to study climate change discourse and the American presidency instead of non-state actors, such as nongovernmental organizations or individuals in society, because I believe the nation-state is the most important actor in international affairs. Mearsheimer (2001) argues, "States remain the principal actors in world politics... [And] there is no reason to believe the great powers will behave much differently" (p. 361). If China refused to reduce its own emissions while the U.S. reduced theirs, this action would threaten the economic competitiveness of the U.S. Likewise, China feels like they should have an equal opportunity to industrialize under the same rules as the U.S. Nation-states will continue to act in their own self-interests. The only question is how environmental issues can factor into the national interest.

The president is even more important when dealing with transnational issues like climate change because it requires building an international coalition. According to Nye Jr. (2002), even if the U.S. decided to reduce its greenhouse gas emissions, it would matter very

little if China did not reduce its emissions as well. These types of transnational issues require collective action, and the U.S. cannot succeed in this endeavor alone.

Thus, the style of American statecraft will largely determine whether the U.S. can eventually iron out a climate change accord. Ross (2008), a career diplomat, argues, "Style matters in foreign policy" (p. 6). Brzezinski (2007) attributes America's ascension to the status as the world's only superpower to Clinton's "eloquent rhetorical recognition" of the situation facing the U.S. in the next century (p. 93). Furthermore, Nye Jr. (2004) argues that the ability to convince other countries to adopt policies we advocate for depends on how persuasive our arguments appear. Successful statecraft requires the "co-optive means of agenda-setting, persuasion, and attraction" (Nye Jr., 2011, p. 16). All of this indicates that the words chosen by Obama will have a significant impact on winning any climate change accord. The field of communication studies has done great discussing the issue of framing and climate change, but they have failed to include rhetorical critiques of climate change discourse and the American presidency.

The second issue that needs more attention is discourse on how best to reduce greenhouse gas emissions that cause climate change. Only briefly in the edited volume by Peterson (2004) do any of the authors mention greenhouse gas emissions. Even the studies currently conducted on climate change in the field of communication studies do not focus on emissions reductions, but only on climate change. This research paper, although focusing on climate change as a whole, intends to demonstrate how the president can win over domestic and international support for a climate change accord that reduces greenhouse gas emissions. After all, the only way to successfully combat climate change is to reduce greenhouse gas emissions.

The lack of studies attempting to advance Bitzer's rhetorical situation or utilizing Foss' cluster criticism method is the last noticeable gap in the literature. Peterson (2004) notes this gap as she discusses the shift from traditional public address scholarship focusing on single president speeches to include much more, moving away from traditional interpretations of Bitzer's (1968) rhetorical situation. Although most studies mention elements of the rhetorical situation, no one outside of the Peterson (2004) volume mentions Bitzer's (1968) model. This is troubling because it indicates a shift in focus from institutional action to individual action. It is impossible to discount individual action when dealing with environmental issues, but rhetoricians simply cannot afford to ignore the president's role in climate change accords any longer. Employing Foss' (2009) cluster critique to Obama's speeches on climate change easily fills in the gaps presented because it focuses on understanding the choices made by the speaker through the context of the rhetorical situation. The following chapter expands on this issue as I discuss the methods I deploy in this research paper.

CHAPTER 3

A FRAMEWORK FOR RHETORICAL CRITICISM

The Case Study Method

It is impossible, within the confines of this research paper, to study every speech given by world leaders on climate change. Thus, I employ a case study method, and examine President Obama's most important speeches on climate change. I evaluate Obama's speeches from the time of his election until the Cancún climate change talks in December 2010. Given that world leaders are important in the fight against climate change as well, further explanation of my decision to study the climate change discourse of only Obama is warranted.

I chose to study Obama instead of other world leaders for two reasons. First, Obama campaigned on this issue, making commitments to enact a climate change accord. Some might be interested in studying the climate change discourse of other American presidents, but Obama is the first American president who made the issue of climate change a major priority of his presidency. This distinction is important because even though Clinton signed the Kyoto Protocol, and Bush ignored the climate change issue, their rhetorical choices cannot help us understand how they failed in constituting the identity of an audience necessary to pass an effective climate change accord. Additionally, the rhetorical choices made by Bush are most likely similar to those statements currently made by Republican leaders. Since my study relies on examining the context of Obama's speeches, I will discuss Republican retorts to Obama's climate change discourse.

Other world leaders, such as Tony Blair and Angela Merkel, are important because they took strong stances against climate change as leaders of the United Kingdom and Germany, but the U.S. is at the center of this issue. The choices made by the U.S. are essential to a climate

change accord because the U.S. is one of the largest emitters of greenhouse gases, as well as possessing the international influence required to create an effective climate change accord. As one of the largest emitters of greenhouse gases, second only to China, and one of the few countries not to ratify the Kyoto Protocol, the U.S. is uniquely responsible to help mitigate climate change. Second, as discussed in the literature review, there is a noticeable gap in research on climate change discourse and the American presidency. Studying world leaders is important on the issue of climate change because nation-states still act within their own interests. Without utilizing the case study method, I would be unable to examine only a small slice of Obama's speeches.

Considering that Obama only has a limited amount of time in office to accomplish his agenda, I do not want to overlook any of his statements. In the end, "The key... to all modes of inquiry... is choosing a strategy for information loss that yields substantially interesting and theoretically useful generalizations while reducing the amount of information analyzed and reported by the investigator" (Weber, 1990, p. 41). Thus, the case study method allows the rhetorical critic to draw productive conclusions by providing them with ample evidence from a larger sample. I discovered *In Obama's Words*, a database containing all of Obama's speeches on climate change compiled by the Washington Post, which allowed me to employ the case study method effectively.

Obama delivered forty speeches or remarks on energy and the environment from the time of his election until the Cancún climate change talks in December 2010. Of those forty speeches, 21 referred directly to climate change. His final public statement on climate change during this time occurred in June 2010, nearly six months before the failed climate change talks in Cancún. Obama delivered three major addresses specifically on climate change. The first speech

happened in November 2008, delivered to his supporters shortly after his election but before his Inaguration in January 2009. Obama delivered the next speech in September 2009 to a meeting of the United Nations General Assembly. The last speech was his official remarks at the 2009 climate change talks in Copenhagen. The remaining eighteen speeches referred to climate change, but were not the sole focus of his speech. However, in these speeches, Obama justifies climate change policies in both environmental and economic terms. These speeches are incredibly important to study because of the prominence he placed on this issue during the campaign. The reason he makes these decisions should appeal to rhetorical critics. To study these artifacts, I apply a combination of Bitzer (1968) and Vatz's (1973) model of the rhetorical situation with Burke (1973) and Foss' (2009) cluster analysis approach.

Theoretical Perspective

Bitzer defines the rhetorical situation as a "complex of persons, events, objects, and relations presenting an actual or potential exigence which can be completely or partially removed if discourse, introduced into the situation, can so constrain human decision or action as to bring about the significant modification of the exigence" (p. 6). I chose the rhetorical situation model because it helps explain the rhetorical motives a speaker has when making their language choices. For example, if the economy is in decline and Obama is speaking to a broad audience, it is likely that he will couch his policy in terms of helping the economy. Likewise, a president speaking to a group of environmentalists might tailor their speech to their audience by talking about the necessity of protecting the environment. Thus, the rhetorical situation in which a rhetor finds himself or herself plays a large role in dictating the language choices he or she makes. Since I am most interested in understanding why Obama chose specific words and phrases in his speeches in

addition to how these choices function to create a particular political reality, models designed to comment on those choices from a specific viewpoint (e.g. feminist criticism) are less applicable.

The rhetorical situation.

The three main components of the rhetorical situation are exigencies, audiences, and constraints. An exigence is an "imperfection marked by urgency," or in other words, any situation that demands action because it is causing problems (Bitzer, 1968, p. 6). However, an exigence is only rhetorical when discourse helps provide a solution to the problem (Bitzer, 1968). For example, climate change is a real threat facing the international community. Since the situation requires Obama to insert discourse and persuade foreign leaders to sign a climate change accord, it represents an exigent situation.

The second aspect is a rhetorical audience, which Bitzer (1968) defines as, "those persons who are capable of being influenced by discourse and of being mediators of change" (p. 8). The important part of the rhetorical audience is that it must be able to create the change desired by the speaker. For example, a president addressing Congress on ways to deal with the climate change issue represents an audience that can enact the change sought by the speaker.

Finally, every exigence also contains a set of constraints, defined as, "persons, events, objects, and relations which are parts of the situation because they have the power to constrain decision and action needed to modify the exigence" (Bitzer, 1968, p. 8). Obstacles will always exist for a speaker to overcome if they wish to achieve the objectives they seek, and thus they might face numerous constraints. For example, uncertainty in climate change science is a constraint any speaker seeking a solution to the problem must face. Although Bitzer outlines three main aspects of the rhetorical situation, he also establishes several general features.

After conceptualizing his theory of the rhetorical situation, Bitzer (1968) outlines five "general characteristics or features" of the rhetorical situation (p. 9). Bitzer considers these separate because, whereas the components are what must be present to create a rhetorical situation, the features that follow are events that might occur because of the rhetorical situation. The first feature is that the situation demands the creation of rhetoric, not the other way around. The way in which a rhetor perceives a situation determines how they will respond to the situation. Second, the rhetorical situation does not invite just any response from a potential speaker, but requires a fitting response, much like Abraham Lincoln's Gettysburg Address. Third, since the situation is what demands that someone speaks, the situation itself also prescribes a specific type of response. The only real question is whether the speaker responds in the correct fashion. Fourth, Bitzer grounds the rhetorical situation in reality. The speaker and the critic should be able to verify its existence through direct observations. This distinguishes the rhetorical situation from fictitious events. Fifth, Bitzer argues that rhetorical situations are "simple or complex, and more or less organized" (p. 11). For example, although FDR's address to the nation following the declaration of war on Japan was rather simple, any political campaign is still inherently complex. Situations are either highly structured or loosely structured, and this relative structure affects the complexity or disconnectedness of the situation. Finally, rhetorical situations mature, decay, or persist indefinitely. Bitzer's model has been groundbreaking, but not without his critics. The most well-known critique and revision to Bitzer's model has been that of Richard Vatz (1973), which I explore below.

Vatz's (1973) critique of Bitzer's (1968) rhetorical situation centers on the constitutive power of rhetoric. Bitzer argues that speakers, based on the situation they find themselves within, are compelled to speak. He claims that a specific situation such as the Battle of Gettysburg

creates a predetermined, necessary response. Thus, "reality" shapes the situation. On the other hand, Vatz argues that an individual speaker has agency to decide how they should respond to a situation because it is impossible to ignore the perceptions held by the individual speaker. He concludes that rhetoric causes situations to develop, not the other way around. This also provides agency for the individual audience member because in Bitzer's world, the situation shapes the "reality" of the audience members, instead of constructing their own responses to the situation based on the choices of the rhetor. A "realist" interpretation of rhetoric like Bitzer's assumes there are stable needs and desires held by the audience that are observable. Language, according to Vatz, creates reality, and does not represent an objective world, empowering individuals to decide how they should respond to specific discourses. The debate occurring here centers on the individual agency possessed by the speaker.

Vatz's (1973) critique holds merit within the communication studies discipline, as many scholars believe rhetoric is constitutive of reality. A combination of these two theories, drawing on the pre-existing identifications, needs, and values of the audience and the constitutive nature of rhetoric provide a useful theoretical perspective for this study (Bitzer, 1968; Vatz 1973).

Bitzer's (1968) view accepts that there are inherent constraints placed on a speaker by the surrounding context. This allows for an investigation beyond just the identity of the speaker. Even though Bitzer and Vatz agree that agency still resides within the individual speaker, they differ in how they conceive the nature of this agency. Bitzer views the rhetor as a speaker-analyst, with the ability to assess the rhetorical situation and respond accordingly. Vatz (1973) believes that the words chosen by the speaker shape the rhetorical situation, not the other way around. The main difference between the two models rests on the constitutive effect of rhetoric. The

rhetorical situation, with its focus on the extrinsic context of events that inform a rhetor's decision to speak, is strengthened when combined with cluster criticism.

Cluster criticism.

I analyze Obama's speeches on climate change using cluster criticism in conjunction with the model of the rhetorical situation. I analyze the rhetorical situation for evidence of an exigence, a rhetorical audience, and constraints. After I identify these three elements of the rhetorical situation, I examine the text of Obama's speeches using cluster criticism to see how he responds to the rhetorical situation.

