

Whose Climate is it Anyway?

Climate Change and Comedy in Contemporary America

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I have many people to thank because
To write a thesis, like to raise a baby, takes a village.
– Brown University Proverb**

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¹ What does that even mean?? We all know there is no such thing as normal... (but still)

² Just wait until we take this on the road with a sociology of science stand-up comedy club. Hello World!

Introduction

Here's a little story about how this project came into being. Why start there? Well, I walked into this project with some biases and assumptions that have undoubtedly influenced my research and analysis and I think it will be helpful for you to know about them before we begin. Also, if you are like any of the other hundred people I've talked to about this topic in the past eight months, you probably also walk into this project with some biases and assumptions. It seems that almost anyone who looks at the words on the title-page of this thesis is going to have a stronger initial reaction than they would to, say, a thesis entitled: "Shrimps and Grass: An Exploration of the Seasonal Eating Habits of the Northern Wood Duck" for example. So I'll begin by telling a bit about my journey to this project in the hope that it will help us each reflect on the perspective we bring.

I am a 23-year-old female, born and raised in New York City. Despite, or perhaps because of, this upbringing I always have had a deep affinity towards nature. Maybe it's a genuine connection, maybe a romanticized notion, probably somewhere in between. The summer after my freshman year in high school I spent a month at a Youth Leadership Seminar in Canada and learned about climate change. My mind was blown. Blown. It was inconceivable to me that I lived, without even meaning to or knowing that I did, in a way that would require the resources of 5 planet Earths (5 Earths!) to sustain if everyone else on Earth lived the same way. That image hit home for me as a metaphor for my position within systems of inequality, over-consumption, and environmental degradation. I quickly became what some of my interviewees would call, "a bleeding-heart young environmentalist". I talked to my family, I talked to my friends, I talked to

strangers on the street. I became vegetarian. I started composting. I cried in the checkout line at H&M in lamentation of our consumer-based world order. I started a carbon-footprint reduction club at my school. And... as you can probably guess, I relatively swiftly and quite painfully became disillusioned. No one really seemed to want to talk with me about climate change, and certainly no one wanted to give up their lunch hour to go to a meeting for my carbon footprint reduction club called, un-ironically, “CIC Me” (an acronym for “challenge, inspire, and connect me” that was pronounced “Kick Me”). While in retrospect I probably wouldn’t want to give up my lunch break to go to my 15-year-old-self’s carbon-footprint-reduction club, at the time I found people’s indifference inconceivable. I didn’t get how they could just not care and honestly thought they were horrible people, a bunch of apathetic dimwits. Perhaps there was some truth in that thought, but just as (if not more) likely, it was I who was an insufferable twit: mildly informed and not so much fun to talk with... no wonder no one wanted to talk with me. Which, is just to say, there is only so long you can blame your audience for not wanting to listen before you have to start blaming yourself and figuring out how to be more worth listening to.

I didn’t know it at the time, but my dilemma was not at all unique. It is pretty much the defining dilemma of the climate movement: How do we talk about climate change in a way that is accurate, accessible, relevant and compelling, as opposed to hyperbolic, boring, inaccessible and abstract? It turns out that a lot of smart people have spent a lot of time asking that same question. So, I have spent the past few years at Brown as a Science and Society concentrator learning about the research that has been done into interactions between scientists, policymakers, laymen, educational institutions, cultural organizations and media organizations about climate change. You’ll get to read about some of that existing research later in this paper.

However, despite, this academic knowledge acquisition, my personal attempts at talking about climate change with people fell just as flat as in 10th grad. Suffice to say, I remained in the pickle of being a glass-half-full kind of person who was obsessed with a glass-half-empty kind of problem that no one wanted to talk with me about. I joined environmental groups on campus and found many passionate people working on the problem of climate change, however, as soon as I stepped outside of that like-minded people eco-bubble, I struggled to have good conversations, even with my close friends, about the subject. It wasn't as if the conversations weren't needed, they were just exceptionally difficult to have. It seemed that even in this very educated and liberal university environment, most people who were not directly studying climate change didn't have confident understanding of the basic science of anthropogenic climate change and didn't think about it too much. Because the conversations were not fun or easy to have, I stopped trying to have them. But, I never stopped wanting to have them. Thus, this project, comes as my contribution to the climate science communication community's perpetual quest to find a way to talk with people about climate change that is factually accurate and emotionally resonant as well as my personal hope that we can find a way to do so that is not fundamentally grounded in the emotions of fear or guilt.

Enter, humor.

"Perhaps, just perhaps," I thought, "Humor might hold some clues to this quest." So I did some research. Shockingly enough, I discovered that there was very little research to be found about the intersections between climate change and humor despite the existence of research calling for further research about the ways in which humor was being used to communicate about climate change. So, I set out to try to see what I could discover.

Thus, this project was born from the following assumptions: First, anthropogenic climate change is a real phenomenon that poses risks to the well being of many life forms on this planet. Second, people need to believe the first thing in order for anything to change. Third, more people like paying attention to funny things than serious things. Therefore, finally, if we can figure out a way to talk about climate change that is funny, we might be able to reach and engage more people.

So, as you can see, I imported assumptions into the structuring of this project. I began this project as a hammer looking for a nail; I was asking the question: “how can we use humor as a tool to communicate about climate change?” It became clear to me over the course of the project that instead I needed to ask: “Is humor a tool?” If so: “What is it capable of accomplishing in which different contexts?” And then: “What do I mean by climate change?”, “What exactly is important to communicate about it?” and “To whom is it important to communicate that?” Then finally, given those answers, I could begin to think about: “what are some of the roles (positive or negative) that humor is playing in communicating about climate change to different audiences?” and “What are some of the areas of potentials for using humor to talk about climate change in the future?” Which would in turn lead to the question of “what are the avenues of further research and action that make humor a tool for social change on climate change?”

I came to the realization that my initial question was flawed by looking at how different people responded to the topic when I told them about it. I began most of my interviews and conversations on the subject by asking people their first thoughts upon seeing the words “climate change” and “comedy” next to each other in a sentence. One person’s response summed up a lot of what I found: he said, “I think I have a gut, instinctive reaction, I guess. I think most people

do. There's like an emotional trigger in that topic... and I don't know why it's there but I think it is there." I noticed that almost everyone I spoke to had some strong gut reaction to the topic. These tended to fall in three broad categories: effusively enthusiastic, soberly shocked, or cautiously critical.

The effusive enthusiasts were by far the group I encountered most. These enthusiasts fell into two broad categories, slacktivist³ enthusiast and skeptical enthusiast. The slacktivist enthusiast response was something along the lines of "OMG YES! You mean I can solve climate change by laughing?!?!? I'd love that. What a cool topic. I wish that I cared more about climate change and comedy seems like it would be a great way to be engaged this topic. It's just so boring or depressing usually." The skeptical enthusiast response was something along the lines of: "Yes! This whole climate change thing is ripe with humor. What a joke it is! Ha ha."

The second group was the soberly shocked response. They usually said something along the lines of , "So let me get this straight... You think climate change is a joke? ... What's funny about Climate Change? I don't get it. " The third group was the cautiously critical aka thoughtful expert group. Their response was something like, "Interesting. I definitely have thoughts, but what exactly are you talking about? There are more questions raised than answered by the mere act of putting those three words in the same sentence. Tell me more."

I interpret those responses in the following way: Seeing the first groups' unquestioning enthusiasm for the topic as compared to the third group's cautious consideration, helped me recognize the importance of questioning my own un-questioned enthusiasm about the subject, the potential for there to be important findings related to the subject, and the need to get more

³ "Slactivism" is a portmanteau of the words "slacker" and "activism". It refers to the phenomenon of low-effort contributions to a cause that have little or no impact, but make the person feel good about their efforts and stand-in for deeper engagement. Examples include as signing internet petitions, updating Facebook statuses etc.

critical expert input. This is because while the dominance of the slacktivist enthusiast response and rarity of the skeptical enthusiastic response I encountered likely reflects a bias in the communities I interact with, I would hypothesize that the dominant response amongst the larger population would be enthusiasm of some sort. This is to say that most people would be somewhat intrigued by the idea of comedy about climate change or at least would be more interested in listening to comedy related to climate change than watching serious news or lectures about it. The rationale for this hypothesis is quite simply that people, on the whole, would rather be entertained than lectured at or taught, particularly when the topic is complicated or depressing. This strong, but slightly unthinking, enthusiasm I encountered demonstrates to me that there would be a market for material that combines information, opinions and humor about climate change. However, the sober, serious response demonstrates to me that there are risks associated with treating this topic in a humorous manner that are important to consider. It became clear, that engaging more with the third group of people who were cautiously critical and thoughtful would be a great place to focus my attention in trying to learn more.

I decided to seek out expert opinions from a range of related fields including comedy, entertainment media, research, activism, and NGO professionals to see what I could discover. I wanted to learn about how/why/and to what perceived effect, non-scientists (I ended up focusing mostly on comedians) were combining climate change and humor, with the broader intention of looking at how to collate the lessons and perspectives from the third critical expert group in order to tap into the desire and enthusiasm in the first enthusiastic group.

I interviewed 26 people about a wide range of their experiences and amassed a large pool of data. I wish that I could include everything I learned throughout this process in this one paper. However, due to restrictions of time and space I cannot. Instead my goal in this paper will be to

present and analyze a small piece of the perspectives that I encountered and think about the implications they hold for further research about and action related to the intersection between climate change and comedy.

Here is a road map of what is to come: In chapter one I will discuss my literature review (some of which can also be found in the appendices). It will cover the science of climate change, the public perception gap related to that science, the benefits and shortcomings of a traditional information deficit model of explaining societal controversy over climate change science, and the need for new approaches to climate science communication. To close chapter one I will discuss the current state of research into climate change and comedy. In chapter two, I will discuss the gaps in the existing research to which I am responding with this project. I will propose a bird's eye framework for where climate change and humor collide and carve out my own niche of study within that framework. I will introduce my interviewees, methods and state the questions this project tries to answer.

In chapter three I will begin my analysis of the data I collected and address three questions: 1) "Is climate change a topic that is often addressed in stand-up comedy and comedy news?" 2) "What are the reasons why comedians do and don't talk about climate change in their work?" 3) "What factor is the largest determinant of whether or not a comedian will talk about climate change in their comedy?" I will argue that climate change is not a commonly addressed topic in the comedy world and that personal investment in the topic of climate change is the single biggest determinant of whether or not a comedian will include the topic in his/her work.

In chapter four I will pursue the question: "What do comedians talk about when they do talk about climate change?" I will argue that comedians do not make jokes about actually scientific information related to climate change in comedy, and that they do not treat climate

change primarily as a scientific topic. Instead I will show that they perform content related to details, tangents, and ridiculous human behavior, and treat climate change as primarily a social cause or a political issue.

In chapter five I will consider three questions: 1) “How do comedians structure their approach the topic of climate change in their comedy when they include it?” 2) “What are opportunities afforded by and risks inherent to each of these approaches?” 3) “What determines which approach a comedian will use?” I will propose a framework that outlines the five common approaches that comedians use to talk about climate change, the advantages and disadvantages of each approach, and the governing factor of position in the comedy world that determines which approach a comedian can successfully use.

In the conclusion I will talk about my take-away conclusions on the intersections between climate change and comedy, propose ways in which the tool of humor in general and comedians as specific wielders of the tool of humor, may or may not be able to be a force for change on the topic of climate change. I end with recommendations for further research.

Chapter One. Setting the Stage: A Literature Review of Climate Change, Science Communication, and Humor

I will begin by setting the stage on the scientific consensus and societal controversy of climate change. The fundamental premise of the scientific theory of Anthropogenic Climate Change (ACC) is that human activity is altering the earth's climate system. Humans are adding greenhouse gases (mainly carbon dioxide, methane and nitrous oxide) to the earth's atmosphere at a rate that exceeds natural systems' abilities to remove them. This is primarily through the combustion of fossil fuels (coal, oil, natural gas) and changes to land surfaces that diminish natural carbon "sinks" (e.g. converting rainforest into pastureland).⁴ Carbon dioxide levels have increased by 40% since pre-industrial times, and in the year 2013, for the first time in at least 800,000 years, the parts per million (ppm) concentration of carbon dioxide in the atmosphere exceeded 400 ppm (IPCC 2013). The effect of this extra CO₂ and other greenhouse gases is a net increase of energy in the earth's climate system due to a phenomenon called the "greenhouse effect" whereby the aforementioned greenhouse gases trap heat radiating from Earth that otherwise would escape into outer space.

According to the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report in 2013, the warming of the physical climate system is "unequivocal", and it is "extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century"(IPCC 2013:17). This language correlates to a 95-100% degree of

⁴ Carbon sinks are processes that remove carbon from the atmosphere. One example is that photosynthetic plants remove carbon from the atmosphere and lock it away in the form of plant material in sediments. Therefore, deforestation removes this natural source of carbon dioxide removal from the atmosphere.

certainty of ACC, which, for comparison purposes, is the same degree of certainty that scientists have linking tobacco smoking to higher rates of cancer (Borenstein 2013). Current observations and predicted further effects of climate change include a decrease in snow and ice cover, increases in average land and sea temperatures, changes in rain patterns, higher frequency of hotter than average days, increased likelihood and severity of extreme weather events, as well as associated issues such as ocean acidification caused by increased absorption of Carbon Dioxide into the ocean (IPCC 2013).

For the purpose of this project, I will not engage further with the scientific evidence for Anthropogenic Climate Change. This is because, in contrast to the continued high rates of climate change skepticism amongst the American public and elected officials, there is virtually no debate amongst the scientific community as to the validity of the basic theory of ACC.⁵

This scientific consensus on ACC is demonstrated in the aforementioned language used by the IPCC and has been explicitly documented in a series of peer reviewed studies. In the first such study: “Beyond the Ivory Tower, The Scientific Consensus on Climate Change”, Naomi Oreskes (2004) surveyed the 928 papers published in peer review scientific journals between 1993 and 2003 and listed in the ISI database under the keywords “global climate change” and found that not a single one of them disagreed with the consensus opinion. These findings were replicated in subsequent studies including one published in 2013 which found that that only 0.7% of papers published in peer reviewed journals from 1991-2011 related to the search terms “global climate change” and “global warming” actively rejected the consensus on ACC. (Cook et al. 2013). When surveyed, 97% of the authors of those papers supported the theory of ACC (Cook et al. 2013). Additional analysis of the structures of citation networks amongst scientific papers suggests that consensus on ACC likely emerged in the early 1990’s, even before the typically

⁵ For a brilliantly articulated summary of the current status of climate change science visit the IPCC’s website.

cited 2004 Oreskes report or 1995 second IPCC report (Shwed and Bearman 2010)⁶.

