

Fighting Climate with Religion: A look into Judeo-Christian perspectives on
climate change

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A thesis submitted to the
University of Colorado at Boulder
in partial fulfillment
of the requirements to receive
Honors designation in
Environmental Studies
May 2014

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Abstract

Previous studies have had mixed results in determining if Judeo-Christian faiths are positively or negatively correlated with pro-environmental behavior and thought. This study sought to investigate this phenomenon by doing a media analysis of climate change discussed in the context of religion in major United States newspapers over the last ten years. These results were compared to in-depth interviews from members of the Seventh-day Adventist Church in Boulder, Colorado. I found that the media analysis and the interviews emphasized the belief that climate change is happening or is a threat. The majority of the interviewees (70%) believed that their faith had some impact on their views on climate change. In regard to action on climate change, the articles tended to emphasize collective action, while the interviews tended to focus on individual action. The interviews focused largely on the moral dimensions of climate change (stewardship and the notion of sin), while the articles mentioned the moral and ethical dimensions of climate change, but emphasized the political or scientific dimensions as well. These findings indicate that faith based climate change activism may be most successful if activists focus on concepts of stewardship and creation care, rather than on climate change directly. These concepts could be used to encourage emissions-reducing behaviors without raising counterproductive conflicts over political beliefs or how prominent or harmful climate change may be.

Chapter 1: Introduction

Religion can be a powerful influence on the worldview, values, attitudes, decisions, and behavior of people and societies both positively and negatively (Sponsel, 2007). What one person regards as sacred or spiritual is more likely to be valued and protected. For decades, environmental advocates and educators have emphasized Buddhist, Native American, and Taoist teachings to inform Americans about human relations to the natural world. However, the Judeo-Christian religions have often been ignored as a potential ally for environmental efforts until recently (Hitzhusen, 2007). This is partially because multiple studies have suggested that Judeo-Christian faiths have been correlated with a lack of concern about climate change (Truelove & Joireman, 2009; Eckberg & Blocker, 1989; Greeley, 1993; Schultz, Zelezny & Dalrymple, 2000). Although these studies will be explored, they have oversimplified the issue and contributed to the belief that environmentalism and religion are fundamentally at odds. Religious groups may have even more of an incentive and a sense of responsibility to take care of the earth than other non-religious groups. However, beliefs about the environment are complex, non-uniform, and dynamic. They vary across different religions, congregations, and individuals.

Climate change acceptance in particular has been non-uniform among the religious community and across different denominations. Within the Judeo-Christian community different denominations seem to have a broad range of responses to the idea of climate change. Some church leaders have responded strongly to the need to address climate change and advocate for environmental stewardship or the responsibility humans have to protect the earth, while others virtually ignore environmental concerns. The majority of churches are found between these two

extremes. In the United States, studies have found Evangelical Christians are most associated with being skeptical of climate research (Carr, Patterson, Yung & Spencer, 2012; Smith & Leiserowitz, 2013), while other sources have suggested that Evangelicals may be increasingly pushing for change (Banks, 2006; Mhlanga, 2000). The Seventh-day Adventists have been seen as increasingly concerned and proactive about climate change and environmental issues like it. The Adventists have released official statements on the dangers of climate change and have discussed ways to reduce the impact (“The Dangers of Climate Change”, 1995).

Although much research on the links between climate change acceptance and religious thought has been done with highly variable results, no study has focused on the Seventh-day Adventists. This study seeks to focus on the Adventists as a case study to explore: the general Judeo-Christian religious perspectives and suggested action on climate change, and how the Seventh-day Adventist congregation in Boulder compares to the general perspectives of Judeo-Christian faiths found in the United States' media.

The Adventists provide an instructive case study to investigate because stewardship is one of their twenty-eight fundamental beliefs and because of their promotion of a vegetarian diet. The congregation in Boulder is especially unique owing to its greater exposure to climate experts from the National Center for Atmospheric Research and their location in a predominantly environmentally aware and highly educated area. For the case study, twenty interviews were conducted with members of the Seventh-day Adventist Church in Boulder. This study also measured the amount and type of media attention on religious stewardship across five major news sources. Broadly, this research found that this coverage has been changing in recent years. The interviews and media analysis have been compared to highlight common themes and differences. This study is especially relevant due to the growing interest in initiatives in which

religious leaders are forming alliances—either across religious divides or between religious and scientific associations—to halt the damage humans are doing to the natural world, including its climate (Hulme, 2009).

Chapter 2: Background

Climate Change

Across the world, awareness about the changing climate is growing. This knowledge is due to the mounting evidence from more frequent and accurate observations, an improved understanding of the climate system response, and improved climate models. While the climate of the Earth naturally fluctuates every few thousand years, the current warming in the climate is unprecedented. Multiple major changes have been taking place as recently as the 1950s (“Human influence on climate clear”, 2013).

The warming climate means that the atmosphere and oceans’ temperatures are also increasing significantly, the amount of snow and ice has been diminishing, and the global mean sea level is rising. Climate change is primarily due to rising human-produced greenhouse gas emissions principally from burning fuels like coal for energy, high industrial agriculture and meat production, and emissions from cars. Without further commitment and action to reduce greenhouse gas emissions, the world is likely to warm by more than 3 °C above the preindustrial climate. Even with current mitigation efforts, there is a 20% likelihood of exceeding 4 °C by as early as 2100 (“Turn Down the Heat: Why a 4° C Warmer World Must be Avoided”, 2012).

This warming could have a major impact on worldwide ecosystems. Such warming could raise the sea level by 0.5-1 meters or more by 2100 (“Turn Down the Heat: Why a 4° C Warmer World Must be Avoided”, 2012). More frequent and longer heat waves could occur. Scientists predict that currently wet regions will receive more precipitation, with dry regions receiving less (“Human influence on climate clear”, 2013). By 2050, it is expected that drought-affected areas

will increase in size, while heavy precipitation events are likely to increase and pose potential flood risks (Rahm, 2010). With glacial and snow cover melting, areas with populations relying on these water sources will be significantly drier. Many species will face extinction from climate change or the disruptions that will stem from it. This includes ocean acidification, fires, flooding, drought, and the spread of certain insects (Rahm, 2010).

While climate change will impact all people across the globe, not every country will be affected in the same way and not every community will have the resources to minimize the harshest effects of climate change. Predominantly the poorest people of the world will experience the most devastating effects (Mastaler, 2011). This is due to the fact that many of these people live in low-lying areas and have far less resources and capital to deal with these growing problems. It is expected that millions of people will be flooded each year because of rising sea levels and increased precipitation. This is especially problematic in large cities in Asia and Africa that are densely populated and located in low-lying areas. These areas face extremely high risk (Rahm, 2010).

The changing climate could create food shortages and a growing disparity in the production of food between developed and developing countries, even with a high level of adaption in the agricultural center (Rosenzweig & Parry, 1994). Disease and illness are also potential major problems. In fact, the Intergovernmental Panel on Climate Change report from 2007 predicted some of the following under business as usual: In Africa, rain-fed agriculture could be reduced by up to 50% in some countries by 2020, severely compromising access to food and leaving 25 million to 250 million people vulnerable to increased water stress. In Asia, diarrheal disease associated with more intense flooding due to glacier melts in the Himalayas is predicted to increase along with the abundance and toxicity of cholera in South Asia (Mastaler,

2011).

Perhaps one of the most frightening aspects of climate change is that it is likely to result in wars over the ownership of basic necessities for survival. These wars could create large numbers of casualties dying for basic needs like food and water. It could produce many environmental refugees, creating large burdens on the countries to which they migrate. By mid-century some predict that droughts, food shortages, and flooding could result in 200 million environmental refugees (Rahm, 2010).