Cluster criticism "offers an objective way of determining relationships between a speaker's main concerns, as well as a new perspective to rhetorical critics who desire to discover more about the motives and characters of speakers" (Berthold, 1976, p. 302). Cluster analysis focuses on the symbolic motives put in play by interrelationships between certain key sets of terms. Cluster criticism, in this way, gives Obama a rhetorical persona as a result. This method fits nicely with this study because the goal is to identify and understand the ideology created by the words choices of Obama. Further, Burke (1973) explains, "There is no need to supply motives. The interrelationship themselves are his motives. For they are his situation; and situation is but another word for motives" (p. 20). Thus, cluster criticism results in "insights into the meanings of key terms and thus a worldview that may not be known to the speaker" (Foss, 2009, p. 66). This is important because a speaker chooses her words, rightfully or wrongfully, based on the situation that developed. Understanding why Obama chose to mention the phrase "climate change" is important to uncovering the ideology and rhetorical emphasis created by his rhetorical choices. This method also allows for demystifying the function of Obama's rhetoric in regards to the structure he employs, including form and content. As noted in the literature review, both the form and content are important to determining the effectiveness and intentions of the speaker. Identifying frames within rhetoric is not difficult, but understanding why a speaker deployed these frames is difficult. This also allows an exploration into the relation and dynamic of the word choices he makes in different situations.

According to Foss (2009), developing the method of cluster criticism entails three steps. Identifying key terms is the first step. Although most people choose key terms based on the number of times they appear in the artifact (frequency), rhetorical critics can also choose terms based on their intensity. Thus, the intensity of the term is determined "if it is central to the argument being made, represents an ultimate commitment, or conveys great depth of feeling" (p. 66). A rhetorician can study any term if removing it significantly alters the message. For example, the climate change phrase might only appear in the text of Obama's speeches one time, but if the absence of the term changes the meaning of the message, it is considered a useful term to analyze.

Second, the rhetorical critic must chart the clusters around the key terms they have selected to analyze. Although this is not an exact science, words usually cluster around the key term in several ways. The word may appear in close proximity to the key term, or joined with the key term by a conjunction (Foss, 2009).

The final step in cluster criticism is to discover an explanation for the artifact. At this stage, the rhetorical critic "attempts to find patterns in the associations or linkages discovered in the charting of the clusters as a way of making visible the worldview constructed by the rhetor" (Foss, 2009, p. 67). The goal is to determine if the linkages between the key term and the words in the cluster influence the meaning of the key term. I will also offer a revision to this final step that is still in line with Foss' overall method. Lynch (2006) explains that rhetorical critics might look for an "agon," or an oppositional term or terms, within the cluster analysis. This allows

"one to count the appearance of key terms while also critically describing relationships between them" (Lynch, 2006, para. 6). This unique addition helps the critic understand the choices made by the rhetor because it justifies a comparison between more terms.

There are unique benefits gained when combining Bitzer (1968) and Vatz's (1973) model of the rhetorical situation with Foss' (2009) cluster critique method. In the literature review, I explained that the absence of this model and method is noticeable in the communication studies discipline. This study adds a unique approach to studying climate change discourse and the American presidency by making this combination. The case study approach I have described allows for an in-depth examination of the contextual situation surrounding the speaker, while also allowing for a close textual criticism of Obama's words. This dynamic opens space for an investigation into why Obama chose these specific words by taking into account the immediate context surrounding the climate change phrase, while also evaluating the surrounding extrinsic context as well. Now that I have explained my methodological approach, I will move to the research questions guiding my study.

Research Questions

The lack of literature on climate change discourse and the American presidency is the main driver of this study from the perspective of advancing the current understanding of this issue in the communication studies discipline. From a societal perspective, it is necessary for the international community to pass an effective climate change accord to prevent environmental and economic disasters. Failure for the U.S. to transition to a renewable energy economy will also devastate the ability for the U.S. to lead in the 21st century. The first research question I propose is model driven. In what ways does the conceptual model of the rhetorical situation provide insight on how Obama's climate change discourse enables and constrains environmental action?

The second research question I propose is operational. By utilizing the method of cluster criticism, how can rhetorical critics better understand the choices made by presidents on important transnational issues such as climate change? Finally, how do the different elements of the rhetorical situation enable and constrain Obama's climate change discourse? Now that I have established my research questions for this study, I briefly preview the remaining chapters in this study.

Preview of Remaining Chapters

I lay out the rest of this study in the following way. First, I examine the context of the situation in which Obama chose to deliver his speeches. Specifically, I apply Bitzer (1968) and Vatz's (1973) model of the rhetorical situation, demonstrating why Obama's decision to speak fits this model. In the section that follows, I perform a close textual reading utilizing Foss' (2009) cluster critique method. I end this research paper by offering several implications and limitations of my study. Now that I have proposed these research questions, I move to Chapter 4, which presents my analysis of Obama's speeches on climate change.

CHAPTER 4

ANALYSIS AND CONCLUSIONS

In this chapter, I examine Obama's invocation of the climate change phrase in 21 speeches from the time of his election in 2008 until his conspicuous absence at the 2010 climate change talks in Cancún, Mexico. The lack of available speeches following the failed climate change talks is the first justification for analyzing this slice of speeches. The amount of available speeches that mention the climate change phrase substantially decreased during this time.

Boykoff (2012) notes that Obama mentioned the climate change phrase zero times in his 2011

State of the Union Address. He used the phrase only once in his 2012 State of the Union Address, perhaps to highlight the increasingly partisan politics of Washington D.C. The rhetoric of the Obama administration also shifted in the last two years of his first term in office. A Brown University study cited by Boykoff demonstrates this shift. According to the study, Obama has started to replace the climate change phrase with "clean energy" and "energy independence."

The second reason I chose this slice of speeches is that it represented perhaps the best chance the U.S. has had at passing domestic legislation designed to fight climate change that would turn into effective international action. Following the 2008 Presidential and Congressional election in the U.S., Obama's Democratic Party controlled the White House and both chambers of Congress for the first time since 1994 (Johnson, 2008). With an overwhelming majority of seats in the House of Representatives, the Democratic Party also constructed a coalition of Democrats, Independents, and Republican crossovers to create a sixty-vote, filibuster proof majority in the Senate. Despite this majority, the U.S. still failed to pass effective domestic legislation to combat climate change and Obama was unable to build a coalition of international partners to construct an efficacious climate change accord.

In this research paper, I attempt to solve the riddle of why Obama's rhetoric was ineffective in developing an effective climate change accord. This section begins with an indepth discussion of the exigencies, rhetorical audiences, and constraints present within the rhetorical situation Obama faces as they apply to all 21 of his speeches on climate change. Although there are minor changes that I will note between the different speeches, the rhetorical situation faced by Obama remains largely the same. I also perform a close textual analysis of his speeches using the cluster analysis method discussed in the previous chapter.

Exigencies

As noted in the previous chapter, an exigence is "an imperfection marked by urgency" (Bitzer, 1968, p. 6). In the case of climate change discourse and the American presidency, the main exigency faced by Obama is the threat posed by climate change to the environment and international economy. In the introductory chapter, I discussed the potential economic and environmental threats posed by climate change to the U.S. and the rest of the world. However, the urgency of the situation is an important part of the definition of an exigence. The urgency of the climate change issue, along with the devastating environmental and economic impacts it may have, is the first exigency I explore.

Climate change as an imperfect and urgent situation.

Scientists, journalists, and world leaders have demanded action on climate change because they argue time is running out to stop the irreversible nature of a changing climate. A study conducted by Wageningen University, University of Wisconsin at Superior, and Scripps Institution of Oceanography describes climate change "tipping points" as, "critical thresholds that could trigger change from one state to another — changes that tend to be abrupt, not gradual" (Walsh, 2009, para. 3). Thus, a double-edged sword appears when discussing the issue of climate

change. Convincing the public to take action against climate change is difficult because the consequences seem uncertain and distant. It is important to elaborate on this point because if Obama can explain that climate change is actually an urgent threat, as opposed to something distant, then he can more easily convince the world that they must act to stop climate change. At the same time, action is required before climate change reaches its tipping points. This devastating combination is one of the main barriers to spurring effective action against climate change.

The ability to identify when humans have reached a tipping point is called "squealing," which occurs when there is a "sudden variance between two distinct states within one system" (Walsh, 2009, para. 4). The researchers argue that the tipping point for climate change will occur when these variations, in this instance between hot and cold temperatures, are the norm and not just aberrations. Faced with a situation where climate change is real, and its tipping point fast approaching, society's inability to communicate the risk of climate change is preventing any effective action. Knowing what a tipping point means is important to this study, but knowing when the tipping point occurs is an important question that still needs an answer.

In March 2012, climate scientists from around the world met in London for the National Climate Change Adaptation Research Facility's conference on climate change tipping points. The participants concluded that, "The world is close to reaching tipping points that will make it irreversibly hotter, making this decade critical in efforts to contain global warming" (Chestney, 2012). Although there is disagreement on exact numbers, the conference concluded that left unabated, climate change will lead to a rise in global temperatures of six degrees Celsius by the end of this century. William Steffen, director of the Australian National University climate change institutes describes this decade as "critical," if the world hopes to stop climate change

from reaching several new tipping points. Some climate scientists worry that the world has far surpassed its ability to reverse the melting of the polar ice caps, but there are other major tipping points scientists are confident world leaders can prevent. For example, the Amazon Rainforest is reaching the point where it will begin releasing more carbon dioxide than it stores. Another concern for climate scientists is the unknown effect the melting of permafrost in areas such as Siberia.

Although not currently realized, the effects of these tipping points could occur at any time, adding to the concern of the climate scientists present at the conference. Renewable sources of energy only make up 1% of global energy output. If the international community wants to decrease greenhouse gas emissions, focusing on shutting down coal-fired power plants represents perhaps the only solution to this crisis (Chestney, 2012). The threats from climate change are urgent and well documented by the scientific community. However, the real question is whether the scientific community can help communicate these risks more effectively. The science behind the tipping points of climate change is the best hope to achieve this goal.

There is some hope that the scientific community can predict these tipping points, increasing the likelihood that society might act to prevent them from occurring. Lenton (2011) argues that these tipping points represent "high-impact high-probability events," in which predictive models can help stymie the impacts of climate change (para. 1). Even with these new predictive models, the study questions whether there is enough time to prevent these tipping points. Lenton concludes that, at the very least, an early warning system can help society adapt to and mitigate the long-term effects of climate change. Society is on the verge of reaching the tipping points that make climate change irreversible, while simultaneously closing in on the models that might help predict when these tipping points might occur.

Climate change is a real threat facing the international community, with support from at least 97% of climate scientists currently publishing in the field. It is also an urgent threat, with the world quickly approaching several tipping points that will make climate change irreversible. This is the first exigence that Obama faces within the current rhetorical situation, and the second intertwined exigence, a massive economic recession, is no easier to deal with. As noted in the introduction, climate change might have a significant impact on long-term economic growth. However, the immediate impacts of droughts and intensifying natural disasters have also negatively influenced economic growth. Yet despite the interconnected nature of climate change and economic growth, the economic recession has made dealing with this problem even more difficult.

Economic recession as an imperfect and urgent situation.

The "Great Recession" that began in December 2007 technically ended in June 2009, and a long-term recovery began (Krugman, 2012). Despite this technical recovery, there are still widespread structural problems in the U.S. economy. In December 2011, thirteen million Americans were unemployed. Even though there was a technical recovery in terms of a return to growth in America's GDP, more people are out of work today than in December 2007. According to a June 2011 Democracy Corps poll of likely voters, 40% of Americans said they were negatively impacted by job losses, reduced hours, wage cuts, or loss of benefits. A March 2012 Rasmussen Reports poll showed that 82% of likely voters view the economy as the most important issue, a consistent trend since the collapse of Lehman Brothers in August 2007 ("Importance of Issues").

Obama recognized the importance of staving off the economic recession in his inaugural address in 2009. He stated, "Everywhere we look, there is work to be done. The state of the

economy calls for action, bold and swift, and we will act -- not only to create new jobs but also to lay a new foundation for growth. All this we can do. And all this we will do" ("Obama promises"). The President acted swiftly in the face of this exigence, winning approval of a \$787 billion stimulus package, containing tax breaks and money for infrastructure projects, less than one month after he took office (Herszenhorn & Hulse, 2009). Despite these bold steps, the economy remained in a "jobless recovery."