Despite these twenty years of scientific consensus on the reality and imminent threat of ACC, as an international and domestic community we have failed to commit to and follow through with binding plans to prevent and prepare for climate change.⁷ The much anticipated 2009 UN Climate Change Conference in Copenhagen (COP15) was widely regarded as insufficient at best, and a total failure at worst. This sustained international gridlock on climate change action has led increasingly to the idea that local elected officials, on the national, state and municipal levels are in the best position to take meaningful action through localized mitigative and adaptive measures (Jervey 2013). Some countries and cities have taken strong action, while others have not.

The US, in particular, is notable on the global stage for its reluctance to act upon climate change through national legislation and emissions reductions targets. The US has not ratified the Kyoto protocol nor has it passed national emissions reductions legislation such as Cap and Trade measures. President Barack Obama has been far more pro-active on this issue than former president George W. Bush, however there still has not been a comprehensive climate change legislation passed. This is likely attributable to the large public opinion gap between those who do and don't believe in ACC in America. According to a Pew Research Center report in 2013,

⁶ Interestingly, Shwed and Bearman's study shows that the structures of consensus formation about the carcinogenic nature of tobacco vs climate change are different although they are often referred to as analogous. In the case of the carcinogenic nature of tobacco, the temporal structure of scientific consensus formation was cyclical, meaning that as time went on debate existed about the same questions. In the case of ACC, the temporal structure of consensus formation was a spiral which means that as time went on, debate was about different questions, as the first circle of issues was resolved which made way for a secondary series of issues. This difference is possibly due to the difference between the industry forces who were intervening in each different case. In the case of tobacco, the tobacco industry was funding research to counteract the linking of tobacco and cancer whereas in the case of ACC, energy industry and private interests were funding people to deny the science rather than do conflicting scientific research. The emphasis in the case of ACC was placed on creating confusion amongst the public rather than contestation within the scientific community (Shwed and Bearman 2010)

⁷ U.N. Secretary-General Ban Ki-moon has described the current carbon reduction pledges as "simply inadequate" (Democracynow.com 2013). Many industrialized nations have repeatedly shown their reluctance to make strong emissions reductions and commit financial and technological aid to developing countries. The US has still not ratified the Kyoto protocol, and China is not subject to emissions restrictions under it (Gillies 2011). In November 2013, Japan announced that they would change their emissions reduction pledges, Australia suggested it might follow suit and that it planned to weaken its carbon tax regulations, and Canada applauded Australia for its actions, urging other countries to do the same (ABS News 2013.) This demonstrates the kind of behavior that prompted 133 countries and numerous prominent environmental organizations to symbolically "walk out" of a portion of November's International Climate Conferences COP 19 in Warsaw in response more specifically to industrialized nations' unwillingness to discuss climate change recompensation (known as loss and damages) until 2015. (Vidal 2013).

only 44% of Americans say that the earth is warming and human activity is the main cause, another 23% say that there is warming but it is due to natural cycles or reasons they aren't sure of. That means that 33% of the American public does not believe that there is evidence for climate change. This number is higher in different demographics. For example 70% of Tea Party Republicans say that there is no solid evidence that the earth is warming as compared to 32% of non Tea Party Republicans and 11% of Democrats espousing the same view. Only 9% of Tea Party identified American Adults say that there is solid evidence that the earth is warming due to human causes, as compared to 32% of non-Tea Party Republicans and 64% of Democrats (Pew 2013).

This public opinion gap is not just a phenomenon amongst citizens, it is also largely present amongst our elected government officials. Over half of current Republican members of the US House of Representatives and Senate deny or question some part of the theory of ACC (Germain 2013). For example, in response to the release of the IPCC's Fifth Assessment Summary for Policymakers" Senator Jim Inhofe, a senior member of the Senate Environment and Public Works Committee said the report "proves that the UN is more interested in advancing a political agenda than scientific integrity" and the discussion of the report is "politically charged media alarmism" (Inhofe 2013).

Why do people not believe what 97% of scientists have believed for 20 years: that anthropogenic climate change is real? Why is the continued social and political debate about the validity of the facts of climate change rather than about possible avenues of action? Next I will discuss research literature that explains the gap between public opinion and scientific consensus about climate change and the continued social controversy over climate science. I will argue that the existing research demonstrates the importance of new directions for climate change

communication and justifies further research into humor as a tool for communicating about climate change.

Traditionally, social controversy over science has been understood through the framework of a “deficit model”. This model asserts that societal conflicts over science are driven by deficits in public knowledge and that the solution is therefore simply an increase in science communication and education (Eveland 2013). This model places an emphasis on a one-way transmission of accurate scientific information and blames continued social controversy on media’s inaccurate portrayal of science as well as publics’ deficient reception of it due to scientific illiteracy, ignorance, irrationality, or apathy (Eveland 2013).

However, studies (that I will discuss below) have shown that the explanations and solutions of the deficit model do not sufficiently account for or provide solutions to the gap in public opinions of climate change. Increased scientific literacy and the dissemination of information, although important, does not alone change public opinion in the case of climate change (Kahan et al. 2010). Rather, there are psychological and sociological forces that prevent or disincentivize people from accepting and integrating climate change knowledge into their worldviews even in the face of ample scientific evidence. There has been a failure of appropriate science communication rather than simply a failure of appropriate science reception. Moving away from a deficit model takes some of the blame that has been put on journalists and publics and places it also on the science and science communication communities calling for new and different modes and avenues of communication rather than just more of the same (Nisbet and Scheufele 2009). It is this literature that I will be discussing below and responding to with my research.

Although increasingly viewed as insufficient on its own, an information deficit model is partially appropriate for understanding the case of societal controversy over climate science; it is certainly true that the belief gap about ACC is in part due to inaccurate and insufficient information dissemination. There have been deliberate misinformation campaigns funded by the energy industry and conservative think tanks that have worked to disseminate doubt and create the sense that the science is still uncertain about ACC (Oreskes 2010; Nisbet 2009). These same groups have actively sought to counteract domestic climate change legislation and US involvement in the Kyoto Protocol (McCright & Dunlap 2003). It is also shown that the media is partially to blame in this creation of a false perception of a scientific debate. This is because media outlets have tended to choose a conflict frame to discuss the science of ACC, applying the doctrine of balanced air time for pro and anti ACC sources and thus giving the opinions of the 3% of scientists who doubt ACC the same air time as the 97% who don't doubt it (Boykoff 2004). This commonly employed frame of scientific uncertainty in media coverage of climate change science and has been used by some to delegitimize layperson knowledge and concern over climate change as alarmist and not based in science (Zehr 2000).

There are also factors that keep people from being good receptors of scientific information by perceiving the science of ACC as accurate when they are faced with it as the deficit model suggests. These include elements of climate change itself which make it difficult for people to understand as a threat such as the fact that it is caused by invisible gases and operates on physical and temporal scales that are beyond the capacities of human experience (Moser 2009) (Weber & Stern 2011). They also include confirmation biases and motivated reasoning which make people more likely to discount or reject new information that is discordant with previously held beliefs (Kunda, Ziva. 1990), as well as identity protective mechanisms and

structure justification incentives which motivate people to reject information that threatens their sense of identity, habitual ways of life, and systems/structures that are favorable to them. This has been documented especially amongst conservative white males in the US, who are more likely to question ACC than any other group of the American public (McCright & Dunlap 2011).

However, contrary to the deficit model's assumption that this rejection is due to an ignorant or irrational public, research shows that ACC rejection is an individually rational choice for certain actors. This in particular has been researched by the Yale Law School's center for Cultural Cognition which focuses on the ways in which people's cultural values affect their perception of controversial scientific issues such as climate change. They have discovered that orienting people on a scale between communalism vs. individualism and egalitarian vs. hierarchical reveals a stronger correlation with beliefs about global warming than does scientific literacy or political affiliation (Kahan et al. 2010). Their studies reveal that the perceived cultural values of the person communicating about ACC affects the way in which the listener credits or discredits the information being communicated; it is not that people reject scientific expertise, they just have differing views about who counts as an expert (Kahan et al. 2010). Kahan et al also point to the ways in which rejection of the science of climate change is actually an individually rational choice for people living in communities wherein that is the dominant opinion, or where the assumed solutions to climate change lead to perceived threats to habitual lifestyles (Kahan et al. 2007).

Where does this leave us? Well, Kahan et al end their paper with the conclusion that "communicators must attend to the cultural meaning as well as the scientific content of information", and a call for the use of techniques such as "identity affirmation", "pluralistic

advocacy” and “narrative framing” to make scientific communication more applicable and palatable to different audiences.

Parry (2002) agrees with their conclusions, writing in an article entitled *Scientists as Communicators: How to win friends and influence people* that “science needs to capture hearts as well as minds” and that “Science must find people whose views are trusted by the public and who have good media skills to represent it” (977).

Nisbet and Scheufele (2009) also echo these challenges of the deficit model and argue for an approach to science communication as a dialogue rather than a transmission. Rather than a continuation of the traditional top down approach of communication through traditional science media channels in traditional frames, they stress the value of a broader range of content and approach that is targeted at a wider audience and uses different genres and storytelling techniques. One option they suggest is the use of humor, writing: “Given that satire and comedic news are increasingly preferred media formats for younger audiences, more research is needed on the potential for using this style of humor as a tool for public engagement on science” They also reaffirm the value of face-to-face and interpersonal channels and a more participatory media structure rather than one way marketing channels that can be offered by non-traditional theatrical or humorous modes of communication.

Sarah Davies (2008) also talks about the potential role for humor in moving beyond the deficit model’s one-way approach to communicating about climate change in her article “Constructing Communication: Talking to Scientists About Talking to the Public”. She writes that a common response of the scientists she interviewed is that “the ideal [for science communication] should be visual or interactive forms of communication: demonstrations, ‘activities’ involving the audience, images, and the use of comedy... in contrast to strongly text-

based modes, which were considered to be ineffective and to not engage their audience” (Davies 418). She stresses the importance on focusing on the big picture rather than the details and the importance of making the science feel relevant to people, and concludes that, “The task – again, for those with interests in promoting science-society dialogue—is to encourage and increase the accessibility of these more complex discourses of communication. If this occurs, then it seems possible that scientists and engineers could go into public communication activities assuming not one-way communication and the sole primacy of scientific knowledge, but rather expecting a context-dependent, multi-way debate that seeks to acknowledge all knowledge forms.”(430).

These calls for more research into the role of humor and entertainment in ACC communication, are supported by research into the power of entertainment media to reduce resistance to persuasive messages in audiences that would otherwise be likely to resist them by fostering increased involvement in the narrative of the media content (Moyer-Gusé 2008; Slater & Rouner 2002), as well as the longstanding relationship between humor and science (Scott 2012). These and other studies have focused on humor and comedy as a potential strategy to be used by scientists and science communicators to make for more effective science communication in general and respective to climate change communication. Notably absent, however, is research into the ways in which non-scientists, are already using humor to communicate about climate change. There are news articles that talk about comedians who are using humor to communicate climate change (Ward 2011; Ettling 2014; Adam 2008), there is plenty of research into the powerful social roles of humor in general (Dwyer 1991; Bertil and Skratta 2005; Henman 2001; Meyer 2000) and certainly evidence that comedy has played roles in galvanizing social change in other instances (Sorensen 2008; Kutz-Flamenbaum 2014). However, there is very little research addressing how comedic sources are dealing with climate change and no research about the

impacts that comedic media is having on public perception of climate change. The little research that does exist has focused on the popular mainstream television shows: *The Simpsons* (Peach 2011), and the late-night comedy talk shows *Colbert Report* and *the Daily show* (Feldman 2013). These studies use methods of quantitative content analysis to provide specific information about how these shows address climate change. These studies (which I discuss extensively in Appendix A)⁸ provide interesting and important findings relative to understanding how three important players in the comedy world address climate change, but they are pioneers in the field of an otherwise barren research area and demonstrate how much more research is needed.

⁸ I chose to move my discussion of this research to the Appendix A because it is interesting and relevant but is not critical to my argument.

Chapter Two. Where Comedy and Climate Change Collide: An Introduction to My Methods & Interviewees

In the previous chapter I argued that there was need for further research into the intersections between climate change and comedy as part of climate science communication's transition beyond an information deficit model of understanding and addressing societal controversy over climate change. In this chapter I will describe the design and methods of my research, introduce my interviewees and lay out the questions I am answering with this project.

There are two specific gaps in the research that I designed this project to address. First, there have not been studies that take a broader approach to the topic by comparatively analyzing the treatment of climate change across multiple types of comedic sources and multiple instances of each type. Second, there are no studies that are primarily interview-based and use qualitative methods to include comedian's perspective. So that is exactly what I set out to do with this project: use the qualitative analysis of archived media content and interviews to comparatively analyze why and how different comedic sources address climate change.

My first step was to think most broadly about the full range of places in which climate change information could be said to intersect with humor. I propose the following spectrums to begin:

- 1) Formal \leftrightarrow Casual
- 2) Information driven \leftrightarrow Entertainment driven

Here I am defining "formal" as planned and enduring communication forms such as movies, and "casual" as impromptu and fleeting communication forms like interpersonal conversation. I am defining "information-driven" as media that is primarily intended to communicate information and "entertainment-driven" as primarily that is primarily intended to be entertaining. Thinking categorically rather than continuously, the basic cases of the intersections of these spectrums are:

	Information-Driven	Entertainment Driven
Formal	Scientific Reports News Articles	Entertainment Media (films, TV shows etc)
Casual	Serious Conversation	Impromptu Jokes

Humor and climate change can co-exist in any of these categories. There are certainly people who in day-to-day conversation are humorists and news articles that include jokes. However for this project I chose to focus on the upper right hand corner: formal entertainment-driven media. I chose not to address casual conversation because I want to think about sources of communication that have broad reach and therefore broad potential for impact not because I think it unimportant.⁹ I choose entertainment-driven media because it seems from my literature review that there has been more focus on how science communicators can try to incorporate entertainment into their communication than there has been on whether or not and how entertainers have tried to incorporate climate science or information in their entertainment. I will focus on formal, entertainment-driven media defined as anything that is formal and is primarily intended to entertain. That said, however, I am less interested in thinking categorically, than in thinking continuously and focusing and looking to see if there are places where formal entertainment media blurs towards information-communication media in the case of climate change.