Climate change research has been extensive. A large amount of this information is easily accessible and is available to the public. Climate scientists overwhelmingly agree in the newest Intergovernmental Panel on Climate Change report (>95%) that climate change is happening and that human influence has been the dominant cause of the observed warming (“Human influence on climate clear”, 2013). Despite all of this evidence, skepticism is still fairly high in the United States and concrete action by the U.S. government has been limited. In order to slow or halt the harmful effects of climate change, people need to understand the issue and the risks that it poses.

Public Misunderstanding

Despite the large volume of evidence and widespread scientific consensus across the world, public skepticism of human caused climate change in the United States is fairly high. According to a study done by Yale University’s Climate Change Communication, American’s belief in the reality of global warming has increased by 13 percentage points, from 57% in January 2010 to 70% in September 2012 (Leiserowitz, Maibach, Roser-Renouf, Feinberg & Howe, 2012). Despite the growing acceptance of climate change occurrence, only 54% believe

that the current change is caused by human activities. This study also found that only 12% of those polled didn't believe that the climate was warming at all (Leiserowitz et al., 2012). A separate survey done in 2010 concerning the public opinion on climate change found more climate skepticism. The study found that only 13% of respondents were alarmed and eager to take action on the issue of climate change, 28% were concerned, 24% cautious, and 34% were disengaged, doubtful or dismissive (Cooney, 2010).

There are a multitude of reasons why people may disagree about climate change including disagreements about science, differences in values, beliefs and risk calculation, and inaccurate or biased media attention given to the issue. Many people don't take the time to read scientific reports or have difficulty interpreting them. The concepts can seem vague, confusing, and overwhelming. People often need to be able to see a direct cause and effect relationship in order to perceive risk. An act of terrorism for example is salient and dramatic and therefore causes people to fear such an event will occur, despite a low actual risk. Climate change occurrence may not seem like an obvious threat because people are far removed from the major changes taking place. They cannot see the physical melting in the arctic regions where the warming climate is currently having the greatest impact. A study on American risk perceptions by Leiserowitz found that most Americans believe that climate change poses only a moderate risk that will "predominantly impact geographically and temporally distinct peoples and places" (Leiserowitz, 2005, p. 1433). The study also acknowledged several distinct and smaller communities, including naysayers and alarmists, which have widely deviating perceptions of climate change risks.

Taking responsibility and holding countries accountable is necessary in order to create fair proposals for responding to climate change. This is often difficult because people do not

want to accept the blame. Since climate change does not have one identifiable enemy and is a global problem involving billions of people, it could be hard for people to conceptualize the scale of the situation. Therefore, individuals may deny any personal responsibility for contributing to greenhouse gas emissions. They may not want to see the connections between their everyday life and extreme weather events and food shortages that are likely to grow around the globe.

The general distrust of climate science has and is currently encouraged by corporations and political interests that opposed any government interference with the economy (“The Discovery of Global Warming”, 2010). This is often due to personal interests and the desire to make as much profit as possible with little government regulations and restrictions on how much they can pollute.

The greed of rich corporate leaders is also unquestioned by mainstream economic thought. In economics, value is weighed more heavily in favor of current maximization of human welfare, while the welfare of future unborn generations is discounted. On the basis of these assumptions it makes economic sense to invest massively in physical and human capital now and leave future issues like climate change for later generations to deal with (Hulme, 2009, p. 133). Another problematic aspect of contemporary economic thought is that value must be measured in monetary terms. Climate change has a multitude of incredible losses that are not valued in such terms. Things like coral reef decline, the increased chance of catastrophic climatic events, and a reduction in biodiversity do not currently have an economic value. Economists have tried to put an economic value on these environmental losses with a report called the *Stern Review*, but it has not gained too much application in real life economic decisions. Although it is a good idea and a way to motivate others on economic grounds, these economists often have to make great assumptions about the associated monetary losses of environmental services (Hulme, 2009, p.

134).

Along with mainstream economic thought, the media spreads climate change skepticism. One study questioning why individuals are convinced that climate change is not occurring, notes that a potential source of this skepticism regarding climate science may be the considerable media attention given to a series of emails, leaked in early 2009, from climate scientists that suggested possible manipulation of data and efforts to overstate some of the evidence. This instance overlapped controversies surrounding some climate data analysis in prominent United Nations reports (Lachapelle et al., 2012). These events made people believe that the scientists were exaggerating data or were not consistent in their findings.

The Notion of Religious Contrarianism

In earlier decades, several scholars, especially Lynn White (1967), characterized Western Judeo-Christianity as being fundamentally exploitative of the nature world. White argued that the command given in Genesis 1, for man to have “dominion” over the environment, legitimated and even demanded environmental exploitation. Nature became “disenchanted,” making it meaningful only in terms of its usefulness to people. Therefore, he argues that the development of science and technology and the destruction of nature is a Christian feature. Scholars in more recent years have taken this idea and attempted to test it. Several studies have found that Judeo-Christian followers are associated with being especially skeptical of climate change and with having less concern for the environment than other faiths or nonreligious people. One reason that has been proposed is that the Bible treats humans as radically distinct from everything else in nature; therefore, nature is regarded as subordinate to the interests, preference, or needs of

human beings (Crosby, 2013). One study measuring the environmental behavior among students at a private Christian university in the northwestern USA found that Christian orthodoxy and environmental behavior were negatively related (Truelove & Joireman, 2009). The results showed that interest in Christianity had an inverse correlation to environmental concern. Another study testing Lynn White's study "The historical roots of our ecological crisis," found that those with a more fundamentalist, literal interpretation of the Bible predicated a lack of environmental concern (Eckberg & Blocker, 1989). This survey suggests that those who consider themselves to be religious, but have less literal views, may show more environmental concern. Additional studies support this theory (Greeley, 1993; Hand & Van Liere, 1984; Schultz et al., 2000).

This skepticism could be due to some of the links seen between climate change and the End Times. This view was well illustrated when a debate with a Lutheran Church bishop was featured in an article in the Danish newspaper, *Kristeligt Dagblad*. The bishop declared that he saw a connection between climate change and the Day of Judgment. To the bishop, the melting glaciers and out of control flooding are vivid signs of the impending disaster. According to the New Testament, the Day of Judgment will be preceded by heavy storms and floods. The bishop was immediately rebuked by a number of theologians who pointed out that the climate change seen today is, at least partially, triggered by human activity, while the Day of Judgment is act of God (Wolf & Gjerris, 2009). This idea has also been circulating within the United States among the conservative Christian movement. The significance of this belief is that if an ecological disaster is occurring, then one should focus on spreading the Christian message even faster than before, as time is scarce. This view encourages taking no action on climate change because the end is near anyways (Wolf & Gjerris, 2009). A study testing why government action on global warming is weak relative to what existing theories predict, found that believers in Christian end-

times theology are less likely to support policies designed to curb global warming than are other Americans (Barker & Bearce, 2013).

Although this view can be found with the United States, views about action on climate change and skepticism on the subject seems to vary across denominations. Catholics and most mainline Protestant denominations support taking action to address climate change but many Protestant Evangelicals are split on their views. Many evangelicals join other advocates of climate action by promoting what they call “Creation Care”. This represents the notion of caring for the earth as a responsibility to God. Others allied themselves with the opponents of climate change action. These groups often echo political claims made usually by Republicans that the scientific evidence is not compelling enough to justify costly programs. These positions are frequently anchored in Dominion and End Times theology. They argued that focusing on climate change would take the focus away from other more important moral issues like the opposition to abortion and gay marriage (Rahm, 2010).