It is clear that the American economy remained in a relatively depressed state between November 2008 and December 2010, but it is important to establish the urgency required in responding to this crisis. At the beginning of 2010, with the recovery still shaky, economists placed the odds of a double dip recession, defined as a quick return to negative growth following a short burst of growth, at fifty-fifty. By the middle of 2010, economists reduced the risk of a double dip recession to just 25% (Censky, 2010). However, it remains painstakingly clear that even though the economy avoided a double dip recession, the economic recovery is not yet complete. The "Great Recession" of December 2007-June 2009 represented a significant imperfection of the American economy, and remained an urgent problem well after it technically ceased as an official recession. Just like with climate change, the tipping point of a second recession is hard to predict, and Obama navigated this exigence with impeccable care to prevent a double dip recession. Failure to deal with the "Great Recession" was the top priority of the Obama administration. This study examines the extent to which Obama appropriately responded to the double threat of climate change and economic recession he faced in his first two years in office. This section explored the two main exigencies that Obama faced as he attempted to construct an international climate change accord. The next section details the political, economic, and international constraints placed on Obama.

Constraints

Bitzer (1968) defines constraints as, "persons, events, objects, and relations which are parts of the situation because they have the power to constrain decision and action needed to modify the exigence" (p. 8). In Obama's rhetorical situation, I identify several political, economic, and international constraints that place significant limitations on his ability to pass domestic cap-and-trade legislation and construct an international climate change accord. The most important constraint, I contend, is the domestic political pressure faced by Obama.

Political conditions as constraints on decision-making and action.

On November 4, 2008, citizens of the U.S. elected Obama their President. Obama defeated Republican Senator John McCain by a wide margin. The Democratic Party took back control of the House of Representatives for the first time since 1994, and constructed a filibuster-proof majority in the Senate (Johnson, 2008). As noted in the introduction, Obama committed himself to reduce greenhouse gas emissions in the U.S. and to enact an efficacious international climate change accord. I will discuss two political constraints to reaching this goal, beginning with opposition from the Republican Party and moderate Democrats, and ending with the role public opinion plays in presidential politics.

The Republican Party and moderate Democrats as constraints. By passing cap-and-trade legislation in June 2009, the House of Representatives took a bold step in addressing climate change. The vote count demonstrated just how decisive of an issue climate change legislation is in the U.S. The cap-and-trade bill passed with just one vote to spare, and only eight Republicans voted for the law (Shaw, 2009). Despite the close result, this period represented the best opportunity during Obama's presidency to pass domestic climate change legislation because most polls indicated that the Republicans would retake the House of Representatives in the

midterm elections (Murray, 2010). On July 26, 2010, Politifact deemed that progress stalled on cap-and-trade legislation when Democratic leaders in the Senate announced that they could not conjure up the necessary sixty votes to pass the legislation (Holan & Pleva, 2010). The case of cap-and-trade legislation demonstrates a few constraints. A vast majority of Republicans opposed cap-and-trade legislation (Murray, 2010). Even the Democratic Party, with its "supermajority" of sixty votes in the Senate was unable to muster enough support from its own caucus to pass the legislation.

During this time, much of the Republican Party remained skeptical of the science behind climate change, representing another constraint placed on the Obama administration. The inherent doubt that exists within the scientific method helped fuel this skepticism. Scientists are trained to doubt their scientific findings, which is why so few scientific theories exist (Friedman & Mandelbaum, 2011). Yet this skepticism has since dominated the ideology of the Republican Party. Oklahoma Senator Jim Inhofe, one of the Senate's most passionate supporters of climate skepticism, deemed 2009 "the year of the skeptic" (Reis, 2010). Nearly every Tea Party candidate that ran for the Senate in 2010 dismissed any connection between human action and climate change. Following the midterm elections in 2010, a majority of the Republican caucus in the House and Senate denied the science of climate change (Benson, 2011). With the Republicans in control of the House, and the Democrats down to 52 seats in the Senate, the likelihood that the U.S. would pass effective climate change legislation after 2010 was slim. The climate change skeptics in the Republican and Democratic parties represent the greatest political constraint facing Obama as he attempted to pass climate change legislation. Public opinion represents the second constraint Obama faced while attempting to pass domestic climate change legislation and construct an international climate change accord.

Public opinion as a constraint. Political science scholarship shows that public opinion can have a substantial impact on public policy (Burnstein, 2011). This section explores how individuals view the issue of climate change, while also rating its relative importance with other issues. Public opinion data from this period is not encouraging for future action on climate change. Newport (2010) concludes, "Gallup's annual update on Americans' attitudes toward the environment shows a public that over the last two years has become less worried about the threat of global warming, less convinced that its effects are already happening, and more likely to believe that scientists themselves are uncertain about its occurrence" (p. 1). From 1997 to 2008, there was an increase every year in the number of Americans who believed that the problems of climate change were already occurring. However, in 2010, this number decreased to the lowest number since 1997. The dwindling nature of this support represents another constraint on solving the issue of climate change.

The potential threat posed by climate change is another important indicator of the public's attitudes on climate change. A similar trend exists in this data set. From 2008 to 2010, the number of Americans who felt that climate change posed a serious threat to their way of life decreased. Likewise, those who felt that it did not pose a serious threat increased (Newport, 2010). From these two questions, it is clear that there are a growing number of people in the U.S. who feel that climate change is either nonexistent, or poses no threat to their way of life. Climate skepticism represents another major constraint on action to stop climate change.

The majority of also Americans do not believe in the scientific consensus on climate change. In 2008, most Americans believed humans were responsible for climate change. When the question was asked again in 2010, the numbers showed an almost even split (Newport, 2010). This demonstrates the inability of scientists to communicate climate change effectively, and the

next point furthers this line of argumentation. In 2008, the perception that scientists believed climate change was occurring climbed to 65%. Two years later, this number dipped to 52% (Newport, 2010). This is shocking given the number of scientists that actually believe climate change is anthropogenic. Polling data shows that every year Gallup asked the question from 1998 until 2008, more and more Americans believed that climate change was occurring. The current trend in public opinion demonstrates that Americans are increasingly skeptical of the science behind climate change. This is a constraint because if people do not believe climate change is real then they have no reason to support action to stop it. When juxtaposed with the economic crisis facing the U.S., the relative importance Americans place on climate change lessens further.

The number of Americans who prioritize environmental protections over economic growth is usually higher than those who prioritize economic growth. However, these numbers flip during recessions. In early 2008, more Americans were still concerned with the environment than economic growth. By late 2009, only 42% of Americans favored protecting the environment if it would trade off with economic growth. The gap between those who favored economic growth over environmental protections was the largest difference in the history of Gallup asking the question. This alone should demonstrate the severity the economic recession had on people's attitudes on the environment (Jacobe, 2012).

A recent study suggests that the economic recession also fueled the skepticism of climate change. Professor Lyle Scruggs, in an interview with the *UConn Today*, stated that, "the economy impacts the way people prioritize the problem of climate change l" (Buckley, 2012). These two surveys (Newport, 2010; Jacobe, 2012) show the importance the economic recession played on the attitudes individuals hold about the environment. Obama faced the economic

constraints of recession, but in turn, that same constraint influenced people's attitudes on the environment. This made the rhetorical situation Obama faced from 2009-2010 even more daunting because of the influence public opinion holds over presidential decision making.

These two political constraints faced by Obama presented his greatest challenges in the climate change debate. Without the support of Congress and the American people, climate change legislation is dead on arrival. Although these political constraints are Obama's greatest hurdles when trying to fight climate change, we cannot forget the constraints placed on Obama by international actors.

International actors as constraints on action.

It is impossible for any one country to stop climate change. Climate change is a transnational issue that requires collective action. The international constraints expressed at the Copenhagen climate change conference in December 2009 were numerous. At the conclusion of the conference, the international community reached a "weak agreement" that committed them to prevent global temperatures from rising more than 2 degrees Celsius. Most developing countries in Africa and Asia wanted a commitment to only 1.5 degrees Celsius because even the slightest rise in sea levels or extended changes in climate could decimate their livelihoods. China wanted to maintain language from previous agreements that placed more of the burden on countries like the U.S. Negotiators blamed the coalition headed by China for stalling a substantive deal (Vidal, Stratton, and Goldenberg, 2009). All of these objections are constraints placed on Obama by international actors.

These issues still exist today. Most world leaders admitted privately that they would not negotiate a new agreement until at least 2016, with implementation not occurring until 2020 (Harvey, 2011). Although the likelihood for an international climate change accord is low, many

experts believe that individual countries, businesses, and people can make a huge difference in preventing an irreversible rise in global temperatures. From all the evidence presented here, it appears the easiest time to pass some form of climate change agreement would have been during the boom times of the mid 2000's. However, the political climate in the U.S. was not conducive to such an agreement during this time.

The constraints faced by the Obama administration were numerous. Within his own country, Obama faced a Republican Party that did not believe in the science of climate change and an American public that agreed with this position. In the international arena, Obama faced two sets of constraints: countries that are developing rapidly that would prefer to protect their own economic growth, and countries that are most vulnerable to the threats of climate change that are requesting aid Western countries are unwilling to give. Obama faced a very difficult rhetorical situation, and understanding how he dealt with the situation rhetorically is an important part of this combined method.

Cluster Criticism

This section examines Obama's 21 speeches that use the climate change phrase from the time of his election to his conspicuous absence at the Cancún climate change talks in December 2010. Through a combination of Bitzer (1968) and Vatz's (1973) model of the rhetorical situation and Burke (1973) and Foss' (2009) cluster criticism, I investigate how Obama responded to the rhetorical situation he faced. An effective response to any rhetorical situation, as detailed by Bitzer, includes recognition of the exigencies, constraints, and rhetorical audience faced by the rhetor. I deploy this method to derive new insights about Obama's rhetorical choices, while also identifying the flaws in the choices he made. Within my close textual reading, I will look for evidence of Obama responding to the exigencies and constraints mentioned earlier in this study. I

will also examine Bitzer's notion of the rhetorical audience and determine whether Obama is speaking to an audience that can create an efficacious change. It is important to remember that the rhetorical situation I defined is only one specific reading. Obama might have read the situation differently, which is why I will also explain Obama's choices through his own reading of the situation.

The intensity of climate change in Obama's speeches.

The first step of cluster criticism is to identity key terms (Foss, 2009). In this research paper, I have chosen to evaluate Obama's use of the climate change phrase in his speeches on the environment. Although some cluster analyses utilize a counting method to determine frequency, I focus first on the intensity of the climate change phrase, and then evaluate its frequency. I made this decision because climate change is an important issue of the time, but Obama does not mention the phrase very often in his speeches. However, Foss defines a term as having great intensity if the removal of the term significantly alters the message. In this instance, I think the removal of the climate change phrase from Obama's speeches would alter his speeches significantly. As noted previously, Obama made the fight against climate change one of his top priorities. If Obama removed the climate change phrase from his speeches, instead focusing solely on the benefits of transitioning to a renewable energy economy, it would represent a shift from the rhetoric of his campaign. This shift could be interpreted by environmentalists as abandoning the issue entirely. Yet even though environmentalists might dislike the removal of this phrase, I will argue that removing the phrase would have a positive influence on his climate change discourse. I will discuss this more throughout the analysis, but whether it helps or hurts his efforts to fight climate change, removing the term certainly alters the message because it refocuses the speech almost entirely on the economy. The second step of cluster analysis

identified by Foss (2009) is to chart the clusters around the key terms. Below, I break down the clusters into four categories: climate change exigence clusters, economic exigence clusters, public opinion constraint clusters, and international constraint clusters.

Climate change exigence clusters.

I broke down Obama's narrative of the exigent threat of climate change into four clusters, all containing different sub-terms, which I identify as key terms that cluster around the climate change phrase. The first cluster focuses on the urgency of climate change. The second cluster discusses the use of scientific data. The third cluster examines Obama's response to the negative implications of letting climate change go unchecked. The final cluster looks at Obama's attempt to tie the fight against climate change with the economic benefits of reducing greenhouse gas emissions.

The urgency of climate change.