Why? Well there are obviously people who are 100% committed to communicating information about climate change. Much of the research mentioned earlier speaks to this

⁹ I would hypothesize based on my own experience and conversations with other people, that the main ways in which climate change is present in people's day-to-day life is in casual formats and especially in casual jokes. There is therefore much need for further research into the social dynamics of knowledge flows around climate change and the roles that casual, interpersonal humor plays in norm-establishment and information-conveyance about the topic.

phenomenon within the scientific community that historically prioritizes simple information conveyance rather than engagement or entertainment framing of that information. Then there are clearly people who care 100% about being funny, for example, the average comedian. On a whole, the climate science communication field can be described as highly committed to communicating information about climate change and not at all committed to being humorous. In contrast, broadly speaking, the field of comedy and entertainment media is entirely devoted to being humorous and not at all devoted to communicating information to climate change. You can visualize these along simple spectrums as follows:



In the common examples, the more committed someone is to communicating about climate change, the less they are committed to being entertaining generally speaking and humorous in this case. Visaversa the more committed someone is to being entertaining/funny, the less committed they tend to be to communicating about climate change. This is true such that in most examples you could superimpose an inverse of the spectrums without distorting the data:

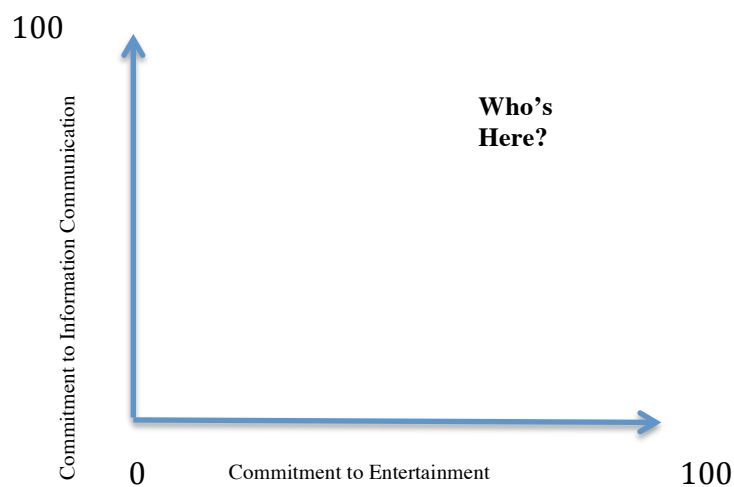


However, as with any generalizations, there must be exceptions to the rule. It is possible, and indeed probable, that there are people who defy the above spectrum by being both highly

committed to communicating information about climate change and to being funny. This uncommon position of high commitment to humor and high commitment to communicating about climate change is what this project is about.



Or alternatively visualized as:



Who, if anyone, is occupying this space of high commitment to both communicating about climate change and to being funny? What can we learn from them? Well, it is possible to get to the middle from both ends. As discussed before, in the literature review, there has already been research focused on the ways in which people communicating in formal, information-driven settings move towards the center of this spectrum by using humor or narrative to communicate their message. There are scientists and science popularizers and activists who move from the information-focused side of the spectrum towards an entertainment focused middle ground. It is unclear whether there are people who are coming from the humorous side of the spectrum to talk about climate change. Here is an image I made which demonstrates this phenomena:

100% Humor & 100% CC

100% CC		100% Humor						
Scientist.	Celebrity Scientist	Science Popularizer.	Activist	Climate Change Comedian.	Comedian Committed to CC.	Comedian Opportunistic CC.	Comedian Open to CC	Average Comedian
Writers of IPCC	Neil De Grasse Tyson	Al Gore	?	?	?	?	?	Average Comedian

Thus far I have argued that science communicators are calling for humor as a potential tool to talk about climate change but there is not yet much research focused on how non-scientists are talking about climate change in their humor. I have ruled out casual conversation as a topic of study and have identified the field of “formal, entertainment-driven” media more specifically whether there are comedians who are committed to communicating about climate change as the focus of my research. In the next section I will discuss my methods and introduce the people I interviewed to explore this un-explored part of the above spectrum.

For this project I conducted 26 interviews in the months between October 2013 and March 2014. The interviews ranged in formality and duration, with some being more akin to casual conversations and others formal in depth interviews. 22 of the 26 interviews were conducted over the phone or Skype, three were conducted in person and one over email. The interviews ranged from 15-70 minutes in length and were on average around 30 minutes long. The interviewees were selected because they were either doing work that was directly related to the intersection between humor and climate change or were deeply involved with humor or climate change. I used a snowballing sample method to grow my sample size, getting recommendations from people in interviewed about whom else to include.

For the interviews, I used a semi-structured interview format with some fixed questions and an overall emergent conversation approach. I would begin the conversation with a short overview of the project and ask them about their immediate impressions and gut reactions to the topic. Next, I would ask them about their work as it pertained to the subject. For comedians I

would ask them if they ever talked about climate change in their comedy. If they did I would ask them, when, why, how and to what perceived effect and if they did not I would ask them why not and if they would ever. If they performed about climate change I would ask them to describe the material they performed and place themselves along a spectrum of message-driven or entertainment-driven in their approach to the topic. For activists, I would ask them when, how, why, and to what perceived effect they used humor in their activism, and if not why not. For the other professionals I would ask them about their work as it related and about their perspective in general of the use of humor in climate change communication.

For all parties I would ask about their perceptions of the challenges, risks, and rewards to combining climate change and humor, and their thoughts on whether or not and in which ways, humor could be a tool for social change in general and in the specific case of climate change.

Of the 26 people I included in this paper:

15 were involved in media content production

11 comedy writers, comedy show producers & comedians

2 filmmakers with experience in environmentally related work

2 performance artists

3 were environmental activists

2 professional environmental activists

1 student activist

8 were professionals in related fields

3 academics

1 works in climate and disaster related work with the UNDP

1 works at a communications firm

1 works at the Whitehouse

1 works with the National Academies

1 works with Skoll Global Threats Fund on climate change

I chose this very broad sample of people because I was interested in getting a bird's-eye view of where climate change and comedy collided according to a wide range of perspectives. The scope of this sample is broad which allows a very wide range of perspectives on the topic, but the sample size is very small which means that the project lacks representative sample size to speak

conclusively about any groups of people. Instead the data represents the personal opinions and activities of these specific individuals. I chose a qualitative approach to analyzing my interviews. After transcribing them, I re-read all of my interviews and began to look for common themes and put the perspectives into conversation with one another. Here are brief biographies of the people I spoke with for this project:

The Comedians

Steve Bodow is currently Co-Executive Producer of “The Daily Show” and was formerly Head Writer of The Daily Show.

Chris Kelly is currently a writer for “Real Time with Bill Maher”. He was formerly a contributing editor with “National Lampoon”, a writer for the "Late Show with David Letterman" and a senior editor at "Spy" and Head Writer for “Politically Incorrect” with Bill Maher. He won an Emmy for his work on Michael Moore's "TV Nation".

Fred Graver is a former Co-Editor in Chief of “National Lampoon”, writer with "Late Night with David Letterman", executive producer of convergence programming at Disney and ABC Cable, creator of the “Best Week Ever” VH1 show. Currently Graver is Creative Director of Media Partnerships at Twitter.

Ze Frank is currently the Executive Vice President of Video at BuzzFeed. He is known as an online performance artist and humorist and created the daily video program “the show with ze frank”

Baratunde Thurston is former Director of Digital for The Onion. Currently he is a comedian, CEO of Cultivated Wit, and author of the New York Times bestselling book “How To Be Black”

Dr. Yoram Bauman is “the World’s First and Only Stand-Up Economist”. He is a stand-up comedian who has a PHD in environmental economics, author of a two volume series “The Cartoon Introduction to Economics” and the soon to be released “The Cartoon Introduction to Climate Change”

David Crowe is a stand-up comedian who performs in comedy clubs, theaters and corporate events across the country and the world. He is famous for his bit “[Gassaholic](#)” about the phrase “addicted to petroleum”

Tim Slagle is a stand-up comedian and political pundit; he performed for The Heartland Institute’s First International Conference on Climate Change.

Brian Ettling is the self-named “Climate Change Comedian”. He is also a National Parks park ranger.

Bengt Washburn is a touring stand-up comedian and former winner of the San Francisco International Comedy Competition.

Lisa Franklin is a student at Brown University and a veteran member of the Brown Stand-Up Comedy club. She hopes to become a comedy writer for television.

The Scientist-Turned-Filmmakers

Randy Olson - Is a scientist turned filmmaker. He has a PHD in Biology from Harvard and a degree in film from University of Southern California. His work includes “Shifting Baselines Ocean Media Project”, “Flock of Dodos: the Evolution- Intelligent Design Circus” and “Sizzle: A Global Warming Comedy”. He is author of two books: “Don't Be Such a Scientist: Talking Substance in an Age of Style” and “Connection: Hollywood Storytelling meets Critical Thinking”.

Jenn Galvin is a scientist and a filmmaker. She has a ScD from Harvard in Environmental Health and is founder of reelblue, a media production company that focuses on global health and environment

Performance Artists

Katie Pearl is a playwright and performance artist. She is part of the Obie-Award winning team PearlDamour who created the large-scale performance installation piece “To Build a Forest”

John G. Rives is a performance poet, storyteller and author. He writes and performs on a variety of topics.

Activists

Bill McKibben is author, environmentalist and founder of 350.org a network of climate-focused campaigns in 188 countries. He has written 15 books about the environment, and his 1989 book “*The End of Nature*” is commonly regarded as the first book for a general audience about climate change. He has appeared multiple times on comedic shows including “Real Time” with Bill Maher and the Colbert Report to talk about climate change and his work with 350.org.

Lucy Sedgwick is a Lead Organizer at Green Corps, she has also organized with the Sierra Club and Food and Water Watch.

Evan Bell is a student organizer at Tufts University’s “Tufts Divest for Our Future” campaign to divest Tuft’s endowment from fossil fuels. He was one of the core organizers of the recent XL Dissent action which was a rally and civil disobedience action in protest of the Keystone XL on 3/2/14 in which 398 youth were arrested.

Other Relevant People

Lauren Feldman - Assistant Professor of Journalism and Media Studies at Rutgers University. Her past research has focused on how partisan news media and political satire programs influence perceptions of climate change and she is co-author of “Cloudy with a chance of heat balls: The portrayal of global warming on *The Daily Show* and *The Colbert Report*”

Juan Enriquez is an academic, author and scientist. He is founding director of Life Sciences Project at Harvard Business School, CEO of Biotechonomy, and author of three books including “*The Untied States of America: Polarization, Fracturing and Our Future*”

Jan Tullis - Professor of Geology at Brown University, she holds a PHD in Geology from UCLA

Jenty Wood is Technical Specialist for Disaster Risk Management and Climate Change with the United Nations Development Program. She currently works in Vietnam and has worked in Nepal, Switzerland, Iraq and Jordan.

Bina Venkataraman is Senior Advisor for Climate Change Innovation at the Obama Administration in the Executive Office of the President

Amy Luers is Director of Climate Change at the Skoll Global Threats Fund

Davis Masten is Co-Chair of the President’s Circle of the National Academies which includes the National Academy of Sciences, National Research Council, The Institute of Medicine, and the National Academy of Engineering

Miriam Fogelson is Senior Associate of Strategic Initiatives and Operations at Moore and Associates a boutique communications consulting firm. She has worked with League of Conservation Voters and the Sierra Club on climate change related political video campaigns.

I will use the information from these 26 interviews as well as content analysis from different comedic sources as my data in the chapters to come. I will focus primarily on stand-up comedy and on comedic news shows that is because there is already existing research into the political and activist potential of comedy news shows in the case of contemporary politics and stand-up comedy in the case of civil rights which means that these sources are likely to have potential for impact in the case of climate change.¹⁰

These are the questions I will endeavor to answer using my data in this project:

¹⁰ There should be further research into other comedic sources such as comic strips, television shows and films. To see more about comedy news and current politics see Appendix A and to see more about stand-up comedy and civil rights see Appendix B

- 1) Is climate change a topic that is often addressed in stand-up comedy and comedy news?
- 2) What are the reasons why comedians do and don't talk about climate change in their work?
- 3) Where do comedians fit along the spectrum I outlined of information-driven to entertainment-driven when it comes to their treatment of climate change? Who, if anyone, is occupying a space of high commitment to both communicating about climate change and to being funny?
- 4) What factor is the largest determinant of where a comedian lands on the spectrum?
- 5) What content do comedians talk about when they do talk about climate change?
- 6) How do comedians approach talking about the content of climate change in their comedy?
- 7) What are opportunities afforded by and risks inherent to each of these approaches?
- 8) What determines which approach a comedian will use?
- 9) (How) Can comedy be a tool for social change in the case of climate change?
- 10) What further research do we need?

Chapter Three. Personal Investment: The Determining Factor of Which Comedians Talk about Climate Change

I begin broadly with the question: “Is climate change a topic that is often addressed in stand-up comedy and comedy news?” The first general finding of this project is that based on the perspective of the people I interviewed, climate change is not a common topic in the world of stand-up comedy or comedy news.

In my interviews I asked if the interviewee could think of any comedians who regularly talked about climate change or any particular bits that had stuck with them on the topic. Most people seemed as if they hadn’t ever considered the question before and none could think of famous stand-up comedians who regularly included it in their act. Chris Kelley’s response was typical: “You know I can’t think of any standups who do it as a regular part of their act”. The fact that most of them seemed never to have thought about the question before and didn’t have an answer that came to mind, demonstrates that it is not a topic that is widely prevalent in the mainstream stand-up comedy world. This is in contrast to similarly polarizing topics like affirmative action, abortion, and evolution that have received significant comedic attention from a wide range of comedians including some of the most famous stand-up comedians like George Carlin, Chris Rock, Bill Hicks and Louis C.K.

Climate change features more prominently in the comedy news world: many people I interviewed mentioned The Daily Show, Colbert Report and The Onion as comedic sources that often deal with climate change. However, when I talked to Steve Bodow from The Daily Show he said: “Its something that we’ve talked about over the years but not one of the things we’ve talked about a ton.” And when I asked him to compare The Daily Show’s coverage of climate change to that of Colbert Report or Bill Maher he said: “I have no idea, I’m not familiar with

how they've dealt with it." This implies that from the perspective of the Co-Executive Producer of *The Daily Show*, which is looked to by other people as a bastion for this topic, climate change is not particularly high on the topic list of the material that they deal with or the material they watch in terms of how other shows approach it.