Several studies support the idea that evangelical Christians tend to be the most skeptical of climate change (Carr et al., 2012; Smith & Leiserowitz, 2013). One studied involved interviewing 36 people from the church. The subjects were asked if they believed that climate change was happening and if it was anthropogenic or primarily human caused. The vast majority of responders were in the middle about the issue. Twelve responded that climate change was happening, but it was part of a natural cycle, while fourteen others stated that climate change was most likely linked to human behavior, but the relationship was unclear. When asked how the Bible played into their views about climate change, one pastor stated that he believed scientific information only to be legitimate when it supported Bible narratives, and others mentioned that

the fact that the Bible was silent on the issue, leading them to believe that it should not be a concern (Carr et al., 2012).

Another common belief is that the weather and climate are beyond the reach and influence of human behavior. Weather events, especially extreme ones, are known as “acts of God” (Hulme, 2009, p. 156). Donner reports a survey of Americans following hurricane Katrina in August 2005. The survey found that 23% of people believed that the hurricane was an act of God, as opposed to the 39% who believed that it was related to climactic change (Donnor, 2007).

Although it is important to keep these studies in mind, these studies have oversimplified the issue and contributed to the belief that environmentalism and religion are fundamentally at odds. However, beliefs about the environment are much more complex and dynamic than these studies have shown. They vary across different religions, congregations, and individuals. These studies also tend to ignore the growing number of initiatives in the religious community to combat climate change and increase environmental education and stewardship.

An Opportunity for Religion

Despite this notion that Judeo-Christian religions seem to be especially doubtful of climate change, many faith groups have been increasingly pushing for action and change. The religious community may have more incentive to take action on climate change than other non-religious and non-environmental groups. Several environmental scholars (e.g. Haluza-Delay, 2000; Hoffman & Sandelands, 2005), religious scholars (e.g. Kearns, 1996; Wallace, 2008), and religious leaders (e.g., Beisner, 1997; Harper & Kennealy, 2009), would agree. They argue that “care for the environment is consistent with, if not demanded by, Christian values” (Clements,

McCright & Xiao, 2013). This is because religious groups tend to see themselves as having a responsibility to address moral issues and an extensive history of doing so. Religions are largely based on moral responsibility. The Judeo-Christian perspective is one of creation in which “nature and the universe are just the result of natural laws and chance events. They are the result of a divine will” (Wolf & Gjerris, 2009, p. 121). Pope John Paul II, in his address at the Vatican on World Peace Day in 1990 stated clearly the moral responsibility of each person in relation to their environmental footprint: “There is an order in the universe which must be respected, and the human person, endowed with the capability of choosing freely, has a grave responsibility to preserve this order for the well-being of future generations. I wish to repeat that the ecological crisis is a moral issue” (Hulme, 2009, p. 158).

Climate change will heavily impact people in less developed countries that tend to live in more vulnerable places and tend to not have the adaptive capacity to recover from climactic events (Mastaler, 2011). Religious organizations often tend to the poor and vulnerable, and therefore it is reasonable to hypothesize that they may be very willing to take up the issue of climate change, which many argue is the paramount ethical issue of our time (Globus Veidman, 2012). Religious organizations often have different approaches and motives but tend to share the belief that humans must live with less of an impact on the Earth and agree that there is a moral imperative to protect all life on Earth (Hulme, 2009). This does not mean that all these groups feel the same responsibility to take action fighting climate change, although there is a general consensus among them that it is the right thing to do. Although many faith groups feel a responsibility bestowed on them by God to care for the created world, each individual person believes different things about their “duty to others, to Nature, and to deities” (Hulme, 2009, p. 144).

The initiatives taken on environmental education and action that were once delivered mainly by strictly secular groups have now taken hold in faith communities. In 2009, the Catholic Coalition on Climate Change announced a St. Francis Pledge to Protect Creation and the Poor, otherwise known as the Catholic Climate Covenant. This initial coalition spread to churches across the United States. A climate change education day was hosted in which adult representatives from over sixty parishes came out to spend the day praying, worshipping, learning about climate science and ethics, and planning ways to respond to climate change (Hitzhusen, 2012).

A growing number of interdenominational and community engagement initiatives have also been established. One of the most significant of these initiatives is one taken up by the United Nations. The UN Development Programme (UNDP) and the Alliance of Religions and Conservation (ARC), which is a secular organization that helps big world religions develop their own environmental programs based on their core doctrines and principles, will be heading the initiative. It will involve a seven-year action plan that began in 2009. The program involves incorporating major traditions from eleven of the major world religions: Baha'ism, Buddhism, Christianity, Hinduism, Islam, Jainism, Judaism, Shinto, Sikhism, and Taoism (Wolf & Gjerris, 2009). During the start of this program in November 2009, the UN Sponsored an event called "Many Heavens, One Earth: Faith Commitments for a Living Planet" at Windsor Castle. World leaders from 9 of the major religions met to discuss action on climate change (Fenton, n.d.). This UN and faith partnership acknowledges and works on the ethics and values side of the issue in order to incorporate and inspire action on the issue of climate change

The UN has cited numerous practical and theoretical reasons for collaborating with major faith groups. One of the practical reasons is that religious organizations are major landowners.

They own more than seven percent of the habitable land surface of the planet. Faith groups are major providers of healthcare and education worldwide, and have a vast outreach. The UN also outlined their theoretical reasons. Under the heading, “Myth, metaphor and memory,” it states: “The emphasis on consumption, economics and policy usually fails to engage people at any deep level because it does not address the narrative, the mythological, the metaphorical or the existence of memories of past disasters and the ways out....The “climate change activist” world and indeed the environmental world has all too often sought refuge in random use of apocalyptic imagery without seeking to harness the power of narrative. Without narrative, few people are ever moved to change or adapt. The faiths have been masters of this for centuries” (“UN and ARC launch programme with faiths on climate change”, 2007).

Another important initiative by religious groups is the National Religious Partnership for the Environment, which was founded in 1992. The NRPE includes the National Council of Churches (NCC), the Coalition of the Environment and Jewish Life, and the United State Catholic Conference of Bishops Eco-Justice Project. These umbrella organizations include the NCC’s thirty-seven prominent Protestant denominations, the full range of Orthodox, Reform, and Reconstructionist Jewish communities, all U.S. Roman Catholic parishes, and a range of Evangelical church groups. This growth has also spurred greater official policy statements from larger dominations relating to environmental concerns (Hitzhusen, 2012).

Religious organizations could have a massive impact, as an estimated 84% of the world’s population identifies with one of the major world religions (Globus Veidman, 2012). Religious institutions also collectively are the third largest category of investors in the world (“World religions pledge concrete action on climate change”, n.d.). Within the United States alone, Christianity comprises the largest faith group with 78.4% of the population (Pew Forum on

Religion and Public Life, 2008). This represents a huge group that could aid the climate change effort in the United States. They could use their money in order to invest in green energy like wind and solar, or to support lobbying campaigns to effect policy changes in the federal government. They are also potentially well positioned because they have a broad audience of believers, who mostly accept and respect their moral authority and leadership. These groups have the ability to provide social capital. In other words they are good at fostering relationships in communities to achieve collective goals (e.g. Smidt, 2003; Swart, 2006). Religious institutions could mobilize millions of people to take up the issue of climate change and change their worldviews with “significant economic, institutional, and political resources at their disposal” (Globus Veidman, 2012, p.259).

In this way religions could become a platform for environment stewardship, education, and action on a wide variety of issues including climate change. The problem of climate change could be presented in a way that coincides with existing value statements within a particular faith community. For example, action on climate change could be promoted as a way to speak to particular religious values. Most religious traditions are very clear that contentment and human well-being is found in non-material values rather than through material consumption (Hulme, 2009). Some examples include the roles of stewardship, eco-justice, and creation spirituality: “Stewardship promotes a sense of responsibility owed with respect to God’s creation; eco-justice synergizes with traditional concerns for social justice; creation spirituality acknowledges diverse spiritual dimensions of environmental concern and care, often resonant with prayer, healing, Sabbath, and contemplative practices associated with the natural world” (Hitzhusen, 2012, p. 38).