Since Obama has stated his belief in the science and negative consequences of climate change, there is no shortage of references to climate change as an exigent threat in his 21 speeches. In this section, I identify "urgency" as a sub-term that is clustered with the climate change phrase. Surprisingly, Obama only mentioned the urgency of climate change in three speeches, all of which occurred before the recession deepened in 2010. This represents a major shift in Obama's interpretation of the political situation and the priorities of the citizens he governs. In his very first speech on climate change following his election, he said, "Few challenges facing America — and the world — are more urgent than combating climate change" (Obama, 2008b). Obama delivered this speech to a group of American governors and foreign bureaucrats committed to fighting climate change. The conference occurred before his

Inaguration as President. This reference clearly situates climate change as a centerpiece of his presidency, second only to rebuilding the economy of the U.S.

On January 26, 2009, in the East Room of the White House, Obama discussed the urgency of climate change in two ways. First, Obama referenced climate change as an urgent threat facing "our national and economic security [that] are compounded by the long-term threat of climate change" (Obama, 2009a). Second, Obama mentioned that "now is the time to make the tough choices" necessary to stop climate change (Obama, 2009a). Obama identifies climate change as an urgent threat facing the U.S. on three fronts: economic, national security, and environmental. By tying the urgency of climate change to the economy and national security, he attempts to broaden the base of supporters who might find it necessary to fight climate change. Obama's focus on national security resonates with his predecessor's rhetoric on the environment. Wolfe (2007) identified Bush's attempts to shift the rhetoric of his Healthy Forest Initiatives from an environmental threat to one focused on national security. Although Obama attempts to focus on climate change and the environment in this cluster, it is also clear that he attempts to shift the debate to a broader range of issues facing the U.S.

Obama next mentioned the urgent threat of climate change on September 22, 2009 at the headquarters of the United Nations. Obama (2009g) stated, "That so many of us are here today is a recognition that the threat from climate change is serious, it is urgent and it is growing". He discusses the urgency of climate change most closely within the context of preventing disastrous effects from occurring during future generations. He ended his speech by stating, "Mr. Secretary, as we meet here today, the good news that, after too many years of inaction and denial, there's finally widespread recognition of the urgency of the challenge before us". The issue here, of course, deals with the problem of using far-off negative impacts as a reason to take action on

current problems (O'Neill & Nicholson-Cole, 2009). Coupled with public opinion data that suggests the public does not care about the issue of climate change, Obama's attempts to tie the urgency of climate change with helping future generations seem misplaced (Newport, 2010). Obama does discuss the "growing and grave danger of climate change" in his speech at the Copenhagen talks, but this is the last time he frames climate change as an urgent threat facing the world (Obama, 2009j). I hope that the lack of action taken to stop climate change shifts the future rhetoric of world leaders from discussing the urgency of climate change towards one focused on the economic benefits of transitioning to a renewable energy economy. This would confirm the findings of previous studies conducted by communication studies scholars (Johnson, 2009; Foust & Murphy, 2009; O'Neill & Nicholson-Cole, 2009). Urgency is only one part of Obama's climate change discourse, while winning over climate change skeptics represents his greatest challenge.

The science of climate change.

The scientific evidence supporting climate change overwhelmingly suggests that climate change is anthropogenic (Gore, 2006). However, the American public, along with the Republican Party, are highly skeptical of the scientific foundations of climate change (Newport, 2010). In this section, I look for the sub-term "science" clustered with the climate change phrase. In his first speech on climate change after his election, Obama remarked, "The science is beyond dispute and the facts are clear" (Obama, 2008b). Yet despite the overwhelming evidence, he fails to cite any evidence in this speech, or any other. He does cluster the reference to the science of climate change with sea levels rising, and other negative implications of climate change (Obama, 2008b). He attacks the Republican Party by saying that "Rigid ideology has overruled sound science" (Obama, 2009a). In his speech to the United Nations in September 2009, he stated that,

"there's finally widespread recognition of the urgency of the challenge before us," even though the American people and the Republican Party clearly disagreed with him (Obama, 2009g).

In his speech at the United Nations climate change conference in Copenhagen, Obama again missed out an opportunity to discuss the scientific foundation of climate change. He addressed the issue simply by saying, "This is not fiction, it is science. Unchecked, climate change will pose unacceptable risks to our security, our economies, and our planet. This much we know" (Obama, 2009j). This is the final time that he mentions the science of climate change without couching it in other terms. During the 2010 State of the Union address, Obama said,

And I know that there are those who disagree with the overwhelming scientific evidence on climate change. But even if you doubt the evidence, providing incentives for energy efficiency and clean energy are the right thing to do for our future – because the nation that leads the clean energy economy will be the nation that leads the global economy. And America must be that nation. (Obama, 2010a)

His last reference to the science of climate change, in February 2010, took a similar approach. He argued, "So even if you don't believe in the severity of climate change, as I do, you still should want to pursue this agenda," meaning that it is acceptable to doubt the science of climate change, so far as you still support clean energy (Obama, 2010b). This represents a radical shift from the tone at the beginning of this period, where Obama steadfastly said that the science behind climate change is real.

It is clear that Obama is responding to the political realities of dealing with the American public and a Congress that doubts the science of climate change. However, couching his claim in "even if" terms is a game changing phrase. It grants legitimacy to the argument that there is still a legitimate debate on the science of climate change. For those already opposed or undecided, it

gives them an easy out because Obama deems skepticism acceptable. If Obama was going to give up on the argument that the science behind climate change is sound, he should never have mentioned the climate change phrase in the first place. Instead, he should have focused entirely on the benefits of transitioning to a renewable energy economy.

I argue that this is one area where previous studies justify that Obama should focus on the benefits of transitioning to a renewable energy economy. Focusing on the science of climate change shifts the debate to an issue that most Americans do not agree with Obama on. A better strategy may have been to shift the debate back to something the American public does care about, which in this case is the economy. To take this argument to the next level, trying to win the debate that climate change science is factually accurate ignores the inherent skepticism in the scientific method that fuels debate as opposed to dogmatism (Wardekker, van der Sluijs, Janssen, Kloprogge, & Petersen, 2008). Next, I look to Obama's discussion of the negative implications of failing to act on climate change, which represents the final climate change exigence faced by Obama.

The negative implications of climate change.

Obama makes 12 direct references to the negative implications caused by unchecked climate change, spanning 11 speeches, from before his Inaguration until April 2010. However, Obama repeated many of these references in several different speeches, so not every reference he made was unique. He stated on four occasions that the world must act now to "prevent the worst consequences of climate change" (Obama, 2009d; Obama, 2009e; Obama, 2009f; Obama, 2010c). This cluster appeared mostly in the context of a long list of benefits of transitioning to a renewable energy economy, demonstrating that the focus of Obama was more about shifting the debate to issues that he thinks are more urgent. This is a tactic identified in Bush's rhetoric on the

Healthy Forest Initiatives by Wolfe (2007). By shifting the debate to how stopping climate change might help the economy, Obama strategically shifted to an issue of utmost importance to the American people. Obama also made two nearly identical references in the same fashion, discussing how the U.S. can choose either to "allow climate change to wreck unnatural havoc or we can create jobs [utilizing low-carbon technologies] preventing its worse effects" (Obama, 2009c; Obama, 2009e). These two references represent Obama's attempt to tie climate change with job-creating policies, which I will discuss more in the economic exigence section.

Obama did go into detail early in his time in office discussing the negative implications of climate change. In his first speech, Obama said, "Sea levels are rising. Coastlines are shrinking. We've seen record drought, spreading famine, and storms that are growing stronger with each passing hurricane season" (Obama, 2008b). He echoed these sentiments in his second speech saying, "the long-term threat of climate change, which, if left unchecked, could result in violent conflict, terrible storms, shrinking coastlines, and irreversible catastrophe" (Obama, 2009a). In his speech to the United Nations in September 2009, Obama described climate change as producing, "Rising sea levels [that] threaten every coastline. More powerful storms and floods threaten every continent. More frequent droughts and crop failures breed hunger and conflict in places where hunger and conflict already thrive. On shrinking islands, families are already being forced to flee their homes as climate refugees" (Obama, 2009g). These clusters capture Obama's rhetoric when he was still fighting passionately to pass climate change legislation on the national and international level. However, the language he uses is dry, and lacks specificity. He could have given specific examples of where these problems were occurring; instead, he erred on the side of generalities, very similar to his decision not to talk about the science of climate change. In my estimation, Obama made this decision because he is a political realist. Even though he

believes in the science of climate change and the severity of its effects, by shifting his rhetoric to "clean energy" and "energy independence," he made a political calculation that he should no longer speak about climate change.

As time wore on, Obama spoke more and more in generalities, giving limited time to the severity of the negative implications of climate change. Obama described other factors, beginning with climate change, as placing "a growing strain on our wildlife and our waters and our lands" (Obama, 2010e). In his final reference to the climate change exigence, Obama said, "Our security, our economy, the future of our planet all depend on it" (Obama, 2010f). This is another example of Obama attempting to combine the threats of climate change with other threats. This decision can certainly have a rhetorical effect on the audience. By combining the environmental and economic threats of climate change, he might begin to win over those skeptical of taking action to stop climate change because they are worried about the economic recession. These general references to climate change demonstrate that Obama has moved on from the issue, confirmed by a recent study published in the Washington Post, showing that Obama no longer mentions the climate change phrase (Boykoff, 2012).

Obama's references to climate change as an exigent threat are easily broken down into three categories, including its urgency, the debate over climate science, ending with the negative implications of climate change. It is easy to see that as time went on, Obama talked less about climate change as an exigent threat, and the phrase appeared alongside more references to the economy. As the recession deepened, he gave up on his attempt to win the debate over climate science, telling people it is fine if they deny the science of climate change.

Economic exigence clusters.

Although Obama described climate change as an important priority of his administration, there is no greater exigent threat facing the U.S. than the Great Recession that began in 2007, and continued to deepen even after Obama took office. In his speech to the United Nations in September 2009, Obama said, "We seek sweeping but necessary change in the midst of a global recession, where every nation's most immediate priority is reviving their economy and putting their people back to work" (Obama, 2009g). Due to the recession, Obama faced a difficult task in convincing the American public, Congress, and the international community that the economic benefits of stopping climate change outweighed any potential risks of taking action on climate change. The challenge was even more difficult since political leaders that fight for environmental causes have failed to create an effective framing mechanism for these issues (Lakoff, 2010). The clusters that follow demonstrate that Obama remained deeply concerned about the economy, but also committed to the idea that transitioning to a renewable energy economy would save both the economy and the environment. Survey data shows during times of economic growth individuals value the environment over the economy, indicating that this frame might successfully sway public opinion if deployed at the right time (Newport, 2010).

Outsourcing, new jobs, and a renewable energy economy.

A major issue in the U.S., besides the economic recession, is the steady decline in American manufacturing jobs. According to Obama's argument, jobs from renewable energy are inevitable; the only question is whether the U.S. or other countries create them. For example, Obama stated very early in his Presidency, "We can let the jobs of tomorrow be created abroad, or we can create those jobs right here in America and lay the foundation for our lasting prosperity" (Obama, 2009b). Not only will these news jobs be created in the U.S., they are jobs "that can't be outsourced" (Obama, 2009f; Obama, 2009h). To put this in perspective, Obama

believes that while the U.S. waited to act to create these jobs, others surpassed the U.S. in jobs created from transitioning to renewable energy. "From Spain to China, other nations recognized that the country that leads the clean-energy economy will be the country that leads the 21st century global economy" (Obama, 2010f). The focus on new jobs, specifically ones that cannot be outsourced, is a direct response to the downward trend in American manufacturing coupled with the negative implications caused by the economic recession. This is the type of rhetoric that Wolfe (2007) would say shifted the debate to a salient issue that the American people cared about the most. The focus on new industries is an example of Obama talking directly to the business community in the U.S.

New industries and a renewable energy economy.