According to my interviews it would seem that, climate change is not currently a main topic of focus of many comedians. This was corroborated through my content analysis. There are few iconic comedic treatments of climate change, or videos on youtube that have received many views. The closest things to what might be described as an iconic comedic treatment of climate change are a *Futurama* animation "Global Warming or None Like it Hot" that featured in part in the film *An Inconvenient Truth* and a bit in which Will Ferrell parodies George Bush talking about Global Warming ¹¹.

The *Futurama* video¹² features an animated interpretation of the greenhouse effect where an anthropomorphized briefcase carrying characters named Mr. Sunbeam come to warm the Earth but are beaten up by greenhouse gas thugs and accumulate floating in the atmosphere. The Will Ferrell parody features "George Bush" trying to record a press release about global warming and revealing that he actually doesn't know or care at all about the topic.

The closest thing to iconic stand-up comedy about climate change are two environmentally related bits, one by George Carlin and the other by Louis CK. However, neither or them explicitly address climate change, so they are at best tangentially related. The George Carlin bit is known as "Saving the Planet" or "The Planet is fine, the people are fucked"¹³ and the Louis C.K one is called: "If God Came Back to Earth"¹⁴. The titles explain the bits well. Carlin talks about environmentalists who are worried about everything and run around saying.... "we

¹¹ <https://www.youtube.com/watch?v=jOjfxEejS2Y>

¹² <https://www.youtube.com/watch?v=OqVyRa1iuMc>

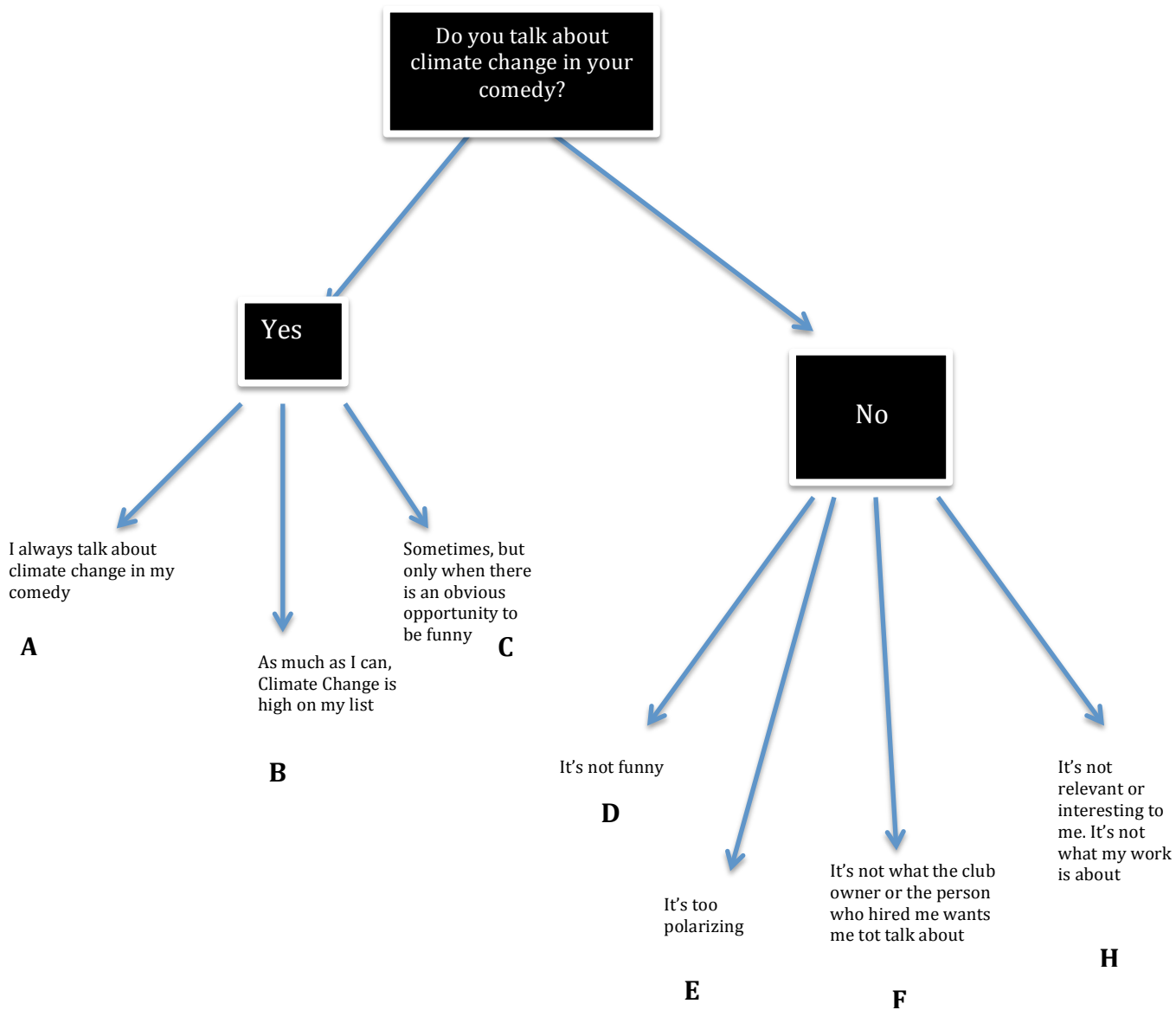
¹³ <https://www.youtube.com/watch?v=BB0aFPXr4n4>

¹⁴ https://www.youtube.com/watch?v=YWZkwuLn_s

have to save the planet!" He says "The planet is gonna be just fine, we are the ones in trouble" he doesn't explicitly talk about climate change but he references fears of Styrofoam, plastic bags and species extinction. Louis CK also doesn't mention climate change in his bit which is an imaginative piece about what God would say about the state of the planet if he came back to Earth.

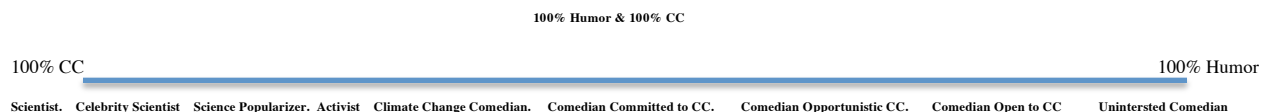
These preliminary overview findings would suggest that climate change is a relatively less-addressed topic in comedy news and one that has not been explicitly addressed by famous stand-up comedians. But, this does not mean that no one is addressing climate change. Next I will dive a bit more deeply to talk about my findings about who is actually talking about climate change and what factors explain why some comedians perform about climate change and others don't. In the remaining part of this chapter I will address the 2-4th questions of my project:

- 2) What are the reasons why comedians do and don't talk about climate change in their work?
- 3) Where do comedians fit along the spectrum I outlined of information-driven to entertainment-driven when it comes to their treatment of climate change? Who, if anyone, is occupying a space of high commitment to both communicating about climate change and to being funny?
- 4) What factor is the largest determinant of where a comedian lands on the spectrum?



This graphic demonstrates my interviewees explanations for why comedians do or don't talk about climate change.

As evidenced in the page above, comedians can be broken into these two startlingly obvious categories: comedians who do talk about climate change in their comedy and comedians who don't talk about climate change in their comedy. My findings in response to questions two and four were that there are a range of reasons comedians do not talk about climate change in their work, but one main reason why they did which was also the determining factor of whether or not a comedian talked about climate change in their comedy: their personal investment in the topic. My finding in response to question 3 was that there are in fact comedians who do address climate change in each of the spaces along this spectrum. I argue that comedians can be broken down into the following categories: Issue-Based, Committed, Opportunistic, Open and Uninterested.



First I will talk about the far right hand side of this spectrum. Comedians do not perform material about climate change, either because they were open to the idea of doing so but hadn't yet found a reason to or because they are uninterested in it and were not open to the idea of performing about climate change. There were a range of reasons why comedians chose not to talk about climate change. Some simply hadn't thought to but would be open to the idea, others felt that they wouldn't be able to talk about it because of the settings in which they performed because it was too polarizing or not what the audience, club owner, or person who had hired them would want them to talk about, and others felt that it was just not a topic that their work was about. While comedians who didn't have material about climate change in their comedy differed for their reasons for not including it, they all shared a lack of strong personal motivation and

attachment to the subject. I initially split the comedians who did not address climate change in their comedy into two groups: open and uninterested as separated by whether or not they would be open to the idea of talking about climate change. However, it emerged over the course of the project that the a comedian would be open to pretty much any topic as long as there were opportunity to be funny about it. So in my analysis rather than splitting the comedians who don't talk about climate change into groups, I split them based on their rationales for not talking about climate change.

Group D described not talking about climate change because it was not obviously funny or relevant to them. I interviewed two comedians who fit into this category.

Lisa Franklin-

“My own stand-up tends to be about my life, or more frequently, observations I have about the absurdity in the world around me. I've had a couple of jokes about the weather, actually, but nothing about climate change yet. I don't doubt that if I continue to do stand-up, in coming years I'll probably have to address how the sky turned purple and it rains acid all the time.”

David Crowe:

“My mind tends to play with the subjects that are relevant to what's happening around me... its not like I'm digging up the subjects that I think are important that nobody talks about.”

“Climate change specifically, I wouldn't be against talking about it, but climate change itself is not how, that's not what's funny.”

This is a very interesting group because it portrays that relevance is something that comedians, just like climate science communicators, struggle to find in climate change.

Group E is for comedians who do not talk about climate change because it is too polarizing of a topic. I did not talk to any comedians who personally identified with this category, but many of the comedians I spoke with mentioned that the polarized nature of climate change was a main deterrent for many other comedians.

Tim Slagle describing other comics:

“I know comics that agree with me [about climate change]. I don’t know any comics that would like me to tell you that they agree with me. I do know several comics that really really agree with me and they tell me I don’t know how you do it. They’re afraid of sinking their career like I did. [laughs]”

Bengt Washburn describing other comics:

“ It’s divisive; Its touchy; Its an extremely polarizing topic. Its one of the most polarizing topics in comedy. If you’re going to do stand up comedy there are certain topics that you’re gonna want to maybe stay away from and that’s one of them, people have strong opinions about it. With stand up at certain venues, when you go into a polarizing topic there is a good chance you are going to loose one side or the other, especially if you are going to take a passionate stance on one side or the other, you’ll loose them. People say they’ll laugh at everything but they don’t, we don’t.”

Miriam Fogelson describing comedians:

“They are worrying about this is their career they want to build an audience and perform places. If they are talking about content that is not commercial they are probably not being encouraged and might be self-censoring, “yeah its not what my audience wants to hear”

This group is interesting because it demonstrates that many comedians are regularly interacting with audiences that have mixed views about climate change. This shows that there is potential for comedians to be a source for communicating to unreached and skeptical audiences about climate change.

Group F addresses comedians who don’t talk about climate change because they are discouraged by a comedy club owner or whomever hired them. This group overlaps with group E as the main reason why the topic of climate change would be discouraged is because it is a polarizing topic.

David Crowe:

“I’m 47 I do my fair share of corporate events and a company wants some entertainment. I have my corporate event act which is different from what I will do at comedy clubs... At someone’s party you are a guest. It’s harder once you are in the mindset of pleasing the person who is writing the checks.”

Miriam Fogelson:

“What we've heard, especially when you are talking about stand-up, it that is hard to talk about these issues in the regular comedy clubs and festivals. A lot of the time the club owners don't want them to talk about it. A lot of the time comics are dissuaded from it.”

This group demonstrates the pressures that anyone wanting to push climate change as a topic in comedy would have to address, and shows that there are institutional structures in the comedy world which are disincentivizing comedians from taking on the topic of climate change.

The last group of reasons why comedians did not address climate change, G, was simply not interested in talking about climate change. David Crowe described this as such: “My belief is that 90 of comedians, like 90 of Americans, don’t ever think about climate change. So their comedy is about dick jokes or whatever it happens to be about. Their comedy doesn’t really touch on it” Rives, in describing his performance (which is not primarily comedic) described a more elegant side to this category saying: “As a matter of personal taste and focus, I try to stay far and clear away from the "I/we know better than you" approach to art and activism. And not just because I find the approach ineffectual. I simply hope my taste and focus are occupied with what I simply hope is my job: romance and the timeless longings that surround it.”

This group would represent the “uninterested” far extreme of the spectrum I established.

In summary, comedians who did not talk about climate change described a wide range of reasons as to why they didn’t talk about climate change. Some of them were “open” to the idea of talking about climate change but either had not found a reason to or felt external pressure not to. Others were not particularly interested in addressing the topic because of its political nature, polarizing effect, or simply boringness to them. However they all had in common a lack of major personal investment in the topic as described by the comedians who did talk about climate change.

This is in contrast to all of the comedians who did talk about climate change in their comedy who did so because it was an issue that they were personally invested in or had opinions about. Next I

will talk about those groups. I argue that they differed based on their degree of commitment to the topic and fit into the categories of “opportunistic”, “Committed” and “issue-comedian”.

The first group, labeled C on the diagram, is the group I am calling “Opportunistic”. They would only talk about it when there was a clear and unmissable opportunity to be funny. I spoke to one comedian who demonstrated this approach. This group differed from the first two groups because although the person had opinions about the topic, there was less personal investment in talking about climate change and therefore less of a willingness to do extra work to try to find a way to make the topic funny and bring it up.

Steve Bodow

“Its something that we’ve talked about over the years but not one of the things we’ve talked about a ton.”

“For us we have things to say but if we cant make them funny then we will not, were not going to put them on the show because that’s what this show is not because everything needs to be funny in the world, but our thing does, that’s what we do.”

“I know the next climate change report is coming out I think next week. So were keeping an eye on that and just as importantly on the reaction to that to see what they say and how that gets spun and if we think that there is something absurd or worth making fun of in all of that then well do it. If there’s not, if the report is straightforward and there is not a lot of push back to it that we probably wont do anything about it, not because its not a worthy topic but because it doesn’t suit our show.”

This demonstrates a higher commitment to humor than to information conveyance, Bodow was also quite clear about the primary goal of bringing up climate change when it did come up being related to communicating opinions and not at all an educative mission.