Central to the ethical and moral approach to climate change is the question of to what extent actions taken should be personal or through collective action of governments, public and civil organizations. Churches could represent both of these strategies. Church congregations could encourage and teach individual actions and lessons of stewardship from the Bible. This may result in personal actions by congregation such as recycling more, carpooling, planting a garden, or eating less meat. Churches could also represent a force of collective action by forming committees, signing petitions, and volunteering to reduce climate change.

The Seventh-day Adventists

The Seventh-day Adventists were chosen to be the primary case study due to their greater overlap with environmental values and actions. The Adventists are a Protestant Christian denomination that is based on the adherence to twenty-eight fundamental beliefs. One of these twenty-eight beliefs is that of Stewardship. On an official statement on the Seventh-day Adventist website they state: “We are God’s stewards, entrusted by Him with time and opportunities, abilities and possessions, and the blessings of the earth and its resources. We are responsible to Him for their proper use...Stewardship is a privilege given to us by God for nurture in love and the victory over selfishness and covetousness. The steward rejoices in the blessings that come to others as a result of his faithfulness” (“28 Fundamental Beliefs”, n.d.).

Another main Seventh-day Adventist teaching is one of creationism. Creationism relates directly to the notion of stewardship. As this Official Adventist statement proclaims “God has placed the earth and its creatures in our care. This has often been interpreted as a right to exploit nature for personal gain. In the prophecies of Revelation, we see that at the end of time, the Lord

will hold us accountable. Environmental concerns are therefore a fundamental part of any holistic stewardship message” (“Stewardship of the Environment”, n.d.). While creationism and stewardship are connected, these two messages show the complexity that exists navigating between religion and science. Creationism is defined as the belief in a God who is the absolute creator of the heaven and earth, out of nothing, by an act of free will (Ruse, 2008). The acceptance that God created all of nature and willed us to be responsible for it, gives people a mandate to care about environmental issues. In this way, creationism may encourage stewardship values that coincide with scientific evidence like reducing climate change. At the same time the creationist’s belief that God created the world is in direct opposition with scientific evidence. This exemplifies how the distinctions between science and religion are not always as clear and concrete as modern thought would depict them.

The responsibility of being God’s stewards of the Earth translates into the Seventh-day Adventists motivation for addressing climate change. In their official statement on the dangers of climate change they acknowledge that climate change is primarily caused by industrialized countries, while the main victims are the “small island states and low-lying coastal countries” which tend to be less developed (“The Dangers of Climate Change”, 1995).

The Adventists also significantly contribute to reductions in greenhouse gas emissions through their dietary choices. About 50% of Seventh-day Adventist members adhere to a somewhat vegetarian lifestyle. 3% are strict vegans, 27% are lacto-ovo-vegetarians, and 20% eat meat less than once a week (Binkley & Jensen, 2004). The Seventh-day Adventist vegetarian diet has been associated with decreases in water, energy, pesticide, and fertilizer use (Marlow, Hayes, Soret, Carter, Schwab & Sabaté, 2009). Adherence to a vegetarian diet has been shown to lower carbon emissions significantly. One study found that the average American consuming a mixed

diet with the mean caloric content and composition caused 1485 kg of CO₂ more than consuming the same number of calories from plant sources (Eshel & Martin, 2006).

Chapter 3: Methods

This project is a quantitative and qualitative study about how Judeo-Christian religions influence perceptions of climate change. This includes a media analysis of major U.S. newspapers and interviews of members of the Seventh-day Adventist congregation in Boulder. The media analysis is a qualitative and quantitative content analysis of five major news sources including the Washington Post, the Wall Street Journal, USA Today, the New York Times, and the Los Angeles Times. The five newspapers were chosen based on data used for a previous tracking scheme following U.S. newspaper coverage of climate change or global warming (Boykoff & Nacu-Schmidt, 2013). The articles chosen for the study were found by searching in Nexis UK. The Boolean string used was ‘climate change OR global warming AND religion’. Each of these terms was set to “major mentions.” The newswires section was disabled and the duplicate options section was set to high similarity. Setting the duplicate options section to high similarity specified to the search engine that documents had to be nearly identical in order for the service to include them in the same group of similar documents. The frequency and the manner in which religion was discussed was measured in these news sources by a coding template. The coding template had a set of ten criteria. After an article was read, I looked for and recorded the presence or absence of each of these criteria. The coding template used was based on a previous study. This template was tested for reliability by achieving a Krippendorff’s Alpha above .8. The coding template used is shown in Appendix C.

The time period analyzed was from January 1, 2004 to December 31st, 2013. Searching for all of the articles in the past ten years yielded a large amount of articles with irrelevant information. In order to get a manageable amount of relevant articles to analyze, the article

searches were broken down into separate series of years. The searches were separated into three groups, 2004-2006, 2007-2009, 2010-2013. The overall time period allowed me to view any broad changes in media coverage over the last ten years. It also helped me determine whether there was a change after November 2009. This date is significant because it marked emergence in the public arena of religions working for environmental stewardship, with the UN Sponsored “Many Heavens, One Earth: Faith Commitments for a Living Planet” at Windsor Castle. World leaders from 9 major religions met to discuss action on climate change (Fenton, n.d.). I predicted that there would be an increase in media coverage after this event.

Religious opinions about climate change and the role of the Adventists as leaders in incorporating environmental issues were recorded by interviewing twenty members of the Seventh-day Adventist’s Church in Boulder. I chose to do a case study on the Seventh-day Adventists due to their knowledge and interest in environmental stewardship. The Adventists also have not been studied in this context. The Seventh-day Adventist congregation in Boulder is especially interesting due to the close proximity and greater exposure to climate experts from the National Center for Atmospheric Research. The church has featured a discussion with climate experts and church officials to involve the congregation in the issue of climate change. The church’s location in Boulder, which is a predominantly well-educated and environmentally aware city, also presents a possible influence.

The interview portion of my research was community-based and participatory. I found subjects through announcements that were given at church services with the help of Jonathan Vigh. Jonathon works at the National Center for Atmospheric Research and is also a prominent figure and Elder at the church. I attended a church service on a Saturday Sabbath and made an announcement in front congregation at the beginning of the service. After the service I passed

out a sign-up sheet to recruit people who were interested in participating in the interviews at a lunch potluck.

The interviews were conducted at the subject's home or at a location of their choosing. If a subject lived far away, as many of people in the church do, the interview was conducted by phone. Each interview involved asking the subject eleven open-ended questions pertaining to their views on climate change relating to their religious beliefs (see Appendix A). Having a set of interview questions provided a systematic comparison across the sample, while also allowing each interview to follow its own trajectory. All of the interviews were anonymous. Although two interviews were conducted over the phone, most were recorded on my computer with an attached AC-404 microphone. This facilitated transcribing the interviews later. If a subject did not wish to answer a specific question, they were not required to. The interviews took place between 11/7/2013 to 1/31/2014. After the interviews were recorded, I transcribed each interview. I then sorted and recorded the general characteristics and findings of the interviews. The results section includes a general discussion of my findings, while highlighting interesting quotes and viewpoints that individual subjects had.

Chapter 4: Results

While the media analysis and the individual interviews emphasized different aspects of the topic, I found that Judeo-Christian religion is correlated with environmental thought. Both the media analysis and the interviews emphasized the belief that climate change is happening or is a threat. The articles tended to emphasize collective action, while the interviews tended to focus on individual action. The interviews also focused more on the notion of stewardship. While the articles also brought up stewardship and the moral and ethical dimensions of climate change, they emphasized more of the political or scientific dimensions as well.