One of the major concerns with transitioning to a renewable energy economy is the costs it might place on existing businesses. Obama sought to stymie these fears by talking about the new business opportunities this transition would create. At the headquarters of the United Nations, Obama said, "Across America, entrepreneurs are constructing wind turbines and solar panels and batteries for hybrid cars with the help of loan guarantees and tax credits; projects that are creating new jobs and new industries" (Obama, 2009g). When speaking to the Copenhagen climate change conference he remained convinced that this transition will, "create millions of new jobs, power new industries, keep us competitive, and spark new innovation" (Obama, 2009j). In an attempt to localize these benefits, Obama would discuss how climate change legislation might "ignite new industries, spark new jobs in towns just like Fort Madison" (Obama, 2010f). These new industries will also make the U.S. more competitive, allowing the U.S. "to become the world's leading exporter of renewable energy" (Obama, 2009b; Obama, 2009e). These new industries, according to Obama, will not only create new jobs for today's economy, but also lock

the U.S. into a long-term economy free of carbon-based energy. Obama still had to convince everyone that clean energy was profitable, or his framing of the issue would be unsuccessful during an economic recession.

Profitability and a renewable energy economy.

In the midst of a recession, it was necessary for Obama to convince Americans that a transition to a renewable energy economy would improve America's economy. His focus on government assistance, instead of free markets, is also evident in these clusters. In four different speeches, he varied the terminology in two ways. In the first phrase, which he targeted towards business owners, Obama called the new cap-and-trade legislation passed by the House, "a bill that finally makes clean energy the profitable kind of energy for America's businesses" (Obama, 2009g; Obama, 2010g). He also focuses on this statement in general, perhaps attempting to let individuals know that clean energy is affordable (Obama, 2009f; Obama, 2010a). Either way, Obama realizes that during a recession, it is imperative that he convince people that businesses will make money or that individuals will save money on monthly electric bills.

Even though the benefits from the transition to a renewable energy economy might appear long-term, it is much easier for the American public to connect with this issue than with apocalyptic rhetoric. As Johnson (2009) notes, Obama's tempered form of climate change discourse might grant agency to the business community and individuals to play a productive role in stopping climate change, while also making or saving money at the same time. The neoliberal rhetoric employed by Obama in these clusters attempts to connect economic growth with stopping climate change (Singer, 2010). It may or not be mythic or heroic rhetoric, but it might help foster bipartisanship and increase public support for transitioning to a renewable energy economy. These clusters also help confirm work done on FDR, which showed the

benefits of focusing on how protecting the environment also promotes economic growth (Daughton & Beasley, 2004). Of course, the challenge of convincing Republicans that a transition to a renewable energy economy can help economic growth is ongoing. However, before the economic recession and the rise of the Tea Party, two influential Republican Senators, McCain of Arizona and Lindsay Graham of South Carolina, supported cap-and-trade legislation (Murray, 2010). The hope is that when the economy rebounds, a renewable energy frame will be persuasive with enough Republicans to pass cap-and-trade legislation.

Political constraint clusters.

Obama faced a very difficult political environment when he took office, despite winning over 300 electoral votes, and the Democratic Party controlling both the House and the Senate. As the recession deepened, the electorate began to doubt the science of climate change, and their concern about the issue declined as well. Coupled with a Republican Party that voted almost unanimously against Obama's entire agenda, it is not surprising that he was unable to pass domestic cap-and-trade legislation or convince the public that the U.S. should take action to reduce greenhouse gas emissions. Obama recognized this challenge early, though, stating in his first speech that, "Rigid ideology has overruled sound science" (Obama, 2009a). However, he is very light on the details, and even though it is evident he is talking about climate skeptics, he did not call them out specifically. Instead of talking about climate change skeptics, the Republican Party, or coal state Democrats, he takes a very passive aggressive approach. He refers to the "back-and-forth of Washington politics" (Obama, 2009d), and thanking "members of Congress" who are willing to place America's progress before the usual Washington politics" (Obama, 2009e). His inability to challenge the climate change skeptics of the Republican and Democratic parties arguably demonstrates a miscalculation on Obama's part. He needed either to challenge

them directly, or move on from the issue without wasting precious time. No one wants to hear about partisan gridlock; the American people want to hear about how Obama is leading on the issue.

As time wore on, Obama addressed how "our politics has remained entrenched along worn divides" (Obama, 2010d), but that he is "happy to look at other ideas and approaches from either party" (Obama, 2010g). Despite all of these chances, Obama never mentioned public opinion, any specific Republicans or Democrats, and did not attempt to build a coalition across party lines. The only attempt he made at bipartisanship was not even on climate change, but rather on nuclear power, when he spoke about how Republicans long supported these efforts (Obama, 2010c). Not once did Obama mention that his opponent in the previous election, McCain, supported legislation to limit greenhouse gas emissions. Obama also failed to deal directly with the growing problem that public opinion began to turn against the science of climate change, in favor of skepticism. Obama clearly knew of the political constraints, since he had to use a massive amount of political capital to pass his stimulus package and health care reform, despite having a filibuster-proof majority in the Senate, and a large majority in the House. However, his rhetorical choices indicate a lack of commitment on the political issue, instead haphazardly and passive aggressively talking about politics as usual. After expending so much political effort on passing health care reform and the stimulus package, it is likely that Obama made a political calculation that he did not have enough capital left to spend on cap-and-trade legislation. Following the 2010 midterm elections, which demonstrated the strength of the Tea Party, moderate Republicans like McCain and Graham felt like they needed to move further to the right as a result (Murray, 2010). This likely prevented any action on cap-and-trade legislation in the Senate.

Obama missed a huge chance to frame this issue effectively. Survey data shows that the way people speak about climate change significantly influences how they feel about the issue (Schuldt, Konrath, & Schwarz, 2011). Since climate change is such a divisive issue, Obama might have instead framed the debate on the economic benefits of transitioning to a renewable energy economy, as opposed to ever speaking about the issue of climate change. Even though the problems at home seemed insurmountable, the issue of dealing with over 200 countries in the international arena also created several constraints for Obama.

International constraint clusters.

Climate change represents the greatest transnational issue facing the world in the 21st century. Obama recognized the transnational nature of this issue very early on, before he even took office. It is quite surprising that even though Obama is in favor of reducing greenhouse gas emissions, the U.S. remains one of the main impediments to any efficacious international climate change accord, just like with the Kyoto Protocol. Despite this pessimism, Obama did recognize that the international challenges he faced were serous. In his first speech on the issue, Obama stated, "the U.S. cannot meet this challenge alone" (Obama, 2008b). He recognized the two major impediments to action on climate change on the international level. Obama declared, "Yes, the developed nations that caused much of the damage to our climate over the last century still have a responsibility to lead" (Obama, 2009g), which is a sharp change in rhetoric from previous administrations. At the same time, he explained that "those rapidly-growing developing nations that will produce nearly all the growth in global carbon emissions in the decades ahead must do their part as well" (Obama, 2009g). At the very least, he successfully recognized the main division between developed and developing countries.

Although Obama's references to international constraints lessened over time, he still spoke honestly about the issue, stating, "We cannot meet this challenge unless all the largest emitters of greenhouse gas pollution act together. There's no other way" (Obama, 2009g). His discussion of international constraints, however, completely disappeared following the failed climate change talks in Copenhagen. These international constraints would worsen, and Obama did not attend the climate change talks in either Cancún or Durban. It seems that times have not changed, despite Obama stating in Copenhagen, "We know the fault lines because we've been imprisoned by them for years" (Obama, 2009j). The international community remains imprisoned by these fault lines. Although Obama recognized the issues facing the international community, mainly the split between developing countries that feel that the developed world created much of the problems, and the developed countries that do not want to harm their economies by reducing greenhouse gas emissions, he did not successfully construct an international consensus for action on climate change.

This is one area where I contend the current literature on climate change discourse and the American presidency should be reconsidered. Carcasson (2004) argues that future presidents should abandon the Reagan-era framing of solving environmental issues through individualism and consumerism. When Carcasson made this argument, the international community and the people of the U.S. were more likely to accept climate change as a legitimate threat to the environment and economy. However, at a time of an economic recession, Obama needed to find a more persuasive way to connect with the international community and the American people on this issue. The most prominent agon cluster present in Obama's speeches on climate change is references to a renewable energy economy, which represents his attempt at constructing an audience in favor of action to stop climate change.

Clean energy, environmental protection, and economic growth agon cluster.

Typically, the rhetorical critic determines the focus of an agon cluster in an attempt to identify key oppositional terms. In this instance, Obama actually identifies the most important agon cluster, which is the comparison between clean energy, the environment, and economic growth. Faced with an American public deeply concerned about the recent economic recession, and a Democratic base that includes many environmentalists, Obama attempted to balance these two competing ideas by establishing a frame that included protecting the environment and improving the economy. He attempts to shift the debate away from the traditional "zero sum" analysis that any action that helps the environment will hurt the economy. Obama made this argument clearly,

You know, there's a lot – a lot of times there's an argument about economic growth versus the environment. And in the debate that's going on about climate change right now, a lot of people say we can't afford to deal with these emissions to the environment. But the fact of the matter is energy efficiency is a perfect example of how this can be a win-win. (Obama, 2009i)

He describes this as a fight more for clean energy, and less about stopping climate change. He always justifies action on climate change through clean energy and energy efficiency, and never strictly in environmental terms.

Making matters worse, he constantly plays defense. For example, Obama said, "I know that there is some concern about how energy fits together with climate change...It's good for our national security and reducing our dependence on foreign oil. It's good for our economy because it will produce jobs" (Obama, 2010b). Even when he establishes a credible argument about clean energy, he takes two steps backwards by conceding arguments to his opponents without placing

that is elastic enough to accommodate very different groups, in this instance his use of generalities might make for good sound bites, but it is harmful to his overall argumentative strategy. Obama concedes that, "there are costs associated with this transition. And there are some who believe that we can't afford those costs right now. I say we can't afford not to change how we produce and use energy because the long-term costs to our economy, our national security, and our environment are far greater" (Obama, 2010g). This cluster lacks the details necessary to explain his argument effectively.

It is important to identify agon clusters because it places Obama's arguments in a broader context. In the case of Obama's speeches on climate change, it demonstrates his willingness, albeit unproductive, to offer concessions to the other side, while simultaneously hoping to win a framing battle over whether helping the environment also helps the economy. Now that I have performed a close reading of all of Obama's speeches on climate change, I give closer attention to Obama's worldview, which is the final step of cluster criticism.

Obama's Worldview

After conducting this analysis, I conclude that the worldview on climate change espoused in Obama's speeches consists of three motivational features: a belief in the threats posed by climate change to the environment and economy, a recognition that the economic recession poses an immediate threat to the U.S. and international community, and a deep desire to remain popular with the American public. My analysis confirms that Obama's worldview likely consists of a desire to stop climate change. He references climate change, clustering the phrase with sub-terms that deal with the economy, in 21 major policy addresses he delivered in the first two years of his presidency. Even when the recession deepened in 2010, he still mentioned the climate change

phrase in the State of the Union address and in six additional policy speeches. However, from the time of his election in 2008 until the end of 2009, Obama delivered twice as many speeches on the issue of climate change. Even though Obama still referenced the climate change phrase in 2010, the decline is noticeable, and his desire to spend precious political capital on an international climate change accord lessened to the point where he did not even show up to the Cancún climate change talks in December 2010.

Obama named the economic recession as the most important issue facing the U.S. in his Inaugural Address, and this stance continued throughout his entire presidency. By presenting "clean energy," "economic growth," and "environmental protection" as agon clusters within his speeches on climate change, Obama demonstrated his deep concern with the economic recession. This is very similar to the way that FDR spoke about environmental issues, framing environmental protection as helpful for economic growth (Daughton & Beasley, 2004). This was not just a fight to protect the environment, but represented an argument over the benefits of transitioning to a renewable energy economy. Although he remained deeply committed to the climate change cause on a personal level, the analysis of Obama's speeches conducted by Boykoff (2012) I believe confirms that he was concerned most about the economy and his own popularity.

Most presidents are deeply concerned about re-election in their first term, and the case is no different with Obama. Reports show that Obama plans to raise over \$750 million in campaign donations (whereas Mitt Romney predicts he will raise \$800 million), and at times, it feels like Obama has campaigned for a second-term since the moment that he took office (Barabak, 2012). Previous work conducted by Moore (2004) showed how Clinton was deeply concerned about winning re-election, while also attempting to stay true to his pledges to protect the environment.

I notice this similar attitude in Obama, in that he remains committed to fight climate change, but only insofar as it is popular. As time wore on, and public opinion continued to worsen for Obama on the issue of climate change, the references he made to the issue mostly disappeared (Buckley, 2012; Boykoff, 2012). In the final section, I discuss several important insights and points of discussion on climate change discourse and the American presidency offered by this study.