The second group, labeled B on the diagram, is the group I call “committed”. They were highly invested in the issue of climate change and often included it in their work. They differed from the last group (A) in that their primary motivation for doing comedy was not communicating

information about climate change, but from the first group (C) in that they would make an effort to include climate change in their comedy even when they perceived it as being difficult to include or potentially detrimental to their career. I interviewed three comedians who fit into this category, although they differed in their beliefset about climate change, they were similar in their commitment to talking about the issue. They each described being personally invested in the topic and therefore motivated to put effort into talking about the issue even when it was difficult to find a way to make what they wanted to say funny or was backfiring in terms of how people responded to their treatment of the subject.

Chris Kelley:

“You know its one of ... Bill’s sort of obsessed about it.”

“Our show is atypical about that in that we would, especially with climate change, with that one we start from the messaging and try to find some way to make it funny. Because I guess, for Bill it’s one of those issues. but there are a lot of places where we’ll start from something we think is funny. like we’ll do.. the Vatican does a magazine about exorcisms and we think that’s sort of funny and that’s where. We see a news story and think we can talk about this because its funny, but with the environment with Bill it almost starts from we have to talk about this let’s find a way to make it funny.”

Bengt Washburn –

“I do quite a bit of material on the topic, but it’s tricky.”

“I’m really obsessed with it. I’m obsessed with the human behavior I see around it on both sides, I find it crazy, and usually all of those things are funny, and they *are* funny. I have 15 minutes of material, and its funny, that I can get both sides to agree on”

Tim Slagle:

“When I think of political topics that interest me, global warming is right up there”

“As a comic my goal should be to make people laugh, I wish I could say that I’m one of those guys where I don’t care what the position is but I do kinda have an opinion and usually its an anti authority, and they decided that the pro climate change legislation side tends to feel like they have the authority on their side for me that’s a ripe topic for mocking”

“I always kind of thought that that behavior would be rewarded.... Yeah I was wrong”

This group is very interesting because it includes comedians who are skeptical as well as comedians who are in support of the consensus ACC opinion. It demonstrates that there are comedians who will take a strong effort to communicate something about climate change and are invested in it beyond just the laughs that it could produce, and that they seem to feel that their personal investment in climate change verses just laughs is somehow against how they should feel as a comedian.

The final group, labeled A on the diagram, is the group I am calling “issue comedian”. These were comedians who explicitly focused on an issue and described talking about and giving information related to climate change as being the primary reason they did comedy. Two of the people I interviewed fit in this category: Yoram Bauman and Brian Ettlign. Both of them are “issue” comedians who focus on a particular subject: Bauman’s website advertises him as the “Stand Up Economist” and Ettlign’s as the “Climate Change Comedian”, they both described communicating information about climate change as being the focus of their comedy.

Dr Yoram Bauman:

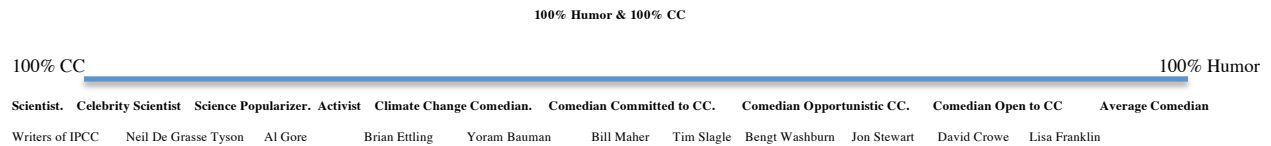
“To some extent, I do comedy so that I can talk to people about carbon pricing.”
 “I do like to have a message when I do my comedy routines, and while there are some academic or intellectual content in my economics routine I feel like the climate change part of it is the part that I focus on.”

Brian Ettlign:

“The most important thing for me is the education”
 “You have to be informative, its not a clown show, its not just entertainment, I’m there to inform an audience”
 “For me if I have to err on one side I do want it to be serious.”

This group is set apart by their high commitment and personal investment to talking about climate change. They represent the middle ground of the spectrum that I established and

demonstrate that there are in fact comedians who are just as committed to being funny as to communicating something about climate change¹⁵.



What determines a comedian’s position on this spectrum? I argue that personal interest in and commitment to climate change is the primary determining factor of whether or not a comedian will talk about climate change. Comparing Chris Kelly’s description of Bill Maher from group B with Steve Bodow’s description of Jon Stewart from group C demonstrates this point because they have similar positions in the comedy world but different approaches to how hard they work to include material on the topic of climate change in their show. The difference in coverage can thus be accounted for by the difference in their personal motivation rather than their position in the comedy world.

Bodow describes the role that Stewart plays in determining what is on the show saying, “It comes down to Jon pretty much most of the time. He has final cut on all of the scripts and he is the one who ultimately determines [what gets in the show]”. He also talked about climate change as “something that we’ve talked about over the years but not one of the things we’ve talked about a ton” and that their general approach is “we have things to say, but if we can’t make them funny then we will not put them on the show”

This is compared to Kelly’s description of Bill Maher’s approach saying that “Bill’s sort of obsessed about it [climate change]” and that therefore “Our show is atypical about that in that we

¹⁵ It is important to keep in mind however, that this simply reflects these comedians’ ideas of their own intentions. It does not necessarily correlate to the success of their comedy. A point to which I will return

would, especially with climate change, start from the messaging and try to find some way to make it funny. Because I guess, for Bill it's one of those issues. ". This comparison between these two cases demonstrates that when comparing comedians in similar positions in the comedy world, the determining factor of how much they talk about climate change is their personal investment in the topic. Maher is "obsessed" with climate change and therefore is "atypical" in that they prioritize a message and work to make it funny whereas Bodow describes a process where the ease with which something can be made funny is the higher priority than the message related to climate change. The difference between the two of them seems to be their personal investment in the topic.

This point can be demonstrated amongst a different group by comparing Yoram Bauman and David Crowe. Both David Crowe and Yoram Bauman are moderately successful stand-up comedians who describe performing for conservative corporate audiences. However Crowe does not talk about climate change and Bauman does.

Crowe talks about performing for corporate audiences and not wanting to take risks of forcing uncomfortable subjects like climate change onto the audience. He says, "for me personally I have a child and bills and if I started, maybe I could pull that off, but boy, being able to take care of my kid is really something very real to me too" and describes that "it's harder once you are in the mindset of pleasing the person who is writing the checks". Crowe demonstrates very valid concerns that keep him from talking about something like climate change.

Bauman demonstrates however, that the concerns of that Crowe articulated can be overcome when a comedian has a very high commitment to talking about climate change. He says "Corporate events hire me to do economics comedy, they are not hiring me to stand up there and lecture them about climate change... I need to make sure that I am doing what they hired me to

do because they are the client and this is how I make a living” however, he talks about using his platform as a way of talking about climate change: “if you make people laugh for 50 minutes, you can kind of talk to them about whatever you want for five or ten minutes and they’ll forgive you” and describes the portion of his routine as “what motivates me especially with the corporate audiences I talk to [that] tend to be fairly conservative audiences like the Florida Banker’s Association and the Barry Goldwater Institute. They are people who are outside of the fire of climate change. I enjoy talking to those groups about climate change I think that it is value adding for the world.”

It seems that the reason why personal investment is the determining factor in whether or not comedians talk about climate change is that there are so many reasons not to talk about climate change in a comedic setting, that only people who are very committed to talking about the issue will go through the effort required to make the topic funny and bear the consequences of bringing it up.

So far in this section I have argued that climate change is not a common topic in the world of comedy and that whether or not and how much a comedian talks about climate change in their comedy is determined by their personal investment in the topic. This brings me a step closer to understanding the spectrum I laid out before between commitment to humor and commitment to communicating about climate change. My results discussed in this section are incorporated into the spectrum here where we see how much a comedian is committed to talking about climate change vs being funny. These results show that there are comedians who are operating within the space of high commitment to both humor and climate change.

100% Humor & 100% CC

100% CC

100% Humor

Scientist. Celebrity Scientist Science Popularizer. Activist Climate Change Comedian. Comedian Committed to CC. Comedian Opportunistic CC. Comedian Open to CC Average Comedian
Writers of IPCC Neil De Grasse Tyson Al Gore Brian Ettlign Yoram Bauman Bill Maher Tim Slagle Bengt Washburn Jon Stewart David Crowe Lisa Franklin

This demonstrates some exciting information about the various levels of commitment that comedians have to talking about climate change, but it doesn't give us information about the content discussed in their humor and the approach they take to discussing it. In the next section I will talk about what comedians talked about when they talked about climate change.

Chapter Four. Humans not Science: What Comedians Talk about When They Talk about Climate Change

My next main finding was about the content of comedians' interactions with climate change.

Here I will address the fifth question I outlined: What content do comedians talk about when they do talk about climate change? My hypothesis going into this project was that there would be people who were performing comedy about the science of climate change, I imagined them anthropomorphizing greenhouse gases, finding clever metaphors to talk about feedback loops, and using the format of standup comedy to explain the science of climate change. This hypothesis was wrong. None of the comedians I spoke with focused their comedic material on explanation of climate science. In their opinions, the laughs were not in the science. The themes that emerged were that the science of climate change is too complex, boring or depressing to the average person to make funny.

The word "boring" came up in many of my interviews with comedians. When it came up it was in reference to climate science and the typical forms of communication of climate science.

"It's largely dealing with the science of it which is inorganic, its not human it's dealing with all the physical properties so that automatically makes it hard to relate to... and is [typically] approached in such a boring manner ... no narrative structure to it, just 'and, and, and' and it bores the hell out of everybody"- Randy Olson

"My whole life, I've been a science geek so for me its fascinating... some people are bored through science though" - Time Slagle

"Climate change itself is not what's funny. That's not where the laughs are... I mean there is nothing more boring than even just the words climate change in a comedy club"- David Crowe

"You need something like a meme that can go viral and appeal to the average person, the everyone... it's not about the science. No one cares about the science" (Juan Enriquez)

"All this stuff [environmental media] that is coming out, I find it so boring... its just not working, we need new ways to make stories"(Jenn Galvin)

This is very strong and consistent language that demonstrates that people associate the science of climate change and the typical modes of communicating around it with boringness.

The idea of complexity also came up often as the reason why people avoided talking about the science of climate change in humor. It was described as a barrier because people struggle to understand complexity and that humor struggles to accommodate complexity.

“People don’t understand scale.... yet with a topic like climate change, we are looking at numbers in the billions. We are thinking about dynamic systems. The movement from global warming to climate change was necessary because in dynamic systems you are talking about fluid dynamics, you are talking about stuff that is so radically difficult to comprehend that even the people who comprehend it don’t have an overall metaphor, they have years of working with local metaphors to build up a big picture so its very very difficult to put it into nice deliverable packages without having caveats, and caveats are the killers to all jokes.” (Ze Frank)

“Comedy is not usually that complex it has to be quicker and surprising. There’s not room to be complex. You know what I mean? I can’t do a joke about c02 levels today vs. c02 levels in the Devonian age... that wouldn’t be funny. Its just gets too bogged down in fact and then people start “well he’s just lying”, its better if I do emotional expanses. Verifiable things, things that are numbers and statistics, ugh you can make them sound whatever [way you want] ... we all know how easy those are to just push around” (Bengt Washburn)

“Even though there are a couple of jokes in my climate change routine, for the most part I spend a few minutes being serious. Its not like not laughs every 20nd seconds which I try to do with the rest of my routine” (Yoram Bauman)

This was interesting because it suggests that are limits to comedy’s ability to communicate technical, extensive, or complex information about climate change and climate science. Even the person that I had lauded in the previous chapter as the “issue-based” climate change comedian, did not describe making humor about climate change, but rather speaking seriously about climate change in his otherwise humorous setting. This suggests that there are limitations to how funny you can make serious information about climate change.

This point is confirmed by the other main reason that people described climate science as not being the way to talk about climate change in comedy: the news is bad and its always getting worse and therefore is hard to make funny.

On TV everything is about a problem being solved...there's only so many times you can go on TV and say, and the news is always worse no matter how bad the [original] projection is, the only news as a premise is 'we just found out its worse' – Chris Kelley

“Talking about climate change is like talking about the national debt, only we can actually do something with the national debt. its hard. It's hard to make it funny and its hard to make it interesting” – Chris Kelley

“We don't do a lot of headlines about mass extinctions, there is not a lot there that is funny, it's just a great big tragedy.” – Steve Bodow

This is an interesting and common opinion that dovetails well with the “sober skeptical” reaction that I discussed in my introduction. My interviews suggested that people were generally wary of the possibility of finding humor in this “tragic” situation as the appropriateness of doing so. Baratunde Thurston and Ze Frank both talked about how there are people who just don't want the jokes to be there at all, and that liberal, climate change concerned audiences were hostile at times to their comedic attempts to address climate change with humor even though neither of them are skeptical of the consensus ACC opinion.

So if people were not using humor to talk about climate science in a head-on explanatory way, what were they talking about? According to my interviews, the humor was found in the missteps of the enemy to whatever viewpoint the comedian held, the tangents/details related to climate change, and the absurdity of human behavior related to the topic.

The first and most common way that comedians addressed climate change in their comedy was by making fun of someone who did not share their opinion. Chris Kelly described this saying:

“You can make fun of your enemies. It is the easiest way to talk about climate change

comedically. It's harder to talk about in terms of what can we do..." - Chris Kelly

"So many of the arguments against climate change are built on crummy logic and crummy humor. There actually talking points that are easy and comically satisfying to refute them." - Chris Kelly

This suggests that ridiculing an enemy is the most simple way of talking about climate change and communicating some viewpoint of opinion in comedy. Bill McKibben supported that thought and viewed this ridiculing force as the most important tool that comedians can offer to the climate movement:

"The fossil fuel industry and its political spokes people are contemptible buffoons... these guys... are targets too juicy to ignore. These guys are willing to sacrifice the future of the planet to make a short-term buck. That's about as ridiculous of a proposition as you can get. Because their position is so scientifically untenable they are force to do or say very crazy things in the prosecution of their greedy task. So they are forever announcing that climate change will be good for the planet of that plants love carbon. So you know its just kinda funny any time you have someone rising on the floor of congress day after day to insist that black is white. That's either just... its pretty funny." Bill McKibben

"The most important role [of humor in climate movement] is to help kick down and subvert the powerful people and institutions that stand in the way of making progress... earnestness only goes so far, so its very useful as well to have some well deserved ridicule for these guys" – Bill McKibben

Those quotations suggest that a powerful force according to a very powerful person in the climate movement, is the potential for comedy to ridicule and attack the people who stand in the way of action on climate change. It also seems that this ridiculing force serves to bolster up the activists and people working within the climate movement as well:

"Humor is an important tool about communicating about some of the ridiculous things were facing. I'm thinking about the meeting I just got out of the campaign I'm working on right now. They readily admit to 500 years of water pollution and its hard not to look at that and laugh at some level. When I talk to them about it we always kind of chuckle about it it's so ridiculous and absurd that you have to laugh. Its a little bit of a, for me, this is so fucked up laugh, its a little hopeless and its also a little derisive, what are these people possibly thinking laugh, 'how is this even a conversation we're having, I can't believe I just dropped all my papers in a muddy puddle'-laugh" - Lucy Sedgwick

This suggests that humor can be used to make a point about how ridiculous someone who stands in the way of climate change action is as well as act as a coping mechanism to help activists within their own group have a healthy outlet for the challenges they face.