Quantitative and Qualitative Scholarly Analysis

This quantitative and qualitative scholarly analysis serves as a good way to document various aspects of the changes and growth of religious initiatives on climate change. It also provides a means in which to compare what is discussed in the media to the individual interviews. In total, 44 articles were coded. Of the five newspapers, most of the articles were concentrated in the New York Times with 22 total, and the Washington Post with 14 total. Over the last ten years (since January 1, 2004), the total number of articles discussing climate change in the context of religion rose and peaked around 2006 and then somewhat declined with minor rises again in 2010 and 2013 (see Figure 1). No articles were found during 2012.

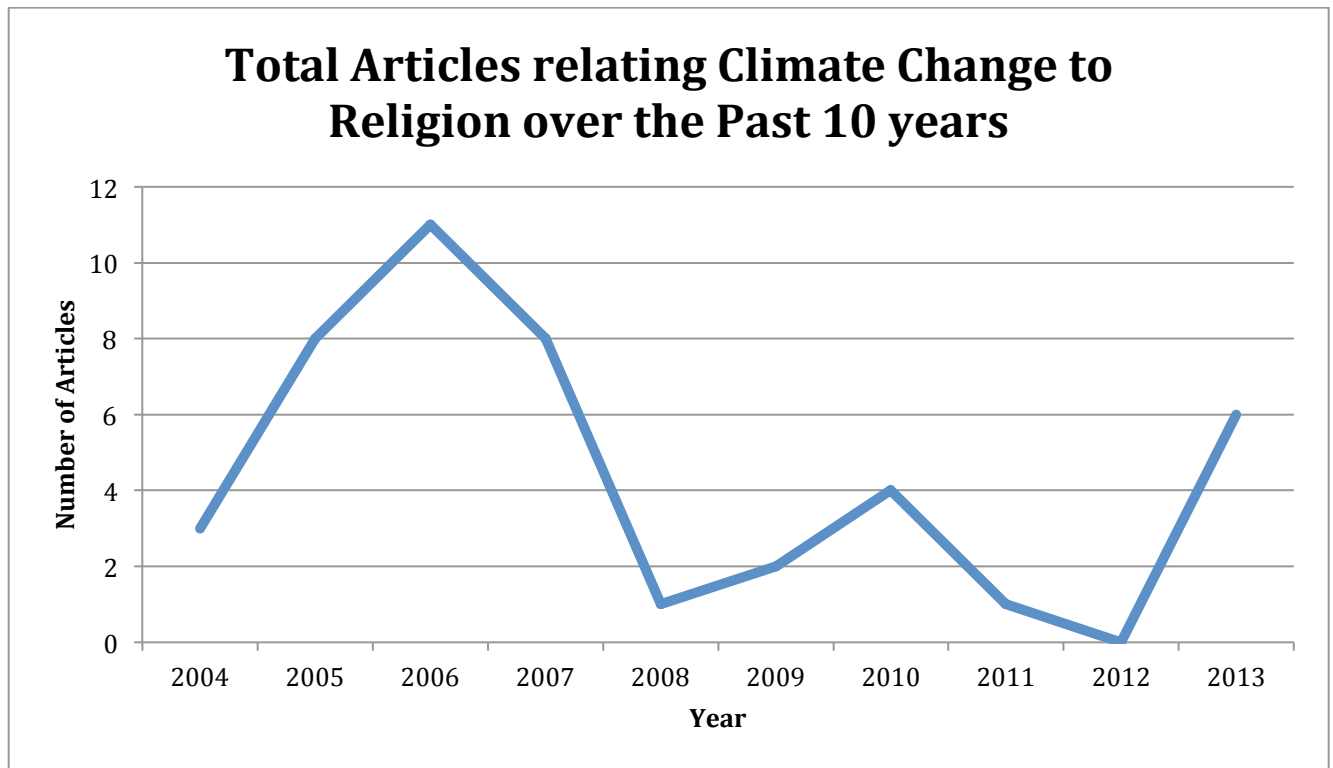


Figure 1.

The presence or absence of content in the articles is presented in Table 1. Of the 44 total articles, the majority (33) of them had some discussion of action on climate change. 25 had a mention that climate change was attributed to human actions. Climate change is mentioned as happening or as a threat in all of the articles, but only 14 mentioned the possibility of climate change not happening or not being a threat. Half of the articles mentioned some type of moral or ethical dimension of climate change, but only 13 mentioned the notion of stewardship explicitly. Besides the moral dimensions, the articles also brought up many of the scientific and policy dimensions of the topic as well. 23 articles mentioned a scientific dimension, and 25 mentioned a political dimension of climate change. In regards to action on climate change, collective action was emphasized more in the articles than individual action. Out of the 33 articles that discussed action, 26 mentioned collective action, while only 7 mentioned individual action.

Table 1.

Nature of material presented	Present	Absent
1. Discussion of action on climate change	33	11
2. Mention of climate change attribution to human actions	25	19
3. Climate change is mentioned as happening, or a threat	44	0
4. Climate change mentioned as not happening, or not a threat	14	30
5. Mention of stewardship	13	31
6. Mention of the moral and ethical dimension	22	22
7. Mention of the scientific dimension	23	21
8. Mention of the political and/or policy dimensions	25	19
9. Mention of individual action	7	37
10. Mention of collective action	26	18

Case Study: The Seventh-day Adventists

Of the 20 interviewees, 14 (70%) affirmed that their faith had some impact on their views on climate change to varying degrees. Of the interviewees that did think that their religious beliefs influenced their position on climate change, several brought up the influence of sin on the world and the concept of stewardship. Although these participants described these two beliefs as influential, the interpretations are highly variable. While these two beliefs are related, they have been separated in the discussion below for ease of presentation and to demonstrate distinct characteristics of each belief that have informed climate change perceptions. Interview excerpts are provided to allow readers to observe participants views in their own words.

Sources of Information

Half of the interviewees were asked which sources of information they had consulted about climate change. A wide range of sources were listed included Environmental Studies classes taken at the University of Colorado, documentaries, seminars at the National Center for Atmospheric Research (NCAR), personal observations, scientific journals and sources, major media sources, the Bible, and by word of mouth. Several of these sources including the University of Colorado and NCAR highlight how Boulder represents a unique location given its proximity to large centers of climate change expertise.

One interviewee mentioned looking at information on paleoclimate topics. He described paleoclimate as something that: “allows you to look in the past and see how specific events like volcanoes, for instance, affected climate.” He even related paleoclimatology to his faith:

“The Bible mentions several very specific things like there was a 7-year drought in Egypt and the Middle East that was really devastating back in the time of Joseph, for instance”

(Anonymous 14).

Perceptions of Climate Change

All interviewees were asked to discuss whether they thought climate change was occurring and, if so, whether changes were attributable to human actions. Of the 20 Seventh-day Adventists interviewed, 19 answered that they believed climate change was happening, and 1 argued that it was not happening. Of the people who agreed that climate change was happening, several reasons were cited: physical changes seen in the weather and natural environment, the growing amount of pollution and greenhouse gases that are being emitted by humans into the atmosphere, biblical messages, from watching documentaries and popular news sources, and from learning the scientific evidence. When asked if humans were causing climate change, 15 answered the humans represented the majority of the cause, 3 said that humans were a likely factor, 1 was unsure, and 1 said no.