Discussion and Conclusions

In this research paper, I examined Obama's climate change speeches through the model of the rhetorical situation (Bitzer, 1968; Vatz 1973) and the method of cluster criticism (Burke, 1973; Foss, 2009). Now, it is important to return explicitly to the research questions I posed at the end of the methods chapter. The combination of the rhetorical situation with cluster criticism is a unique approach to presidential discourse not seen in any other works. A major focus of this study is on highlighting the effectiveness of this approach, which is why all three of my research questions dealt directly with unpacking this method.

The rhetorical situation model and climate change action.

I proposed a model driven inquiry in my first research question, asking in what ways does the conceptual model of the rhetorical situation (Bitzer 1968; Vatz, 1973) provide insights on how Obama's climate change discourse enables and constrains environmental action? The three main elements of the rhetorical situation, including exigencies, constraints, and the idea of a rhetorical audience, have all aided in this analysis of Obama's speeches on climate change. Some scholars have made arguments defending the tempered use of apocalyptic rhetoric (Johnson, 2009; Foust & Murphy, 2009), while others criticized the use of fear appeals (O'Neill & Nicholson-Cole, 2009). In one way, the high profile of the American presidency gives instant credibility to the issue of climate change, enabling a debate on the issue. As the leader of his

party and chief executive of the U.S., the president helps set the agenda in both the U.S. and in the global arena. Obama took an issue mostly ignored by the Bush administration and turned it into an international debate over the course of action necessary to stop climate change.

Two issues remain, both of which create constraints. First, using the climate change phrase constrains action on climate change, in most instances, as opposed to enabling it. It seems obvious that to fight climate change one must speak about climate change. However, this is not the case. Since greenhouse gas emissions cause climate change, speaking only about clean energy might accomplish the same goals. This approach is not without its potential drawbacks. The first potential drawback is that not speaking about climate change might delay action on the transition to a renewable energy economy. Previous research conducted in the field of communication studies demonstrates that a more tempered form of apocalyptic rhetoric might construct the identity of an audience in ways that are productive in the fight against climate change (Foust & Murphy, 2009; Johnson, 2009). Yet Obama did not employ the most effective ways to temper his apocalyptic rhetoric on climate change because he did not spend enough time discussing the issue to connect with his audience. Even if scholars concluded that a tempered form of apocalyptic rhetoric is justified, Obama is still a long ways from listening to their recommendations. The second potential drawback arises because a transition to a renewable energy economy does not necessarily entail the most environmentally friendly energy sources. Finding the most economical energy sources that emit less carbon, such as liquid natural gas or biofuels, might have adverse implications on the environment that are not considered in an economic frame. In this same light, Republicans have often co-opted the renewable energy frame to promote natural gas, offshore oil drilling, and proposed oil pipelines, all of which present environmental problems. In that way, this proposed renewable energy frame might lead to

"greenwashing." The final drawback is that it still might not convince Republicans to pass capand-trade legislation because the renewable energy frame is seen as environmental protection,
not economic stimulus. Future research should explore whether the American public associates
discourse focusing on the benefits of renewable energy with climate change. This is similar to
previous survey research conducted by Schuldt et al. (2011) that showed the different
associations people carried with the global warming and climate change phrase.

Obama created a second constraint because he spoke about this issue at a time of increased partisanship, meaning his support of climate change legislation actually prevented action on this issue. At a time when nearly every law required a supermajority of sixty votes in the U.S. Senate, building a bipartisan coalition was necessary to pass cap-and-trade legislation.

Although Obama helped bring debate on the climate change issue, the constraints

Obama's rhetoric placed on environmental action are far greater than any possible enabling
benefits. First, Obama did not engage the public on the scientific basis for climate change.

During the mid-2000's, when economic growth increased and people were more concerned about the environment, Obama would not have to discuss this scientific basis. Yet when American public opinion trended towards skepticism, Obama needed to either disregard these claims completely, or actually take on the climate skeptics. Previous research from Lakoff (2010) demonstrates that environmentalists have failed to develop a successfully framed connection between economic growth and environmental protection. If Obama wants to convince the public that they should act to stop climate change, the first step is developing a dominant frame for the issue. For example, Reagan successfully created a pro-development frame about the environment by employing myths about America (Short, 2004). Today, popular writers and gurus like

Friedman are attempting to create a new frame utilizing neoliberal style (Singer, 2010).

Lorenzoni and Hulme (2009) showed that the information received is the defining factor in determining people's attitudes on climate change. Thus, Obama not only had to frame the issue correctly, but he also had to ensure that people were looking to him for how to view climate change.

Even if people looked to Obama for the scientific facts, he failed in delivering them, simply repeating that scientists and the international community settled the debate, despite popular opinion trending away from this proposition. Obama's first error, if he were to engage the public on the issue of climate change, occurred because he was unwilling to challenge the climate skeptics that were attempting to dominate the debate on the issue despite having little science to back up their claims. Once he decided to engage the public on climate change, the second error Obama made happened when he framed the issue with an environmental message instead of one strictly focusing on the benefits of transitioning to a renewable energy economy. By focusing on an uplifting message about the benefits of a renewable energy economy, Obama could have avoided the pitfalls of apocalyptic rhetoric.

The use of non-tempered apocalyptic rhetoric can create a distancing feeling between individuals and their own responsibility towards the environment. Research from the fields of psychology and communication studies shows that non-tempered apocalyptic and fear appeals are a major constraint on environmental action (Foust & Murphy, 2009; Johnson, 2009; O'Neill & Nicholson Cole, 2009; Weber & Stern, 2011; Griffin, 2011). Although there is a small possibility that clustering the environmental impacts of climate change with economic benefits might have tempered this apocalyptic rhetoric in a relevant way, it certainly did not move public opinion on the issue. However, there are examples that I documented in the literature review demonstrating the success of previous presidents who developed an audience in favor of

conservation. Even during the Great Depression, FDR convinced the public that conservationist measures were necessary to rebuild the economy (Daughton & Beasley, 2004). Theodore Roosevelt won over the American public, despite steep odds he faced when challenging the natural resource lobbies (Oravec, 2004). Neither of these two presidents utilized the apocalyptic rhetoric and fear appeals that dominate the modern day environmental movement.

There are several ways Obama could have tempered his apocalyptic rhetoric in hopes of developing an audience in favor of stopping climate change. Johnson (2009) documented the use of narrative in An Inconvenient Truth as an effective strategy in reducing the distancing effect created by apocalyptic rhetoric. Obama had several avenues he could have taken if he wanted to speak about his own experience. Born on the Hawaiian Islands and spending part of his childhood in Indonesia, Obama could have made connections with a large percentage of the world population that lives near the ocean about the negative implications of sea level rise. He also chose not to explain directly how climate change might negatively affect short and longterm economic growth, a strategy perfected by FDR (Daughton & Beasley, 2004). This opportunity would help push public opinion in his favor. As of now, the trend is towards people denying that the impacts of climate change have any immediate impact on their lives. Defined across disciplines, the lack of immediacy is a major impediment to acting on climate change (Foust & Murphy, 2009; Weber & Stern, 2011; Griffin, 2011). There are studies that discuss the ongoing impacts of climate change, but Obama failed to call upon these examples. He need not bore people with the details of climate science, but just like in An Inconvenient Truth, Obama could have combined personal narrative and American mythology in his speeches. This tactic, explained by Singer (2010) and Johnson (2009), could combine to create a frame that connects economic growth with a tempered form of apocalypticism that provides audiences with hope and social agency. It would also avoid the negative effect Obama's "even if" statements had on the fight to pass cap-and-trade legislation. By not engaging the climate science debate at all, Obama could have avoided granting legitimacy to climate change skeptics.

The final element of the rhetorical situation model, the rhetorical audience, also significantly constrained environmental action. Even though in every instance Obama spoke to an audience that could create efficacious change, he did not reach out to the most important groups. Obama delivered these speeches at the United Nations, the Copenhagen climate change talks, a meeting of governors and international leaders, the conclusion of tours of manufacturing plants, the White House, and in front of the entire country during the State of the Union. There are two noticeable groups absent in this discussion of climate change, and the problem lies both in the frequency and intensity that he spoke about the issue with these groups. First, even though a main justification for this study centered on the notion that the state is necessary to stop climate change, Obama never spoke directly to the individual citizen. If everyone in the U.S. took individual action to reduce his or her carbon footprints, it would have a significant positive effect on fighting climate change. Second, Obama never directly addressed the U.S. Congress on the issue, which could have the greatest influence on changing climate change policy by passing cap-and-trade legislation. Obama did refer to the House of Representatives, and the politics of Washington, but he exercised very little public effort attempting to influence Republicans or moderate Democrats to support the legislation. Although Obama could have made greater use of the rhetorical audiences he faced, overall he made a great use of a wide variety of audiences.

To summarize, an important power of the American presidency is the ability to set the agenda for the country (Nye Jr., 2002). However, communication studies literature also tells us that simply setting the agenda is not enough, but that the president must also frame the issue in

an appropriate manner (Lakoff 2010). Even though Obama utilized his power to set the agenda by making climate change legislation a centerpiece of his presidency, Obama's rhetoric actually constrained environmental action in multiple ways as well. First, Obama did not effectively engage the public about the science of climate change, despite more and more Americans siding with the skeptics. Second, Obama did not effectively temper his rhetoric, despite more and more Americans feeling like climate change is either too distant or a complete non-issue. Although I believe Obama acknowledged the presence of most of the exigencies and constraints present in the rhetorical situation he faced, Obama was not effective overall because he lacked depth on most of the issues. His decision to engage the issue of climate change without justifying the scientific basis of the phenomenon turned out to cause more harm than good. The next section discusses the role of cluster criticism in this research project.

Cluster criticism and climate change.

Cluster criticism enables rhetorical critics to understand the choices made by presidents on important transnational issues such as climate change, although it does present some limitations. The most important aspect of cluster criticism is that it helps critics understand how intensity and repetition of language choices emphasize certain rhetorical motives. Through a close textual reading of Obama's 21 speeches on climate change, I was able to identify motivating assumptions organizing Obama's rhetoric on climate change. Obama's oldest speeches showed a greater willingness to discuss the scientific basis for climate change, the ecological impacts of failing to act, as well as the economic gains from an economy based on renewable energy. However, as the recession deepened in 2010, with public support for action against climate change waning, Obama started giving into the climate change skeptics. In the previous sections, I provided evidence of this motive through both the limited number of

speeches and references he made to climate change, and when he stated that it is acceptable to doubt the science of climate change, as long as you support a renewable energy economy. This represents a calculated decision in priorities by the Obama administration to the growing trend against taking action on climate change. However, even at this stage, Obama does still reference the issue in the context of climate change, instead of simply talking about the economic benefits of a renewable energy economy. Investigating the clusters around the climate change phrase over time and across his speeches has helped me better understand the framing employed by Obama, which is such an important element of climate change discourse and the American presidency. By examining what he says before, during, and after he uses the climate change phrase helps explain his rhetorical motives, giving the phrase particular meaning and functions.

This method also allows a deeper investigation into the specifics of transnational issues such as climate change. Unpacking the clusters around the climate change phrase demonstrates the deep complexity of the issue. Obama is forced to explore the transnational nature of the issue by discussing not only how climate change might affect the U.S., but also how it might damage smaller countries that have little power in the international arena. He also had to address the concerns of developing countries like China that feel they should be exempted from binding international agreements. I unpacked all of this using cluster criticism, which helped better understand Obama's motives. The next section demonstrates how the rhetorical situation influenced Obama's discourse.

The rhetorical situation and Obama's discourse.

The last research question I have addressed deals with how the different elements of the rhetorical situation enable and constrain Obama's climate change discourse. Although this question sounds similar to the first, it is different because it is less about evaluating Obama's

discourse and deals more with how the rhetorical situation explains the choices made by the rhetor. Specifically, I will discuss how the exigencies, constraints, and the rhetorical audience influenced Obama's decision. The climate change exigence demonstrated a clear influence on Obama's decisions. As stated in the introduction, the issue was important to Obama from the beginning, and the only question that remained was whether he would follow through on his promise to act on climate change. Although his references to climate change faded as time went on, he did not give up on the fight, continuing to mention the issue in major addresses despite the deepening recession. Thus, Obama's personal politics significantly influenced his decision to discuss this issue, and the climate change exigence helped shape how Obama framed the debate.