These quotations have demonstrated that making fun of enemies is one of the main content-matters of jokes that comedians make about climate change. I will discuss further later the different ways these jokes are structured and some of the pro's and con's of this ridiculing humor.

The next common content matter was also a form of ridiculing, however this was not directed at an enemy that the comedian distinguished himself/herself against. Rather this was a form of generalized ridicule in which the comedian also focused on ridiculing themselves.

“I’m really obsessed with it. I’m obsessed with the human behavior I see around it on both sides, I find it crazy. And usually all of those things are funny. And they are funny. I have 15 minutes of material, and its funny, that I can get both sides to agree on, In other words, I make the comedy about our reaction to the science and the global warming, human behavior, rather than focusing on yes it’s going to happen no it won’t happen. I talk about either way we sure are funny when we talk about it and deal with it, see what I mean, I don’t come from a position of I know what’s goanna happen. When I do comedy I do it that way I try not to present answers I try to question other people’s answers.”

“I became obsessed with it and saw my own obsession and then I saw that my obsession was ridiculous and that my emotional reactions were ridiculous and then other people’s reactions were ridiculous and then I saw in that, well this is funny” - Bengt Washburn

This shows that there is humor in the human obsessions or behaviors around this topic and that comedians can make fun of themselves as an entrance into the topic that might be less polarizing and able to communicate some message as well, but might be more a force for questioning than for clear communication.

The last general category of content that comedians talked about when they talked about climate change were the details and tangents related to the issue. Crowe talks about this saying:

“The funny parts of anything are in the tangents. The funny parts [of climate change] might be people drilling holes in the Greenland icecap... ‘You are a PHD, you went to school for 27 years, got a doctorate, and your job is to stand on the frozen tundra and drill holes...’ You talk about something, specific, small like that. The humor is in the details, then you can talk more about the subject in the subtext, it’s all about lubing up your finger and wiggling it in there.” - David Crowe

This suggests a more creative and difficult approach than the easy set up of ridiculing an enemy or yourself. That if you think about metaphors, stories, details and tangents there is humor to be found that might subtly lead to a point or message about climate change. Chris Kelly describes an instance in which he and Bill Maher used content like this:

“We just did an editorial just before we went on break just a few weeks ago and the main thing the editorial was about was micro targeted news, but what Bill [Maher] wanted to talk about, what he wanted to get to was jellyfish... Because you can happen to not read any stories [about a topic] because your news feed will show you what you want to see, so he hadn’t seen [anything about the jellyfish] except something I had handed him that the ocean had changed so much that the jellyfish population was increasing while everything else decreased. And Bill’s idea was that that’s something people should hear. But you could see that as a comedian he thought that that would be a funny way to talk about it. Because if you’re saying the ocean’s going to be full of jellyfish, there’s more comic potential for that, that’s a way to make it more vivid than just to talk about coral bleaching.” Chris Kelly

This demonstrates the creative and roundabout details and tangents that a comedian might explore that may or may not lead to some direct point about climate change.

My findings in this section are that when comedians address the subject of climate change in their comedy the laughs are not in the science. The science is too boring, complex and depressing to make funny, rather the jokes they make are about the human behavior around climate change.

Climate change was thus not being treated as a scientific issue by comedians regardless of whether or not they agreed with the scientific consensus on ACC. Furthermore, it was not just that comedians didn’t treat the science of climate change in their comedy, they also didn’t seem

to view it themselves as primarily a scientific issue. Instead they viewed it as an activist “cause” or as a “political” issue.

“I don’t have a unique view on climate change verses anything else that people want to see happen in the world.”- Baratunde Thurston

“Climate change, I would lump into a category.. it’s caused based media” – Ze Frank

“When I think of political topics that interest me global warming is right up there.” – Tim Slagle

“I’m going to file Climate Change, broadly, as a ‘Political’ topic in contemporary America (not yet ‘Popular Culture’ and certainly not ‘Cultural’)” – Rives

This was fascinating because it means that the personal framework and comedic treatment of climate change did not primarily engage with science or view climate change as a scientific issue even though the message of the joke was necessarily in some way referencing science in so much as climate change is necessarily a scientific topic because all that we know about climate change is through science. Ze Frank describes this paradox saying:

“With climate change you are dealing with such a complex system and there is very little to grab onto in that model. You can talk about very specific things or people not taking action or when that evangelist blames homosexuality for something that we know is part of that other system. That’s convenient because all you need is that notion of another system and then what he said. but when you are just tackling this broad thing its much harder.” – Ze Frank

This indicates that climate change in comedy is functioning as a black box in the sense in which Bruno Latour (1999) uses the phrase. This is to say that most comedians are not interacting with the complexities and internal mechanisms of the science of climate change, but instead are treating “climate change” and “scientific consensus” as a simplified concept and black box that can only be referred to as a settled and complete unit in contrast to something else. The only people I spoke to who defied this “black boxing” were the two more conservative and skeptical comedians I spoke to Tim Slagle and Bengt Washburn. They were the only people who spent time in our interviews talking to me about science and stating figures and described moments in

their comedy where they would bring up specific scientific figures to refute them. Tim Slagle described material he does which talks about the discrepancy between sea level rises predicted in the IPCC report and those that Al Gore uses in his movie. It is interesting then to see that the comedian who was most skeptical of the science of climate change was the only one who was performing about the science of climate change and in so doing was trying to resist the black boxing of the science of climate change and continually expose and examine the internal workings of the theory of ACC. Whereas the liberal comedians were using ridicule and narrative to preserve and defend an unquestioned, undisturbed treatment of the science of climate change as a black box.

In this section I have discussed the content that comedians included in their treatment of climate change when they did talk about it. I argued that comedians did not deal with science but instead made jokes about their enemies, themselves, and the details and tangents related to climate change. I found that the comedians were not treating climate change as a scientific topic but instead were viewing it as a social cause and a political issue. Furthermore I found that it appears that liberal comedians are predominantly treating climate change science as a black box while the conservative comedians I interviewed were attempting to complicate that.

Next I will discuss how comedians went about structuring their material and engaging with this topic.

Chapter Five. How Comedians Approach the Topic: An Analytic Framework

In this section I will address questions six, seven, and eight that I laid out:

6) How do comedians approach talking about the content of climate change in their comedy?

7) What are opportunities afforded by and risks inherent to each of these approaches?

8) What determines which approach a comedian will use?

How did comedians approach structuring comedic treatments of climate change when they did?

Here I will argue that there were five common approaches to structuring comedic treatments of climate change used by the comedians I interviewed and analyzed. I will argue that these can be clustered based on how they position humor relative to message about climate change. I will discuss the categories, give examples of them, talk about the risks and benefits of each approach, and which positions in the comedy world can best accommodate the approach.

In order to classify the approaches, I align them along the intersection of two spectrums: humor centric to humor secondary; and message explicit to message implicit. The phrase “humor central” here refers to a piece of media that is primarily humorous whereas “humor secondary” refers to a situation that is not primarily humorous. By “message explicit” I mean a situation in which the message that is being communicated about climate change is explicitly stated by the comedian, while in “message implicit” I mean that any message contained in the joke is implied through satire, narrative or tone, rather than explicitly stated and that therefore there is a gap between what the comedian says and the point the comedian may be wanting the audience to take from the joke.

	Message Explicit	Message Implicit
Humor Central	Explicitly Lampoon the enemy Serious Moment in an Overall Humorous Setting	Satirically ridicule enemy Subtle Treatment of Relevant Material

Humor Secondary	Humorous Moment in an Overall Serious Setting	Failed attempts / Bad Practitioners
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1) Message Explicit & Humor Central: *Explicit Attack: Lampoon the Enemy to the Face*

I call this first group: “Explicit Attack: Lampoon the Enemy to the Face!” This approach most commonly involves an explicit reference to climate change which is made by refuting and ridiculing what someone else had said or done about the topic, it pairs with the “making fun of the enemy” content topic category I talked about in the previous chapter. When successful this leads to a ridiculing laughter ie “Look at how Dumb/Absurd/Bad That Person Is!” This is one of the most common approaches to talking about climate change in comedy as previously discussed.

Jon Stewart typically uses this approach when he addresses climate change on The Daily Show. Examples of his work that uses this approach are The Global Warming Hoax¹⁶ and the War on Carbon¹⁷ segments of his show. Bill Maher also uses this approach often: Bill Maher on Climate Denial¹⁸ , Bill Maher: Creationists and Climate Change Agnostics¹⁹ . Chris Kelly talked about Maher’s use of this approach saying that climate change is “a place where mean comedy can really work, because so many of the arguments against climate change are built on crummy logic and crummy humor. There are actually talking points that are easy and comically satisfying to refute them”. He went one step further to say that in refuting bad arguments with this type of humor “you can provide people with the ammunition against specious facts”.

¹⁶ <http://thedailyshow.cc.com/videos/4bdpjs/the-global-warming-hoax>

¹⁷ <http://thedailyshow.cc.com/videos/r8c9ac/war-on-carbon>

¹⁸ <https://www.youtube.com/watch?v=piZGcH3Q9Zo>

¹⁹ https://www.youtube.com/watch?v=veYPRi_ZMhs

The specious facts that come under attack fall on both sides of the debate on climate change. Two people I interviewed discussed using this form of humor to ridicule global warming “alarmist” opinions. Tim Slagle talked about ridiculing Al Gore for being sensationalist in his discussion of sea rise: “A Tribute to Al Gore”²⁰. Bengt Washburn talked about being stuck between two really irrational loud screaming places” one that was saying that homosexuals caused Hurricanes and the other saying SUV’s caused them.

Benefits of this approach are that it is very funny if done well. To your audience, it can give a one-liner myth-buster easy to remember factoid that they can use later as ammunition against the opposite opinion. For the comedian, it makes a convenient entry point into affirming climate science without ever having to explain or defend it, because the joke is just to say that the climate denier is wrong. There has been ample material for this type of joke because of how often the anti-climate side is forced into saying scientifically inaccurate things, and the environmentalist communities use sensationalized language. Shows like TDS and CR commonly employ this approach because they respond to news clips from other shows and thus make fun of things that happen in the news that are anti ACC. As Bill McKibben was quoted earlier saying, this approach can be very important to direct some deserved ridicule at the forces which are standing in the way of change for the climate movement. This can also serve a purpose of rallying supporters by creating “enemies” in the movement.

The drawbacks of this approach are that it has the potential to be highly polarizing and is unlikely to change anyone’s mind on the subject. Furthermore, it perpetuates an antagonistic framing of climate change and can backfire in front of a divided audience or one that does not agree with you. It also can get old, as Chris Kelley said about this type of comedic approach:

²⁰ <https://www.youtube.com/watch?v=YWFbjBwEGfM>

“We used to book climate change deniers and that got really depressing. there was no moving them and the pleasure of it went away. I think Thomas Huxley said, ‘there’s only so much pleasure you can derive from beating a dead horse.’ - Chris Kelly

Randy Olson described the danger of this approach saying:

“The fundamental rule of story telling is that your story is only as good as as your villain is evil. The environmentalists get caught up in that in trying to find villains that everyone can get motivated against and the unfortunate thing is that it sweeps them into distorted storytelling where they’re sort of telling lies at some point. and so yeah its just not as simple these days ... these things are complicated stories and its distressing when people try to come along trying to greatly simplify them for entertainment value”

I think that this critique is linked to the earlier discussion about black boxes and Latour. That one impulse of liberal comedians and environmental narratives is to create and attack enemies and therefore defend the “black box” of climate change science in ways that might not actually be accurate.

This approach necessitates a sympathetic audience to succeed, as the audience needs to be open to laughing at the person/thing being ridiculed in order for a comedian to use this approach. The positions that allow comedians to most successfully use this approach are thus when they are “in their own church” ie in front of a sympathetic audience that shares their viewpoint on climate change. This approach can also be used in running targeted campaigns related to climate change such as the political attack ads described later which are less concerned about polarizing an audience than about ridiculing an opinion.

2) Message Implicit & Humor Central: *Implicit Attack: Side Swipe the Enemy from Behind*

This approach functions similarly to the previous group, however the message is implicit rather than explicit. In this approach, satire is used to implicitly show the opposing view to be untenable. The inaccurate view is impersonated (usually with exaggeration) to make for an implicit ridicule rather than explicit refutation. Colbert is the most famous practitioner of this

approach. The political campaign videos that Miriam Fogelson helped create also used this approach.

-- F*ck science²¹ video featuring W. Kamau Bell

-- Science Fair Nightmare²² – League of Conservation Voters video featuring Adrian Grenier

The pro's of this approach are that it is very funny if done correctly, that because the message is implied rather than explicit it can appeal to a wider audience and can reveal the absurdity of a person or a viewpoint without being preachy. Some of this risks to this are that it is more open for misinterpretation, can be prone to exaggeration, and is likely to be offensive to those who are being ridiculed and thus can be a force for further polarization. We see in the case of the recent #cancelcolbert event that satire if taken out of context or misinterpreted can have immense backfiring and political fallout. It is unclear whether or not this approach has the same "beating a dead horse" characteristic as the previous category, it seems that it might be less tiresome as it involves more creativity and absurdum, however it is possible that it might.

Similar to the first category, the positions that allow for this are comedians who perform in front of sympathetic audiences and targeted political attack ads. However, it seems that this approach might be able to reach a wider audience than the previous approach. This is evidenced by a show like The Colbert Report which draws both conservative and liberal viewers and always has room for ambiguity in which the audience can never know exactly the message the comedian is making if, like Colbert, the comedian does not break character.