One woman explained how when she was living in Mexico her grandma used to say that the climate was different. She explained that when her family was expecting rains, they didn't come” (Anonymous 2). One said he could “tell a difference between winters when I was a kid verses winters now” (Anonymous 6). Another explained that the reason the planet's climate was changing was due to personal attitudes. He explained that “people don't care anymore and we become in a state of all about us, self-gratification, and using whatever resources we can and not caring about sustaining the place that we live in” (Anonymous 13). The one person who

disagreed that climate change was happening stated that the weather had not been changing enough to make that case. Ironically, physical changes seen in the weather was the most cited reason people gave for explaining why they believed climate change was happening.

When asked about why people may be resistant to the idea of climate change the answers varied wildly. 17 people responded to the question and 3 people were unsure. The interviews brought up that personal views, beliefs, and background may influence people's views on climate change. Some pointed out that people may not want to admit that climate change is happening or take responsibility, people may not understand the facts or easily visualize the future effects of climate change, people may consider everything as normal, have different religious reasons, political reasons, or a distrust of the scientific community.

Several of the interviewees brought to attention that some resistance could be due to climate change being a highly politicized topic with skewed media attention. One person highlighted this phenomenon. He said "for example there are maybe a thousand scientists who all agree that climate change is going on and its anthropogenic and you have maybe two scientists that for whatever reason think this is all crap" (Anonymous 1). He went on to explain that the media tries to portray these two sides equally even though one side has considerably more weight. This leads to the public being confused about the issue, especially because most of the public does not have a good understanding of the science.

One person thought that the resistance to climate change ultimately came down to money. He explained that many gained from the current policies that allow companies to pollute without many consequences, stating that "there is a vested interest in doing things a certain way" (Anonymous 11). Another emphasized that climate change has become a highly partisan issue. This makes it hard for action to take place because of ideology and the belief that action on

climate change is too costly. One person stated that she changed her political affiliation in part because of those kinds of issues.

Religious beliefs influencing thought on Climate Change

When asked if religious beliefs influenced the interviewee's views on climate change, 6 said that they did not see a connection between the two, 5 cited the influence of sin on the world and people no longer following God's requirements as a reason for climate change, and 9 people brought up the notion of stewardship. The following are several explanations and excerpts on the topic:

One woman said her beliefs did influence her view "but subtly because I think that we are stewards of the Earth . . . We are supposed to care of it and obviously we haven't. We've polluted rivers and the air and thrown trash all over the place as if we didn't care about the earth" (Anonymous 20).

One discussed how the church has influenced his view saying, "The Adventist church believes in taking care of the Earth and seeing that God really did all of this. That it's our role to take care of what He gave us, which was a beautiful world. And we have consistently, time over time, done everything we can to ruin it" (Anonymous 9).

Another person said, "I think we are commanded to be as respectful of the Earth as we are of ourselves and our other inhabitants" (Anonymous 10).

Another interviewee stated, “I believe in sin. I believe that this Earth was created perfect. This Earth came perfect from God’s hands but when we, human beings, decide to do our own things according to our own ways, things started to change” (Anonymous 2). This person also pointed to Genesis saying that when God promised the land to Israel, it was a land that produced honey and milk. The landscape now is deserted, and is very arid. To her the introduction of sin caused many of the problems that we see today.

One man said climate change was separate from religion for him. But he has heard a lot of people in the church who have said “we are too focused on climate change, Jesus is coming soon anyway.” Although he did not share that view, he believed like many others that as a good Christian we should care about the climate we are living in. He stated that reducing the impacts of climate change is “A responsibility that is hard to deny because in my beliefs, when we are created God kind of put us in charge of not only the animals but the whole earth. We would be stewards and we would keep it” (Anonymous 3). He felt it was his duty to strive for as a Christian, to care for the planet. For him, the climate was not excluded from that duty. Religion is an incentive to be more aware of these issues and to try to do better. He pointed out that practically it is hard to accomplish but that we should be concerned of these issues.

When asked if people saw a link between creationism and climate change 13 said yes, 3 said no, and 4 said maybe. One explained the link clearly for them, “based on the way that the Earth was created, the world was never supposed to see a time like this. It wasn’t designed to be like this but based on our decisions we’ve made it like this.” “He wants everyone to see what departing from Him results in, which is chaos and destruction” (Anonymous 11).

Interestingly, the one subject who did not believe climate change was occurring, tended to agree with this viewpoint on some level. He said, “I think people should try and take care of things.” “Personally I think we are coming to last day events towards the end of time and that may be part of why stuff seems to be becoming more radical” (Anonymous 8). So although he did not agree that climate change was occurring, he did pick up on several notions that other members of the congregation discussed in their interviews.

One subject pointed out that creationism or how people view how humanity has gotten to their current point in time will influence how people should treat the problem. He explains that, “if we think that the Earth was here just by accident or just evolved over a long period of time and its just gone through all these upheavals...you might take the view that well this is just another one of these things that happen, we’ll get over it eventually. Like maybe humans will go extinct but the Earth will probably have a way of repairing itself. But if you view the fact that God handed down this Earth to us and it was basically perfect and that we came along and trashed it through the results of sin, and selfishness, and greed and all this stuff, then it kind of gives you a different view” (Anonymous 14). He went on to suggest that maybe if you believe in creationism you will see that we should not be operating as business as usual and need to take care of and perhaps restore the earth. Another interviewee also shared this sentiment that Christians would have more of an incentive to take action on climate change. He said, “I would hope that Christians are more environmentally concerned then atheists” (Anonymous 1).

The interviewees were asked if humans were not present on the planet, would the climate change more, less, or the same amount as it currently does? 11 people said the climate would change less, 3 said it would stay about the same, and 6 people said that they were not sure how the climate would change but it would be different than at present. Most people claimed that the

climate would change less if humans were not present due to humanities sizeable impact. One woman summarized this sentiment by saying, “we have great technology, we invented cars, we have big factories, and we have a lot of great things, but on the other side they are affecting everything. There is a chain between every life on the earth” (Anonymous 2).

The Role of the Seventh-day Adventist Church

When asked about the role Seventh-day Adventists should play in fostering engagement with climate change and environmental stewardship, the general consensus was that the Adventists were doing this on some level. Many agree that while the church tries to stay out of certain issues in a political sense, the Seventh-day Adventist church generally encourages the idea of stewardship to its members. It does this by encouraging individual behavioral changes.

One woman explained that the Adventists try to stay out of political issues because they want to avoid controversy. Like on the topic of abortion, they haven’t taken a strong stance, just have a general statement. “But I think that we should more strongly promote this idea of stewardship because I think it is important. It’s the idea that’s important not the politics” (Anonymous 15).

Overall 13 generally or somewhat thought the church was playing a role, 2 said no, and 5 were unsure. Many who were unsure or thought that the church did not take much action said that they saw potential or thought that it was important for the church to take more action on this issue. Several people also brought up the notion that the Seventh-day Adventist congregation in Boulder may be especially environmentally conscious and have a highly educated congregation; therefore it was hard for them to speculate on the entire church organization as a whole.

Some of the teachings that the church encourages were highlighted in the interviews including general teachings and indirect actions that actually have a large impact on the planet. The most prominent of these indirect actions is the churches encouragement of vegetarianism and healthy living. One of the interviewees pointed out the impact of this lesson, “they do teach vegetarianism and veganism as being a proper way to live and from what I’ve learned that if we consume less animals and we need to feed less animals to consume, we can feed a lot more people” (Anonymous 11). Another suggested that the church teaches members to “be compassionate to wherever you are living. Want to be treated nicely by your fellow humans? You treat them nicely. Same to plants and animals, don’t torture them” (Anonymous 1).