The economic exigence played an even greater influence on Obama's decision-making. When Obama took office, the U.S. economy experienced the worst recession since the Great Depression. Even when the economy officially left the recession behind in 2009, economists throughout the country felt the economy could enter another recession. Represented in many of the clusters around Obama's use of the climate change phrase, these clusters specifically mention the need to create a renewable energy economy that will create 21st century jobs to ensure American competitiveness. Just like with the climate change exigence, the economic recession influenced how Obama framed the issue. This is certainly an area of improvement because, if Obama decided he should talk about climate change, he should have talked about the short and long-term economic impacts of failing to stop climate change. He did discuss sea level rise, droughts, and famine, but he did not frame these negative consequences in terms of short or long-term negative economic consequences.

The economic condition also shaped Obama's climate change discourse in an even greater way because of the way the recession influenced America's attitudes on climate change.

Due to the ways public opinion influences presidential decision-making, the economic recession played a major role in shaping Obama's climate change discourse. When the economy continued to worsen more and more Americans increased their skepticism of the science of climate change. This constrained Obama's rhetoric because not only did he have to convince the public that stopping climate change would help economic growth, but also that the climate change warranted taking risks during a recession. Instead of spending time talking about the science of climate change, Obama just asserted that the science of climate change was sound, and moved on to justify a renewable energy economy. Public opinion constrained Obama's climate change discourse because the American public simply does not believe that climate change is a problem, decreasing the likelihood that they will support action to stop climate change. Obama's climate change discourse constrained environmental action, despite responding to the rhetorical situation he faced effectively in certain ways. Cluster criticism helped enable a deeper understanding of Obama's speeches on climate change, but also created some drawbacks.

In the final research question, I addressed how the rhetorical situation faced by Obama influenced his climate change discourse. Now that I have drawn some theoretical and practical conclusions, the final sections of this research paper will explain the contributions of my study to environmental rhetoric scholarship, and offer directions for future research.

Contributions to environmental rhetoric scholarship.

This study identifies limitations of apocalyptic rhetoric and fear appeals in presidential discourse on climate change. It is important at this stage to point out that I do not believe that it is necessary for future presidents to abandon their use of apocalyptic rhetoric and fear appeals completely. However, as Johnson (2009) and Foust and Murphy (2009) argue, a more tempered form of rhetoric is required. My analysis points out that Obama simply does not have enough

time to spend discussing the issue to construct an audience when using tempered apocalyptic rhetoric or fear appeals. The method outlined by Johnston and Foust and Murphy would require the president to make emotional connections with the audience by drawing on their own personal experiences. I have offered a few ways in which Obama, specifically, could have done this. Yet at this point, Boykoff (2012) notes that Obama has stopped talking about the issue in terms of climate change.

I also believe that this study contributes to environmental rhetoric scholarship by combining the rhetorical situation with cluster criticism, and showing the utility of this hybrid framework. This method allows for a close textual reading of the artifacts, while also drawing on the rhetorical context where the rhetor finds herself. This method allows for a return to a more traditional focus on public address, since I do not choose a specific rhetorical lens (i.e. feminist or Marxist) to view the artifacts through. It also demonstrates the importance of identifying agon clusters when conducting this type of criticism, since so much of this argument relies on arguing that Obama should focus on the benefits of transitioning to a renewable energy economy. Finally, I believe conducting this study through a new combination of models and methods, along with choosing presidential speeches and artifacts, presented several limitations and areas for future research. I discuss these two possibilities in the last section of this research paper.

Limitations of this study and directions for future research.

There are several potential limitations of this study. Some of them are methodological choices, while others deal with my decision to study climate change discourse and the American presidency. The methodological choice I made in this study, to combine the rhetorical situation with cluster criticism, has one major limitation. It deals with the nature of the rhetorical situation, specifically its element of the rhetorical audience. Even though the rhetorical situation deals with

the rhetorical audience, it asks how the rhetor constitutes and adapts to the audience, and asks whether the audience could carry out the change asked by the rhetor. I provide no analysis on how individuals reacted to Obama's individual speeches on climate change, and the effectiveness of them must be gauged by whether he did or did not foster climate change legislation or international accords. Future researchers could develop studies that use focus groups or survey data to isolate the exigencies that the American people actually care about most. By using this type of data, future researchers might better test the effectiveness of Obama's rhetoric. These two limitations, combined with those of cluster criticism, round out the limitations of my methodological choices.

Cluster criticism presents one major methodological limitation. Since cluster criticism only examines clusters that surround the chosen phrase of climate change, there are portions of the text of Obama's speeches that receive very limited attention. Fortunately, its combination with the rhetorical situation resolves most of these issues since I include a discussion of exigencies and constraints, which includes most of the text. Future research using cluster analysis could give more attention to quantification, to assess better the frequency and intensity of more phrases than just climate change and the listed exigencies and constraints. In conjunction with the suggestions made above, new research could supplement current research conducted on this issue. The final set of limitations deals with my decision to study Obama's speeches on climate change.

I made a decision to study Obama's speeches on climate change because of the societal importance of the issue, and because of the lack of literature in environmental rhetoric scholarship on climate change. However, future studies might look at some of the following areas to advance the literature on climate change discourse. As discussed throughout this

research paper, climate change represents a transnational issue that requires international action to prevent the worst consequences of climate change. Since the biggest impediment to cap-andtrade legislation were Republicans in the Senate, future studies might analyze the speeches of members of the Senate who voted against the legislation to gain insight into why they doubt the science of climate change or question the economic benefits of a renewable energy economy. There is also an opportunity to gain insights from studying the speeches of leaders from other countries, specifically China, which represent some of the largest impediments to an efficacious international climate change accord. With the increasing importance of non-governmental organizations and the role individuals play in stopping climate change, future studies should also consider an analysis of popular campaigns such as 350.org that attempt to limit global greenhouse gas emissions. However, with the growing shift towards discussing fuel efficiency and clean energy as opposed to climate change, it might be just as effective to study those issues instead of climate change. Although this study represents several limitations in terms of methodologies and artifacts chosen, hopefully it answered several gaps in the literature that were identified previously. Despite the slim prospects that an efficacious climate change accord will pass before 2020, future studies might uncover ways to move the debate on climate change discourse forward.

REFERENCES

- Anderegg, W. R., Prall, J. W., Harold, J., & Schneider, S. H. (2010). Expert credibility in climate change. *Proceedings of the National Academy of Sciences*. Retrieved May 16, 2012, from http://www.pnas.org/content/early/2010/06/04/1003187107.full.pdf+html
- Barabak, M.Z. (2012, June 26). Campaign 2012: Obama fundraising plea says he will be outspent. *The Los Angeles Times*. Retrieved June 27, 2012, from http://www.latimes.com/news/politics/la-pn-obama-fundraising-plea-says-he-will-be-outspent-20120626,0,6086262.story
- Beade, A. P. M. (n.d.). Appendix I-Glossary. *Working group I: The scientific basis*. Retrieved May 16, 2012, from http://www.ipcc.ch/ipccreports/tar/wg1/518.htm
- Benson, R. (2011, March 22). 3/4th of Senate GOP doesn't believe in climate science: When did Republicans go completely off the deep end? *AlterNet*. Retrieved May 30, 2012, from http://www.alternet.org/story/150340/3_4ths_of_senate_gop_doesn't_believe_in_science _--_when_did_republicans_go_completely_off_the_deep_end/
- Berthold, C. A. (1976). Kenneth Burke's cluster-agon method: Its development and application. *Central States Speech Journal*, 27, 302-309.
- Bitzer, L. F. (1968). The rhetorical situation. *Philosophy and Rhetoric*, 1, 1-14.
- Boykoff, M. T. (2012, January 12). A dangerous shift in Obama's 'climate change' rhetoric.

 Washington Post. Retrieved May 19, 2012, from http://www.washington

 post.com/opinions/a-dangerous-shift-in-obamas-climate-change-rhetoric/2012/01/26

 /gIQAYnwzVQ_story.html
- Brzezinski, Z. (2007). Second chance: Three presidents and the crisis of American superpower.

 New York, NY: Basic Books.

- Buckley, C. (2012, March 8). Climate change skepticism stems from recession, UConn study finds. *UConn Today*. Retried May 31, 2012, from http://today.uconn.edu/blog/2012/03/climate-change-skepticism-stems-from-recession-uconn-study-finds/
- Burke, K. (1973). *The philosophy of literary form: Studies in symbolic action*. Berkeley, CA: University of California Press.
- Burstein, P. (2003). The impact of public opinion on public policy: A review and an agenda.

 *Political Research Quarterly, 56, 29-40.
- Carcasson, M. J. (2004). Global gridlock: The American presidency and the framing of international environmentalism, 1988-2000. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 258-282). College Station, TX: Texas A&M University Press.
- Censky, A. (2010, June 9). Double dip recession: what are the odds? *CNN Money*. Retrieved May 22, 2012, from http://money.cnn.com/2010/06/09/news/economy/double_dip_recession/index.htm
- Chestney, N. (2012, March 26). Global warming close to becoming irreversible- scientists.

 Reuters. Retrieved May 20, 2012, from http://www.reuters.com/article/2012/03/26/us-climate-thresholds-idUSBRE82P0UJ20120326
- Connor, S. (2007, October 25). Scientists say Kyoto protocol is 'outdated failure'. *Independent*. Retrieved May 16, 2012, from http://www.independent.co.uk/environment/climate-change/scientists-say-kyoto protocol-is-outdated-failure-397801.html
- Cox, J. R. (2004). The (re)making of the environmental president: Clinton/Gore and the rhetoric of U.S. environmental politics, 1992-1996. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 157-175). College Station, TX: Texas A&M University Press.

- Cox, J. R. (2010). Beyond frames: Recovering the strategic in climate communication. *Environmental Communication*, 4, 122-133.
- Daughton, S. M., & Beasley, V. B. (2004). The president and the reformer: Rhetoric, politics and the environment under Franklin Delano Roosevelt. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 85-106). College Station, TX: Texas A&M University Press.
- Dilling, L. & Moser, S. C. (2007). Introduction. In L. Dilling & S.C. Moser (Eds.), *Creating a climate for change: communicating climate change and facilitating social change* (pp. 1-30). Cambridge: Cambridge University Press.
- Discourse. (n.d.). In *Oxford online*. Retrieved May 16, 2012, from http://oxforddictionaries.com/definition/discourse
- Dorsey, L. G. (2004). Preaching conservation: Theodore Roosevelt and the rhetoric of civil religion. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 37-57). College Station, TX: Texas A&M University Press.
- Foust, C. R., & Murphy, W. (2009). Revealing and reframing apocalyptic tragedy in global warming discourse. *Environmental Communication*, *3*, 151-167.
- Friedman, T. L., & Mandelbaum M. (2011). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York, NY: Farrar, Strauss, and Giroux.
- Foss, S. K. (2009). *Rhetorical criticism: Exploration and practice*. Long Grove, IL: Waveland Press.
- Global warming. (n.d.). In *Oxford online*. Retrieved May 16, 2012, from http://oxforddictionaries.com/definition/global_warming

- "Global warming capable of sparking mass species extinctions". (2006, April 11). *Science Daily*.

 Retrieved May 16, 2012, from http://www.sciencedaily.com/releases/2006/04/
 060411230548.htm.
- Gore, A. (2006). An inconvenient truth: The planetary emergency of global warming and what we can do about it. New York, NY: Rodale.
- Griffin, R. (2011). The dragons of inaction: psychological barriers that limit climate change mitigation and adaptation. *American Psychologist*, *66*, 290-302.
- Hart, R. P., & Daughton, S. (2005). *Modern rhetorical criticism*. Boston, MA: Pearson.
- Harvey, F. (2011, November 20). Rich nations 'give up' on new climate treaty until 2020. *The Guardian*. Retrieved May 31 2012, from http://www.guardian.co.uk/environment/2011/nov/20/rich-nations-give-up-climate-treaty
- Henry, D. P. (2004). "We're coming clean": Clinton, public advocacy, and the human radiation experiment. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 207-225). College Station, TX: Texas A&M University Press.
- Herszenhorn, D., & Hulse, C. (2009, February 11). Deal reached in Congress on \$789 billion stimulus plan. *The New York Times*. Retrieved June 25, 2012, from http://www.nytimes.com/2009/02/12/us/politics/12stimulus.html
- Hess, J.B. (2012, February 29). Energy policy is fundamental to U.S. competitiveness. *Harvard Business Review*. Retrieved June 29, 2012, from http://blogs.hbr.org/cs/2012/02/energy_policy_is_fundamental_t.html
- Holan, A. D., & Pleva, L. (2010, July 26). Cap and trade legislation stalls in the Senate.