3) Message Implicit and Humor Central: *Sneak up on the subject in a subtle way AKA lube up your finger*

This approach does not explicitly talk about climate change, rather it goes on a comedic exploration with an implied message. It works through comparison or metaphor and frames a

²¹ <https://www.youtube.com/watch?v=jlsjbQCptF0>

²² <https://www.youtube.com/watch?v=7NMTzNazfTI>

familiar subject in an unfamiliar way and pairs with the “details and tangents” set of content discussed in the previous chapter. When done well this approach produces an “Aha!” moment that some call vital insight humor. One example of this approach as used by a comedian I interviewed is David Crowe’s [Gassoholic](#)²³ which takes the audience on a journey through energy use with the analogy of a petroleum addiction. Crowe never says that gas is bad or people shouldn’t drive and there is no clear message in the clip, rather the bit functions as a metaphoric exploration of the relationship between energy use and drug addiction and in doing so has the potential to have a message or an affect on the audience. Crowe mentioned the aforementioned tangential joke about finding a humorous entrance into climate change by talking about PHD students on the ice drilling ice cores as another example of such an approach. Similarly, the example I gave of Chris Kelly talking about targeted news and jellyfish as a way to have a message about ocean acidification is another example of this approach. There are no iconic comedy bits that do this for climate change, but classic examples of this approach at its best are in the hands of Chris Rock and Richard Pryor on the subject of race: Chris Rock discussing racial inequality in America through the difference between white and black [C-Students](#)²⁴ and [slavery](#)²⁵ & Richard Pryor on [racism](#)²⁶ and the N-Word.

This “vital insight” humor is incredibly powerful and funny when done well. It can get someone to listen to you who might not agree with you or want to hear you and thus is a tool for reaching new audiences and gives the possibility of conversion of opinion. It gets someone to look at something in a new way, make a new connection and crystallize a new logic. However, it is very difficult to do well. It is typically incompatible with a specific/explicit message and

²³ <https://www.youtube.com/watch?v=7ieJpOoFRXs>

²⁴ <https://www.youtube.com/watch?v=qLYcrLYTeA>

²⁵ https://www.youtube.com/watch?v=z2WyxRHJd4&oref=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3Dz2WyxRHJd4&has_verified=

²⁶ <https://www.youtube.com/watch?v=fmfwNyjme-Y>

certainly is incompatible with any call to action. It is also open for interpretation: because of its subtle nature, not everyone is going to interpret the material the same way or even perceive it as being about or related to climate change.

This approach can be used by a wide range of positions because it does not have the polarization or audience backlash risks of more explicit approaches. Stand-up comedians are in a good position to use this approach because they have the option for a long narrative monologue that isn't tied to visual effects or clips from current events unlike the comedy news shows are. However, you have to be incredibly skilled to do this well, and there appears to be an inverse relationship between clarity of message and hilarity of bit in this approach. As David Crowe explained: "I would argue that as soon as social change becomes the agenda, people sniff it out" that the success of this approach is based on letting the comedy do its work rather than forcing a message.

4) Message Explicit & Humor Secondary: *Moments of humor in an otherwise serious context AKA lube up the audience*

This is the approach most often used by science communicators. It involves a moment of humor in an otherwise serious context. In this situation, the subject of the humor is usually not related to climate change. The joke is functioning as a social tool rather than as an informational tool. It is used to relieve tension or create connection between the speaker and the audience. An example of this approach is Al Gore's use of jokes in *An Inconvenient Truth*. I have included this approach also because as it turns out, Brian Ettlign's approach to humor in his "climate change talks"²⁷ more closely fit this model than anything else. Ettlign uses themes, costumes, and jokes to create a compelling thread and humorous moments in his talks about climate change which are primarily information driven. It is debatable therefore, whether or not the term "comedian" is

²⁷ <https://www.youtube.com/watch?v=h7S2eagqt0Y>

actually appropriate for Ettling, something that he seems to acknowledge on his website in a post that answers the question of why he calls himself the “Climate Change Comedian” and not a “Climate Change Educator” or “Climate Change Communicator” which were other options he considered:

“Well, that is the closest to what I want to do: communicate about the problem of climate change and educate people on the solutions. However, neither of those titles has enough pizzazz for me or appeals to my sense of fun. How about you? “

This suggests that the title of comedian was more aspirational than actual in so much as Ettling’s goal was never to be a comedian but rather to have a fun approach to communicating about climate change as is associated with a word like “comedian”.

The benefits to using this approach ie humor in an otherwise serious setting are that it can make a trusted speaker more likeable, lighten the mood, ease tension and relax the room as a break from an overall experience that is focused on explicit and clear communication of information. However the drawbacks are that this, like traditional science communication or climate change communication, is unlikely to draw new audiences. If the moment of humor is a brief deviation from a typical structure which may be boring, it is unlikely to be very impactful, and if the content and delivery of the humor isn’t well paired with the audience it may backfire and offend people who don’t think that humor and climate change have any room in the same talk. This is especially true because any audience who would show up for a talk that is explicitly and seriously about climate change are also more likely to be touchy about using humor in relationship to the issue.

This approach is accessible mainly to experts who already have credibility and the attention of an audience. Brian Ettling’s work would be worth further research to see if he, through using the title “Climate Change Comedian” is able to draw more attention or create more impact for his talks than someone who is marketing themselves primarily as a serious educator.

However, I would hypothesize that someone prioritizing information rather than humor, will find it difficult to get the attention of an audience unless they have large personal credibility or a pre-existing position of power like Al Gore.

5) Message Explicit & Humor Secondary: *Moments of seriousness embedded in an otherwise humorous context: AKA Pill in the meat ball*

This approach embeds seriousness within an otherwise humorous context. In the world of stand-up it takes the form of comedians who build a serious moment into their comedy routine. In the world of comedy news it takes the form of guests who are invited to the show to talk about something serious.

Yoram Bauman's aforementioned 5-minute serious segment on climate change within a 50 minute talk is an example of the former version of this approach. In contrast to Ettling who was the other issue based comedian that I interviewed, Bauman's approach is more clearly comedy-based. He describes it as:

“The pill that you put inside the ball of meat that you give to the dog. The ball of meat is the comedy.... usually I'll tell jokes for 40 minutes and then I have a nice segway that gets me to the climate change stuff, then I'll do that [the climate change pitch], then tell jokes for another 10-15 minutes”.

This is a hybrid model of serious explicit information about climate change and humor. Part of the reason that I imagine Bauman is able to take this approach is because his humor is primarily stand-up comedy about economics and the pitch that he gives about climate change is a specific economics-based discussion of the argument for a carbon tax, rather than some informational treatment of climate change science or politics in general. I would hypothesize that the economics comedy that Bauman does in the rest of his act sets him up as a credible voice about

economics issues, and the non-polarizing, non-political, and non-scientific approach he takes to talking about a very specific issue related to climate change (carbon tax) is what lets him pull off this approach.

Another very different model for how this approach can work is the case of authors and activists who are brought on to comedy shows. Specifically I will discuss the example of Bill [McKibben on Colbert](#)²⁸. In this case the humor central context is The Colbert Report as a show and Colbert's continued in-character presence throughout his interview with McKibben. The explicit message is provided by McKibben who does not focus on being funny, but rather focuses on clearly communicating information:

“My sense on these things is always that their job is to be funny, your job is to get across your information, and it seems to work better that way. Not to worry about being funny because they are plenty funny enough”

This approach is good for reaching new audiences, getting people to listen to you who might not want to, and conveying explicit and clear information. It is unlikely to be misinterpreted as the information is clearly and explicitly articulated.

The limitations of this approach include that because it is a break from the humor, people might tune out. It is also limited to how much content can be put in because the focus of the entire media experience remains comedic. Additionally, the audience might perceive the serious interlude as inappropriate.

There is also potential for the second instance of this approach to backfire if a guest on a show gets flustered or is not able to communicate the information they want clearly. This seems particularly prone to happening on The Colbert Report because of Colbert's un-breaking character and constant satire. One example of a moment in which this approach may have

²⁸ <http://thecolbertreport.cc.com/videos/5vb30b/keystone-xl-oil-pipeline---bill-mckibben>

backfired for an environmentally related visitor to a comedy show is when Carl Pope from the Sierra Club was a guest on The Colbert Report.²⁹ It was unclear whether Pope got across the information he wanted to, and Colbert's jokes made Pope appear less than favorable.

The positions that allow for this mainly have to do with a comedian's skill. This is because the comedian's ability to get people to tune in and listen to the serious portion depends on the great success in the other portions of the comedy performance, and it seems that this approach can be used to success by any comedian who has the humor-chops and the desire to try it.

In conclusion of this section, I've argued above that comedians approach to dealing with climate change can be broken down into five categories along the two spectrums of humor central to secondary; and message implicit to explicit. I've argued that each approach has its associated strengths and risks, and that the determining factor of which approach a comedian will use (successfully) to discuss climate change is their position in the comedy world.

It is important to add that people's success in these frameworks depends on their ability to be funny or their credentials to be an expert. Comedians can leverage their skills in humor to get audiences to listen to them, politicians and celebrities can leverage their fame, and scientists can leverage their expertise and credibility. However, if someone is using an approach that is not appropriate to their position or in line with the views of their audience, they are likely to fail.

An example of where this goes wrong is with Brian Ettlting. Ettlting is trying to approach combining climate change and humor in the same way that Al Gore does, by interjecting moments of humor into an otherwise serious talk. However, he is not succeeding. He is trying to communicate in a way that there is not a market for because he does not have the expertise or credibility. When he is in his role as a park ranger he has a captive audience and credibility

²⁹ <http://thecolbertreport.cc.com/videos/yt7lh/better-know-a-lobby---sierra-club>

established. However, when he is in his role as a free-lance climate change talk giver, he is obviously struggling. Through self-branding as the “Climate Change Comedian” he is using the word “comedian” to try to attract audiences by marketing his entertainment value as opposed to his credibility. However his videos or talks are not actually very humorous, and his credentials are not actually very impressive, therefore if he employs the same techniques as Al Gore, he is unlikely to be successful, because he lacks the positionality and credibility that Al Gore has.

Even if you are using an approach that is relevant to your position, you can fall flat. David Crowe jokingly said about this, “The big advantage of being a no name touring stand-up is if you fail one night no one hears about it”. However, for people in more famous positions the risks of failing are higher. I interviewed one famous person who’s comedic feature film about climate change fell flat, and the current buzz about #CancelColbert demonstrates the risks of controversial humor backfiring.

Conclusion: Humor as a Limited Tool for Social Change

I began this project with a personal story about my quest to find a way to talk about climate change that was accurate, emotionally resonant and not grounded in the emotions of fear and guilt. My hope at the time was that humor might hold the answer to those questions. Through this project I explored the ways in which climate change is addressed comedy news and stand-up comedy. I found that climate change is not a commonly addressed topic in the comedy world because there are many forces discouraging comedians from talking about climate change. However I found that despite these forces there are comedians who were highly committed to talking about climate change. These comedians rarely viewed climate change as a primarily scientific issue, but instead addressed it as a political issue or a cause and used one of five main approaches to address climate change in their comedic material. Their approaches were limited by the position they held in the comedy world and their success was limited by their talent and luck. Now it is time to circle back around to the ideas I addressed in the introduction and think about the larger takeaway points from this research. Here, finally, I will address my ninth and tenth questions:

- 9) (How) Can comedy be a tool for social change in the case of climate change?
- 10) What further research do we need?

Beginning with question nine, as with most complex questions, I alas do not have a simple answer. Rather, my response is well summed up by the response that one of my interviewees gave about the role of humor in creating social change:

“Art and humor are a helpful ally. They can help set the stage for change but I also want to add that there is a limit to what you can directly accomplish with the world’s most amazing joke. So what I don’t want to communicate is that all we need is comedy and we’ll save the planet. I think people put a lot of burden on comedy and comedians and they set this really heavy task like, ‘ok save everything’ and its like ‘ok that’s not...’. I do think that there is a great power in humor to affect the way that people perceive an issue.

I don't think that humor alone is what the world needs to move forward. You have to couple that with organizing, good strategy, policies, and a whole bunch of other tools”
Baratunde Thurston

I choose this quotation because it implies that humor and comedians can be a force for impact in the topic of climate change, but it is not as if they hold the key to solving climate change, or to science communication’s struggles with communicating the science of climate change. My research suggests that comedy’s strength was in mobilizing a movement, attracting new audiences, ridiculing enemies, and communicating opinions and new perspectives rather than actually communicating scientific information about climate change.

In terms of the views that were reflected by my interviewees, the comedians that I spoke to were split about their perceptions about their own impact and the potential for comedy as a source of social change. Some said comedy definitely had the potential to create change and move people to new opinions, some felt that it was more of a mirror that could reflect changes that already occur, some felt that it probably only just further confused and polarized everything. Because it is not possible to speak of “comedy” as a monolithic and unidirectional force, they were probably all correct in their own way and relative to different instances of comedic interaction to climate change. Further research would be helpful in addressing the *impact* of various forms of comedy on climate change perception in different audience, as this project can only speak to the *intentions* that comedians had in their work.

In this conclusion I will point to broad areas in which comedy³⁰ can be a helpful tool in moving us forward on climate change, possible avenues of consequential humorous strategies, potential for comedians and scientists synergy, and areas for further research.³¹

³⁰ I think that here it is important to distinguish between humor as a communication tool in general and comedians as a group of media-making professionals. By this I mean that there is a difference between the ways that humor can be used as a strategy by non-comedians to communicate about climate change and ways that comedians can be engaged to address the topic of climate change in their work or use their position in the comedy world as a platform for addressing this issue.

Here are two ways humor can be a tool used by comedians or non-comedians: humor can be harnessed to attract and focus attention on climate change and to mobilize sympathetic and already-committed audiences.