When interviewees were asked if they saw the Seventh-day Adventists as being leaders in environmental stewardship, most said that they did not see them as leaders. Overall, 1 said yes, 3 said somewhat, 14 said no, and 2 were unsure. Most said that the church has done a little on the topic of climate change, but has not been very radical in its ideas. According to the interviewees, the action the church has taken on climate change is mostly by encouraging positive environment actions (such as vegetarianism and stewardship) on an individual level. Climate change in the context of creationism was featured in a Seventh-day Adventist article so it has risen to level of consciousness within the church, but not a lot of action has happened.

When asked if interviewees thought that the incorporation of environmental stewardship in a congregation in Boulder would be transferable and successful in other places around the country, the majority said that it was a possibility. Overall 12 said yes, 6 were unsure, and 2 said no. The following are several explanations and excerpts on the topic:

“The problem is that if you really want to get something out within the church, it needs to be really founded in belief systems” (Anonymous 1). He found stewardship to be secondary and not something that is focused on. The emphasis in the church is more about humans, not about the environment or human-environment interactions. He suggested that if you connected some of these issues to the end times, then it would encourage action, but that currently no one has attempted that. Action on climate change has been left for people to participate in their private lives.

One said it is “not going to be the easiest thing” but he could see people open to the idea. Stewardship is well accepted in some other communities. The Boulder church is very exceptional because they talk not just about spiritual things but how you can be better citizens. This includes “how to take care of your environment, wherever you go and wherever you are” (Anonymous 2).

Chapter 5: Conclusion

This study provides evidence about how the Seventh-day Adventist religious beliefs contribute to perceptions of climate change. I found that the majority of the interviewees (70%) believed that their faith had some impact on their views on climate change to varying degrees. This study shows that Judeo-Christian religions can indeed be correlated with environmental thought, agreeing with previous studies (Haluza-Delay, 2000; Hoffman & Sandelands, 2005; Kearns, 1996; Wallace, 2008; Beisner, 1997; Harper & Kennealy, 2009).

The general finding from the media analysis and the interviews is that Judeo-Christian ideology is correlated with environmental thought. Both the media analysis and the interviews emphasized the belief that climate change is happening or is a threat. The articles tended to emphasize collective action, while the interviews tended to focus on individual action. The interviews also focused more on the ethical dimensions of the issues (stewardship and the influence of sin). While the articles also brought up stewardship and the moral and ethical dimensions of climate change, they emphasized more of the political or scientific dimensions as well.

My hypothesis that there would be an increase in coverage of the topic of religious action on climate change after the United Nation's Sponsored "Many Heavens, One Earth: Faith Commitments for a Living Planet" at Windsor Castle was inconclusive. While the topic seemed to peak around 2006, there were minor rises in media coverage in 2010 and 2013. The large peak around 2006 could be correlated with the release of Al Gore's film, *An Inconvenient Truth*, which quickly became a box office hit (Marshall, 2009). The movie may have easily led to a media focus on the issue of climate change. The smaller peak in 2010 could be linked with the

UN religious conference on climate change, but the amount of coverage found during this time period was not very significant. However, a study by Boykoff and Yulsman, which tracked the number of articles discussing climate change in North America, found a significant peak around 2009 and 2010. This study also found a major peak in 2006 (Boykoff & Yulsman, 2013). While the Boykoff and Yulsman study did not take into account religion, these trends could be extrapolated. This could suggest that my hypothesis may be accurate, but that not enough articles were analyzed in order to pick up on the increase in coverage after 2009.

Overwhelmingly, the interviewees believe that climate change was happening and believed that some sort of action should be taken. Even though that was the case, engaging Seventh-day Adventists in a discussion about supporting policies and actions that would address climate change would pose a significant challenge. This is due to the belief that the church should stay out of politics completely. The interviewees emphasized individual actions over collective ones. This included general attitudes about taking care and having respect for all living things, and by encouraging a vegetarian or vegan diet.

One way in which faith based climate change action may be most successful is if activists focused on concepts of stewardship and creation care, rather than on climate change directly. Many of the interviewees had a basic understand of the concept of climate change but were fuzzy when it came to the specifics. Most were clearer in their understanding that generally human beings should take care of the planet and the way in which humans have been operating is destructive and unsustainable. Since the concepts of stewardship and creation care are prominent in Adventist thinking, these concepts could be used to encourage emissions-reducing behaviors without raising counterproductive conflicts over political beliefs or how prominent or harmful climate change may be.

It is worth noting that the majority of interviewees were willing and interested to discuss climate change, especially from a faith-based perspective. This may suggest that people in the Seventh-day Adventist congregation are interested and want to be engaged with this topic. However, it is important to remember that providing information and facilitating discussions does not guarantee transformed attitudes or new behavior within the church or at the individual level.

My results indicate that scientists, environmentalists, and others wishing to promote cooperation with the Seventh-day Adventists and other Judeo-Christian denominations on climate change mitigation need to be aware of the religious beliefs discussed above. While this study focused on general values and the links between religion and action on climate change, it did not fully investigate how ideas and values could translate into encouraging further action or awareness.

Although this study provides a good groundwork, future social-science research on the topic should focus on taking this study a step farther to investigate how to facilitate action on the subject. This could include focusing on what types of action may be most successful among religious audiences like the Seventh-day Adventists and what aspects of the climate change issue may be most beneficial to emphasize. This would further clarify barriers and opportunities for meaningful change. Future studies should also focus on expanding the number of interviews and including many different denominations for a more comprehensive understanding of the Judeo-Christian perspective on this topic. It would also be interesting and beneficial to expand outside of Judeo-Christianity and include the perspectives of other faiths.

References

- Banks, A. M. (2006). Evangelicals split on global warming. *Christian Century*, 123(5), 10.
- Barker, D. C., & Bearce, D. H. (2013). End-Times Theology, the Shadow of the Future, and Public Resistance to Addressing Global Climate Change. *Political Research Quarterly*, 66(2), 267-279. doi:10.1177/1065912912442243
- Beisner, E. C. (1997). *Where garden meets wilderness: Evangelical entry into the environmental debate*. Grand Rapids, MI: Eerdmans
- Binkley, J., & Jensen, G. L. (2004). Diet, Life Expectancy, and Chronic Disease: Studies of Seventh-day Adventists and Other Vegetarians. Oxford University Press, Inc, New York. *The American Journal of Clinical Nutrition*, 79(3), 525-526.
- Boykoff, M. T., & Nacu-Schmidt, A. (2013). United States Newspaper Coverage of Climate Change or Global Warming, 2000-2013. Cooperative Institute for Research in Environmental Sciences, Center for Science and Technology Policy Research, University of Colorado. Retrieved from http://sciencepolicy.colorado.edu/media_coverage/us
- Boykoff, M. T., & Yulsman, T. (2013). Political economy, media, and climate change: Sinews of modern life. *Wiley Interdisciplinary Reviews: Climate Change*, 4(5) 359-371. doi: 10.1002/wcc.233
- Carr, W., Patterson, M., Yung, L., & Spencer, D. (2012). The Faithful Skeptics: Evangelical Religious Beliefs and Perceptions of Climate Change. *Journal For The Study Of Religion, Nature & Culture*, 6(3), 276-299. doi:10.1558/jsrnc.v6i3.276
- Clements, J. M., McCright, A. M., & Xiao, C. (2013). Green Christians? An Empirical Examination of Environmental Concern Within the US General Public. *Organization & Environment*, 1086026613495475.
- Cooney, C. M. (2010). The perception factor: Climate change gets personal. *Environmental Health Perspectives*, 118(11), A484-A488.
- Crosby, D. A. (2013). *The Thou of Nature: Religious Naturalism and Reverence for Sentient Life*. Albany, New York: State University of New York Press.
- Donner, S. (2007). Domains of the Gods: An Editorial Essay. *Climatic Change*, 85, 231-236.
- Eckberg, D.L., & Blocker, T. J. (1989). Varieties of religious involvement and environmental concerns: Testing the Lynn White Thesis. *Society for the Scientific Study of Religion*, 28(4), 509-517.