 Politifact. Retrieved May 29, 2012, from http://www.politifact.com/truth-o-meter/article/2010/jul/26/cap-and-trade-legislation-stalls-senate/

- "Importance of issues: economy still number one on voter's minds". (2012, March 4).

 **Rasmussen Reports.* Retrieved May 22, 2012, from http://www.rasmussenreports.com/public_content/politics/mood_of_america/importance_of_issues
- Jacobe, D. (2012, March 29). Americans still prioritize economic growth over environment.

 Gallup. Retrieved May 31, 2012, from http://www.gallup.com/poll/153515/Americans
 Prioritize-Economic-Growth-Environment.aspx
- Johnson, L. (2009). (Environmental) rhetoric of tempered apocalypticism in *An Inconvenient Truth. Rhetoric Review*, 28, 29-46.
- Johnson, M. A. (2008, November 5). Barack Obama elected 44th president. *MSNBC*. Retrieved May 28, 2012, from http://www.msnbc.msn.com/id/27531033/ns/politics-decision 08/t/barack-obama-elected-the-president/#.T8QQftUV2ik
- Khalilzad, Z. Losing the moment. *The Washington Quarterly*, 18, 57-77.
- Kennedy Jr., R. F. (2007). "Keynote Address: We Must Take America Back," 22 *Journal of Environmental Law and Litigation 201* (2007).
- Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication*, 4, 70-81.
- Lenton, T. M. (2011). Early warning of climate tipping points. *Nature*, 1, 201-209.
- "Letter to U.S. President Obama on climate change". (2009, September 24). *Polaris Institute*.

 Retrieved May 16, 2012, from http://polarisinstitute.org/ letter_to_us_president_
 obama_on_climate_change
- Lorenzoni, I., & Hulme, M. (2009). Believing is seeing: Laypeople's views of future socioeconomic and climate change in England and in Italy. *Public Understanding of Science*, 18, 383-400.

- Lynch, J. (2006). Using cluster agon method to assess the radical potential of "European America" as a substitute for "white". *K.B. Journal*, 2. Retrieved June 11, 2012, from http://www.kbjournal.org/lynch
- Krugman, P. (2012). Stop this depression now! New York, NY: W.W. Norton & Company.
- Mearsheimer, J. J. (2001). *The tragedy of great power politics*. New York, NY: W.W. Norton & Company.
- Meehan, C. (2011, April 6). Pew: Renewable energy policies key in securing investments. *Clean Energy Authority*. Retrieved May 16, 2012, from http://www.cleanenergyauthority.com/solar-energy-news/u-s-falls-behind-china-in-clean-energy-investments-040611/
- Mellor, F. (2009). The politics of accuracy in judging global warming films. *Environmental Communication*. *3*, 134-150.
- Moore, M. P. (2004). Colliding ironies and Clinton's salvage rider rhetoric in the northwest timber controversy. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 181-202). College Station, TX: Texas A&M University Press.
- Moore, M. P. (2009). The Union of Concerned Scientists on the uncertainty of climate change: A study of synecdochic form. *Environmental Communication*, *3*, 2009, 191-205.
- Murphy, J. M. (1994). Presence, analogy, and Earth in the Balance. *Argumentation and Advocacy*. 31, 1-16.
- Murray, T. (2010, July 22). Senate Democrats kill cap-and-trade bill. *Green Energy Reporter*.

 Retrieved May 28, 2120 from http://greenenergyreporter.com/policy/senate-democrats-kill-cap-and-trade/

- Newport, F. (2010, March 11). Americans' global warming concerns continue to drop. *Gallup*.

 Retrieved May 31, 2012, from http://www.gallup.com/poll/126560/americans-global-warming-concerns-continue-drop.aspx
- Nisbet, M. C., & Kotcher, J. E. (2009). A two-step flow of influence? Opinion-leader campaigns on climate change. *Science Communication*, *30*, 328-354.
- Nye Jr., J. S. (2002). The paradox of American power: Why the world's only superpower can't go it alone. New York, NY: Oxford University Press.
- Nye Jr., J. S. (2004). Soft power: The means to success in world politics. New York, NY: Public Affairs.
- Nye Jr., J. S. (2011). *The future of power*. New York, NY: Public Affairs.
- Obama, B. (2008). Barack Obama on the issues. *The Washington Post*. Retrieved May 16, 2012, from http://projects.washingtonpost.com/2008-presidential-candidates/issues/candidates/barack-obama/
- Obama, B. (2008, November 18). President-elect Barack Obama to deliver taped greeting to bipartisan Governors climate summit. *Change.gov*. Retrieved June 25, 2012, from
 http://change.gov/newsroom/entry/president_elect_barack_obama_to_deliver_taped_gree
 ting_to_bi_partisan_gover/
- Obama, B. (2009, January 26). Obama announces plans to achieve energy independence. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/51/
- Obama, B. (2009, March 19). Obama speaks after tour of electric car plant. *The Washington**Post. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches

 /speech/127/

- Obama, B. (2009, March 23). Obama delivers remarks on clean energy and technology. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/77/
- Obama, B. (2009, May 19). Obama delivers remarks on fuel efficiency standards. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/3/
- Obama, B. (2009, June 29). Obama delivers remarks on energy. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/44/
- Obama, B. (2009, July 2). Obama delivers remarks on innovation and jobs. *The Washington**Post. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches

 /speech/2/
- Obama, B. (2009, September 22). Obama addresses climate change at the U.N. *The Washington**Post. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches

 /speech/32/
- Obama, B. (2009, October 27). Obama delivers remarks at solar energy center. *The Washington**Post. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches

 /speech/27/
- Obama, B. (2009, December 15). Obama delivers remarks on the economic impact of energy saving home retrofits. *The Washington Post*. Retrieved June 25, 2012, from http://projects. washingtonpost.com/obama-speeches/speech/153/
- Obama, B. (2009, December 18). Obama delivers remarks at opening plenary session of UN climate change conference. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/155/

- Obama, B. (2010, January 27). Obama delivers State of the Union address. *The Washington Post*.

 Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/
 speech/169/
- Obama, B. (2010, February 3). Obama addresses nation's governors about energy policy. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.
- Obama, B. (2010, February 16). Obama delivers remarks at a job-training center. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.
- Obama, B. (2010, March 31). Obama makes remarks on offshore oil drilling. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/210/
- Obama, B. (2010, April 16). Obama delivers remarks at the White House Conference on America's Great Outdoors. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/217/
- Obama, B. (2010, April 27). Obama tours the Siemens wind turbine blade manufacturing plant. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.

 com/obama-speeches/speech/231/
- Obama, B. (2010, June 15). Obama remarks from Oval Office on BP oil spill. *The Washington Post*. Retrieved June 25, 2012, from http://projects.washingtonpost.com/obama-speeches/speech/290/

- "Obama promises bold action on the economy". (2009, January 20). *CNN*. Retrieved May 22, 2012, from http://articles.cnn.com/2009-01-20/politics/obama.speech_1_economic-crisis-national-mall-president-barack-obama?_s=PM:POLITICS
- O'Neill, S., & Nicholson-Cole, S. (2009). Fear won't do it: Promoting positive engagement with climate change through visual and iconic representations. *Science Communication*, *30*, 355-379.
- Oravec, C. (2004). Presidential public policy and conservation: W. J. McGee and the people. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 62-77). College Station, TX: Texas A&M University Press.
- Peterson, T. R. (2004). Introduction. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 3-30). College Station, TX: Texas A&M University Press.
- Rampell, C. (2009, June 19). The economic impact of climate change. *The New York Times*.

 Retrieved May 16, 2012, from http://economix.blogs.nytimes.com/2009/06/16/the-economic-impact-of-climate-change/
- Reis, P. (2010, September 20). Climate change skeptics sweeping GOP Senate primaries. *The New York Times*. Retrieved May 30, 2012, from http://www.nytimes.com/cwire/2010/09/20/20climatewire-climate-change-skeptics-sweeping-gop-senate-75251.html
- Ross, D. B. (2008). *Statecraft: And how to restore America's standing in the world*. New York, NY: Farrar, Strauss, and Giroux.
- Rosteck, T., & Frentz, T. S. (2009). Myth and multiple readings in environmental rhetoric: The case of *An Inconvenient Truth. Quarterly Journal of Speech*, *95*, 1-19.
- Russill, C. (2008). Tipping point forewarnings in climate change communication: Some implications of an emerging trend. *Environmental Communication*, 2, 133-153.

- Schuldt, J. P, Konrath, S. H, & Schwarz, N. (2011). "Global warming" or "climate change"?

 Whether the planet is warming depends on question wording. *Public Opinion Quarterly*,
 75, 115-124.
- Shaping climate-resilient development. (2009). Retrieved May 16, 2012, from http://ec.europa.eu/ development /icenter/repository/ECA_Shaping_Climate_ Resilent_

 Development.pdf
- Shaw, D. (2009, June 27). How they voted on the cap-and-trade bill. *OpenCongress*. Retrieved May 28, 2012, from http://www.opencongress.org/articles/view/1071-How-They-Voted-on-the-Cap-and-Trade-Bill
- Short, C. B. (1989). Ronald Reagan and the public lands: America's conservation debate.

 College Station, TX: Texas A&M University Press.
- Short, C. B. (2004). Conservation reconsidered: Environmental politics, rhetoric and the Reagan revolution. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 134-150). College Station, TX: Texas A&M University Press.
- Short, C.B., & Hardy-Short, D.C. (2003). "Physicians of the forest": A rhetorical critique of the Bush Healthy Forest Initiative. *Electronic Green Journal*, Retrieved May 16, 2012, from http:// escholarship.org/uc/item/4288f8j5#page-1
- Singer, R. (2010). Neoliberal style, the American re-generation, and ecological jeremiad in Thomas Friedman's "Code Green". *Environmental Communication*, 4, 135-151.
- Solomon, S., Qin, D., Manning, M., Chen, Z., Marquis, M., Averyt, K. B., ... Miller, H. L. (2007).

 Summary for policymakers. *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved May 16, 2012, from http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf

- Stauber, J. C., & Rampton, S. (1995). *Toxic sludge: Lies, damn lies and the public relations industry*. Monroe, ME: Common Courage Press.
- The Guardian: Origins of the EPA. (1992). Retrieved May 16, 2012, from http://www.epa.gov/aboutepa/history/publications/print/origins.html
- Vatz, R. E. (1973). The myth of the rhetorical situation. *Philosophy & Rhetoric*, 6, 157-161.
- Vickery, M. R. (2004). Conservative politics and the politics of conservation: Richard Nixon and the Environmental Protection Agency. In T. R. Peterson (Ed.), *Green talk in the White House* (pp. 113-131). College Station, TX: Texas A&M University Press.
- Vidal, J., Stratton, A, & Goldenberg, S. (2009, December 18). Low targets, goals dropped:

 Copenhagen ends in failure. *The Guardian*. Retrieved May 31, 2012, from http://www.guardian.co.uk/environment/2009/dec/18/copenhagen-deal
- Walsh, B. (2009, September 4). Is there a climate-change tipping point? *Time Magazine*.

 Retrieved May 20, 2012, from http://www.time.com/time/health/article
 /0,8599,1920168,00.html
- Wardekker, J. A., van der Sluijs, J. P, Janssen, P. H., Kloprogge, P., & Petersen, A. (2008).

 Uncertainty communication in environmental assessments: Views from the Dutch science-policy interface. *Environmental Science and Policy*, 11, 627-641.
- Weber, E. U., & Stern, P. C. (2011). Public understanding of climate change in the United States.

 *American Psychologist, 66, 315-328.
- Weber, R. P. (1990). Basic content analysis. Newbury Park, CA: Sage.
- Wolfe, D. P. (2007). Sidestepping environmental controversy through a rhetoric of security: George W. Bush in Summerhaven, Arizona. *Western Journal of Communication*, 71, 28-48.

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