- Eshel, G., & Martin, P. A. (2006). Diet, Energy, and Global Warming. *Earth Interactions*, 10(1), 1-17.
- Fenton, S. (n.d.). *Many Heavens, One Earth: World religions heed call to "go green"*. Retrieved from <http://www.annarbor.com/faith/many-heavens-one-earth-world-religions-heed-call-to-go-green/>
- Globus Veidman, R., Szasz, A., & Haluza-DeLay, R. (2012). Introduction: Climate Change and Religion—A Review of Existing Research. *Journal For The Study Of Religion, Nature & Culture*, 6(3), 255-275. doi:10.1558/jsrnc.v6i3.255
- Greeley, A. (1993). Religion and attitudes toward the environment. *Journal for the Scientific Study of Religion*, 32(1), 19–28.
- Haluza-Delay, R. (2000). Green fire and religious spirit. *Journal of Experiential Education*, 23, 143-149.
- Harper, F., & Kennealy, S. (2009). Greening our faith: Putting belief into action. *Anglican Theological Review*, 91, 619-625.
- Hitzhusen, G.E. (2007). Judeo-Christian theology and the environment: moving beyond skepticism to new sources for environmental education in the United States. *Environmental Education Research*, 13(1), 55-74.
- Hitzhusen, G. E. (2012). Going green and renewing life: Environmental education in faith communities. *New Directions For Adult & Continuing Education*, 133, 35-44.
- Hoffman, A. J., & Sandelands, L. E. (2005). Getting right with nature: Anthropocentrism, ecocentrism, and theocentrism. *Organization & Environment*, 18, 141-162.
- Hulme, M. (2009). *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity*. New York, NY: Cambridge University Press.
- Human influence on climate clear, IPCC report says (2013). Retrieved from http://www.ipcc.ch/news_and_events/docs/ar5/press_release_ar5_wgi_en.pdf
- Kearns, L. (1996). Saving the creation: Christian environmentalism in the United States. *Sociology of Religion*, 57, 55-70.
- Lachapelle, E., Borick, C. P., & Rabe, B. (2012). Public Attitudes toward Climate Science and Climate Policy in Federal Systems: Canada and the United States Compared. *Review of Policy Research*, 29(3), 334-357. doi: 10.1111/j.15411338.2012.00563.x
- Leiserowitz, A. A. (2005). American Risk Perceptions: Is Climate Change Dangerous? *Risk Analysis*, 25(6), 1433-1442.

- Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2012). *Climate change in the American mind: Americans' global warming beliefs and attitudes in September, 2012*. Retrieved from <http://environment.yale.edu/climate-communication/files/Climate-Beliefs-September-2012.pdf>
- Marlow, H. J., Hayes, W. K., Soret, S., Carter, R. L., Schwab, E. R., & Sabaté, J. (2009). Diet and the environment: does what you eat matter? *The American journal of clinical nutrition*, 89(5), 1699S-1703S.
- Marshall, M. (2009). Timeline: Climate Change. Retrieved from <http://www.newscientist.com/article/dn9912-timeline-climate-change.html?page=2#.UxeAe0JdUfU>
- Mastaler, J. (2011). A Case Study on Climate Change and its Effects on the Global Poor. *Worldviews: Global Religions, Culture & Ecology*, 15(1), 65-87. doi:10.1163/156853511X553831
- Mhlanga, P. (2000). *Stewardship of the Environment: An Adventist Imperative*. Silver Spring, M.D.: Institute for Christian Learning.
- Pew Forum on Religion and Public Life. (2008). *U.S Religious Landscape Survey*. Retrieved from <http://religions.pewforum.org/pdf/report-religious-landscape-study-full.pdf>
- Rahm, D. (2010). *Climate Change Policy in the United States: The Science, the Politics, and the Prospects for Change*. Jefferson, N.C.: McFarland & Co.
- Rosenzweig, C., & Parry, M. L. (1994). Potential Impact Of Climate Change On World Food Supply. *Nature*, 367(6459), 133-138.
- Ruse, M. (2008). Creationism. Retrieved from <http://plato.stanford.edu/archives/fall2008/entries/creationism/>
- Schultz, P.W., Zelezny, L., & Dalrymple, N.J. (2000). A multinational perspective on the relationship between Judeo-Christian religious beliefs and attitudes of environmental concern. *Environment and Behavior*, 32(4), 576-91.
- Smidt, C. (ed.). (2003). *Religion as Social Capital: Producing the Common Good*. Waco, TX: Baylor University Press.
- Smith, N., & Leiserowitz, A. (2013). American evangelicals and global warming. *Global Environmental Change*. doi: 10.1016/j.gloenvcha.2013.04.001.
- Sponsel, L.E. (2007, July 2). Religion, nature, and environmentalism. Retrieved from <http://www.eoearth.org/view/article/155698/>

- Stewardship of the Environment (n.d.). Retrieved from
<http://www.adventiststewardship.com/article/729/in-practice/in-practice-cp-act-save-eco>
- Swart, I. (2006). Churches as a Stock of Social Capital for Promoting Social Development in Western Cape Communities, *Journal of Religion in Africa*, 36(3&4), 346-378.
- The Dangers of Climate Change. (1995). Retrieved from
<http://www.adventist.org/beliefs/statements/main-stat8.html>.
- The Discovery of Global Warming. (2010). Retrieved from
<http://www.aip.org/history/climate/summary.htm>
- Truelove, H. B., & Joireman, J. (2009). Understanding the relationship between Christian orthodoxy and environmentalism: The mediating role of perceived environmental consequences. *Environment and Behavior*, 41, 806–820.
- Turn Down the Heat: Why a 4° C Warmer World Must be Avoided. (2012). Retrieved from
http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf
- UN and ARC launch programme with faiths on climate change. (2007). Retrieved from
<http://www.arcworld.org/news.asp?pageID=207>
- Vig, N. J., & Kraft M. E. (1990). *Environmental Policy in the 1990s: Toward A New Agenda*. Washington, DC: Congressional Quarterly Press.
- Wallace, M. I. (2008). The new green Christianity: Why the church is vital to saving the planet. *Word and World*, 28, 75-85.
- White Jr, L. (1967). The Historical Roots of Our Ecologic Crisis. *Science*, 155(3767), 1203-1207.
- Wolf, J., & Gjerris, M. (2009). A religious perspective on climate change. *Studia Theologica*, 63(2), 119-139. doi: 10.1080/00393380903354307
- World religions pledge concrete action on climate change. (n.d.). Retrieved from
http://www.onecountry.org/e203/e20301as_Windsor_Climate_event_story.html
- 28 Fundamental Beliefs. (n.d.). Retrieved from
<http://www.adventist.org/fileadmin/adventist.org/files/articles/official-statements/28Beliefs-English.pdf>

Appendixes

Appendix A

Interview Questions

1. Do you agree with the general scientific community that climate change is happening? Why or why not?
2. Do you agree that climate change is caused by human actions?
3. Why do you think there is a resistance to the idea that humans are causing climate change?
4. Where do you get your information on climate change?
5. How do your religious beliefs influence your views of climate change?
6. Do you see a link between creationism and climate change?
7. If so, what is this link?
8. If humans were not present on the planet, do you think that the climate would change more, less, or the same amount as it currently does?
9. Do you see the Seventh-day Adventists in playing a role fostering engagement with climate change and environmental stewardship?
10. If so, what role?
11. Do you see the Seventh-day Adventists as being a leader in environmental stewardship?
12. Do you think that the incorporation of environmental stewardship in a congregation in Boulder would be transferable and successful in other places around the country?