1) Attracting Attention

Humor can be a tool for attracting and focusing attention on climate change in two ways:

First, in an oversaturated and fragmented online media climate, humor attracts more attention in the first place. Miriam Fogelson talked about this in her work with humorous political videos about climate change, saying “when you are in a space with so much content- they get shared more often and stand out more” than serious videos. Second, once someone is watching or listening to some media, humor can get them to stay engaged even when it is a topic they would not engage with in a serious setting:

“I think humor’s magic is getting people to listen who don’t even know that they are listening, like ‘I just came to laugh, oh shit, I learned something. What?? ouch my brain hurts I need a nap.’ That dynamic of unexpected lesson is really valuable and I think the greatest power that humor has because the other people already signed up listen to a professor or a preacher, the comedian is a little sneakier” - Baratunde Thurston

2) Mobilizing sympathetic or already-committed audiences

Humor can be used to mobilize and rally already sympathetic or committed audiences. Bill McKibben spoke about appearing on comedy shows saying, “It’s an audience worth reaching. I think they fall into that very large category of intelligent people who are concerned about those things and just need to know that there is a movement going on that they can plug into. My sense

³¹ Yet, I am hoping that an alarm went off in your head at that last sentence. Here, once again, we meet the struggle of where fact meets opinion: what does it mean to “move forward” on the issue of climate change? Embedded within any definition of “moving forward on climate change” is a subjective assessment of the desired end goal and means of achieving it. Personally, I would define moving forward on climate as anything that helps us achieve comprehensive national climate change legislation and global climate change agreements including binding targets for mitigation, adaptation, and compensation. However, other people would define it differently. For some, public awareness and understanding of climate science is of utmost importance, for others, free market solutions to climate change, or the development of energy technologies or research and implementation of geoengineering strategies is their definition of consequential movement on the issue of climate change. To move towards any of those goals, you would have a different target audience, message and desired outcome.

is that we've found pretty good bumps in traffic to our websites and things in the wakes of those appearances". Chris Kelly spoke about this saying that "politicians need the people to lead them, so the most that you can do is to keep people aware that its an issue so that you can change politics".

However, there are limits to the power of these two examples which lead me to my next two suggestions. Kelly spoke to feeling like he couldn't really change people's opinions because by the time they got to a show like Bill Maher's they were already "locked-in" to their view and that new people who were watching it who might not be sympathetic could sense that they were being preached to and thus would put up their defenses. This idea that audiences could sense when they were being preached at and would begin to reject the information being communicated was a common theme that my interviewees discussed. This preaching-radar combined with media polarization presents a limit to how much comedy can change people's minds about climate change and leads me to two different and slightly more far-fetched suggestions for how humor could be consequential.

First, the most famous stand-up comedians or some new emergent genius could come up with bits about climate change that use the third approach I outlined: the Message Implicit and Humor Central: *Sneak up on the subject in a subtle way AKA lube up your finger* approach.

which, in the hands of a genius, can lead to vital insight humor. As David Crowe said:

"I would argue that as soon as social change becomes the agenda, people sniff it out. If you go in like I wanna change the world so I'm going to write bits that change the world, most of the time in the hands of the unskilled comic, its not gonna work. But in Bill Hick's that's that in the hands of a genius."

Although this alone would not be revolutionary, it would have the potential to shift perspectives on the topic in a way that standups like Richard Pryor did for race. One potential avenue for this

is a comedian who focuses on a climate justice perspective, which was very much lacking in my interviews with comedians.

The second and most consequential avenue for action that my findings point to would be the development of institutional alliances and culture-shaping strategy around climate change. By this I mean subtle, broad range plan to incorporate climate science into non-partisan media and culture. This could take an example from or be under the auspices of the existing [Science Entertainment Exchange](http://www.scienceandentertainmentexchange.org)³² which pairs media-makers to scientists and scientific resources in order to ensure accurate scientific information in mainstream entertainment shows. Another organization to look into for models is the [Entertainment Industries Council](http://www.eiconline.org/about-us/mission-statement/)³³ who's mission statement is "To bring the power and influence of the entertainment industry to bear on health and social issues". The value of this more subtle and extensive action would be the potential to do a more delicate job of shaping people's views on climate change and diffusing the polarization about the topic by introducing it in non-polarized ways to non-partisan sources. These organizations have a history of partnering with entertainment media companies to ensure that the story elements in mainstream entertainment media are scientifically accurate. They also in some cases have developed cultural influence strategies around specific topics to use entertainment media to communicate information or shift cultural norms around particular topics. These organizations work mainly with movies and television shows, and so would represent a way that comedic movies television shows can insure that they are not spreading misinformation about climate change, and also create the potential for explicit campaigns to incorporate more information about climate change. By making climate change appear as an issue relevant to and present in the lives of characters in mainstream entertainment media, an avenue of approach like

³² <http://www.scienceandentertainmentexchange.org>

³³ <http://www.eiconline.org/about-us/mission-statement/>

this could help raise continued awareness about climate change, however it does not address the topic at hand of individual stand-up comedians and comedy news sources.

More relevant to that part of this particular research project is a third organization named [Air Traffic Control](#)³⁴. Their motto is “strategy and support for musicians creating change” and they are an organization that helps musicians and their managers use their platform and fame to support social issues. They offer information and support on a wide variety of causes. The results of their work are not that performs perform about the issues, but rather that they find ways to use their tours to spread information about or raise money for the issues that they care about. In that way, the model of approach this organization uses is most akin to the approach five that I outlined in the previous chapter, a moment of seriousness embedded in an otherwise humorous (or in this case entertaining) context. Thus far, ATC has focused on musicians, but currently the organization is exploring how their model could extend to comedians. This has a potential to be a consequential avenue of action for a comedian who is highly personally committed to climate change.

I can imagine that this could be impactful both for making climate change a voting issue in 2016. It would be impactful to have liberal comedians mobilizing liberal pro-AGW communities to move this issue up the list of voter concerns. There also is possibility for a comedian with broad appeal, and a non-partisan, maverick or conservative image, and a reputation for “real-talk” to do a tour in conservative America to help to dismantle the denial as a bedrock of modern Republican party.

ATC already publishes memorandums about particular topics, and could do one about climate change to help encourage comedians to, at the very least, do their part by making sure that they are correct about the facts amidst their desire for emotional narratives. In turn, scientists

³⁴ <http://www.atctower.net>

and science communication organizations can try to incorporate more human elements and narrative approaches to communicating their research which would in turn give comedians more fodder for their narrative based work. There is currently a catch 22 of relevance: comedians focus their work on issues that are personally relevant to them or generally relevant to their audiences, and a primary struggle of communicating about climate change is communicating personal relevance of this phenomena which is by definition incompatible with the time scales and geographic spreads of human experience. In so much as climate change activists and scientists continue to struggle to make climate change feel relevant to people, comedians are likely to continue to avoid talking about the topic. This wrongfully excludes the possibility that there are people who currently experience the affects of climate change... which is something that we know is true. In light of that, another impactful situation would be if there were a comedian in a community who is already facing climate change's impacts such as someone from a nation at sea level facing sea level rise who was a very talented comedian and was given a platform around the world to make comedy and talk about this issue. As climate change's impacts become worse, for better and for worse, there will be more people who experience it's first-hand relevance, and perhaps then more comedians who raise awareness about it.

One more hopeful way in which comedians are already creating new knowledge about relevance through their work. By diving into tangents, details and human emotions they are able, at times, to find a sideways entry point into the issue of climate change and perform metaphors and insights about climate change's relevance so, in this way, scientists, activists, NGO's and politicians might be wise to consult with comedians about communication strategies and means of making climate change tackle-able.

However, my research suggests that there are limitations to how much comedians can be mobilized to talk about climate change in accordance to a particular viewpoint. Ze Frank addresses this well. Frank describes something he calls the “comedian’s dilemma” that “once you understand what comedy is you realize that at its core comedy is a reflection on what is taboo and banned. If you really want to go after the craft and maximize the impact of it, everything is on the table”. He compares this to Nietzsche or Kierkegaard’s description of man’s fear of freedom. This demonstrates the idea that comedy is not an ethical force is at odds with the idea of espousing any viewpoint or ideology. Frank says, “if only one side of the equation is open for you ... the conservative viewpoint is where you target all of your humor and you are technically wanting to promote the liberal standpoint. Really you are dismantling something you’re not necessarily pushing something forward. It’s a really different thing to say now everything is really under the lens of humor for me. And I’m going to equally. I’m just going to play based on the things that are taboo not just necessarily the things that are taboo and unethical.”

This demonstrates as wariness of alliances, missions and viewpoints. That there will never be a clarity of voice, that perhaps it is comedy’s role to, as Fred Graver said, “muddy the waters”. This was echoed in some comedians’ insinuations that they did not have an educative or political mission. This was most notable with The Daily Show. All of the activists that I spoke to mentioned The Daily Show as something that liberal activists followed and perceived it as having impact. However, the people I interviewed from The Daily Show explicitly stated that they did **not** want to suggest that they were in any way trying to have an educative or activist mission. This was the same for The Onion. Their comments suggested that they felt that it would be a negative thing to be perceived as having an educative or political mission.

“The onion doesn’t have a political mission “- Thurston

“Mostly satire leans towards the left because it is challenging incumbency, power and capital all that stuff but I would never say that it is an activist or advocacy. I think it will choose inappropriateness in the service of a joke more than being right on all of these issues. You may think it’s on the side of scientists but if you look at all of the coverage... I might undercut myself a little bit because it is clear that The Onion editorially believes in cc he bias is in its not a denier. But look at the stuff trying to ridicule some on the right but also on the left. That scientists aren’t the most compelling messengers aren’t the most I would never say that it is political.” Thurston

“It’s certainly not the case that we have an educational mission. We have opinions and we have jokes and we want our audience to understand both of those. We will provide information depending on what the audience does or doesn’t know in order to make sure that our audience will understand the opinions and jokes that we want our audience to know. Its not an educational mission providing the information is a necessary secondary function.” – Steve Bodow

Is your show a force for change?

“Oh I’d be surprised if it were. It’s very difficult for us, sitting here in our studio, to have any sense of whether we’re a force for anything except making people entertained before they go to sleep at night.” – Steve Bodow

These quotations reveal that these interviewees explicitly do not want have their sources be seen as having an educational or political mission. I hypothesize that this has to do with audience reach and the freedom of comedy. Comedy operates by being very clever and unencumbered by typical norms and social taboos. As soon as a comedian has an alliance to hold or a commitment to a particular group or viewpoint they are no longer as free as they were. These quotations, when combined with Frank’s ideas, suggest that there may be some inherent mismatch between climate change communication which pushes a simple and basic narrative over the complexities. The narrative that despite uncertainty and complexity anthropogenic climate change is real and must be addressed will necessarily receive pushback from comedians and other anti-authoritarian forces who want to find the details and the tangents and the space for ridicule. Franks says: “the big challenge for something like climate change where the conventional wisdom is that everyone needs to think the same way about this for something to work.”

This is very interesting when compared to Tim Slagle's journey. Slagle started off in agreement with the AGW camp saying "at first I bought into the whole thing", but began to get into arguments with people who he felt had the wrong facts, such that now he believes that people have been "sold a bill of goods as far as global warming. What they thought was science turned out to be propaganda." He says that "the pro climate change legislation side tends to feel like they have the authority on their side, for me that's a ripe topic for mocking" because "I always wanted to be an edgy comedian and you can't be an edgy comedian if you don't go against the conventional wisdom." However it doesn't seem to be working for him: "I always kinda thought that that behavior would be rewarded... yeah I was wrong."

This brings up a few points. First, combining Frank's observations with Slagle's story suggests that there always be comedians who push back against climate change communication and that the more monolithic that opinion is being perceived to be, potentially, the more that people will want to topple its authority. As Slagle said: "That would be my goal in comedy is to bring the authority back to human level".

One area that might hold a clue for this is the use of a social justice frame to communicate about climate change. Almost none of the comedians I interviewed were viewing climate change through the point of view of a social justice frame. However, it is in the fact that climate change is necessarily a story of inequality of cause and of impacts that the human drama of climate change, in my mind, lies. In mocking, comedians reject closed texts, reject single simple narratives and push for uncertainty and questioning which can be a powerful and productive force (Slagle described this almost as a stand-in for an adversarial media). If there were to be an increased use of a climate justice and an environmental justice frame use by scientists and activists, it is possible that comedians may increasingly shift the object of their

ridicule and find human narrative and relevance in talking about climate change and perceive the authority to “topple” as those who stand in the way of action rather than climate science.

In an era of news media political polarization, comedians who are willing to critique both sides may be a good place for finding common ground and keeping both sides honest. These strengths should be highlighted, and comedy can play a strong role of drawing attention, creating connections and communicating opinions related to climate change.

This project has generated ideas for further areas of research, both within the data that I collected and outside of it. Here I will describe some of the things I hope garner attention in coming years in answer to my final question: “10) What further research do we need?”

Humor’s Effect on the Social Spread of “Cause-Based” Media

As Miriam Fogelson said, “Everyone wants a viral video.” One of the areas of research suggested by this project is into the social spread of cause-based media. The issue of content distribution is tantamount to impact in our current saturated entertainment market. An example of this is in the failures of social spread of the [Eco-Comedy film competition](#)³⁵ hosted by American University: one week after the winners were announced, the videos each had on average fewer than 200 views. For short films intended for a broad audience and aimed at people who might be skeptical of the science, such a small viewership means that most likely the goals of the competition were not met. This represented just another example of a media bubble in which people preached to small and already sympathetic audiences.

One interesting place to begin this research would be with an analysis of [upworthy.com](#). The website is purportedly designed to be socially minded videos that will be spread virally, however, a cursory analysis of the webpage appears to me that it features primarily human interest stories. The primary feature today is “At the Height of Her Success, This Model Chose to

³⁵ <http://www.american.edu/soc/cef/eco-comedy-film-competition.cfm>

Share a Very Personal Affair With Us". Now that you can quantify and track shares via social media, it would be interesting to conduct a research study about the relative success in viral-spread of cause-based and non cause-based media units and media about climate change which incorporates humor and does not. This research could be helpful in demonstrating whether or not humorous media approaches to climate change more effectively reach audiences and if so encouraging organizations who are hesitant to use humor to try it. Miriam F said "A lot of advocacy groups are afraid to use humor. They wonder, 'are you trivializing the issue?' But it is not true, it is just a way to get people to pay attention". The idea that cause-based media might have an inherently downward driver in social spread. However, this might be counteracted by the boosting affect of humor.

Casual Humor

Humor is an important way in which groups form, self-regulate, incorporate new members and establish norms of behavior and thought. Humor is an important tool for members to test out behaviors and opinions and is also a mechanism through which the group or members in the group affirm or reject those trials. I would hypothesize based on my own experience and conversations with other people, that many of the ways in which climate change is present in people's day to day life is jokingly. There is need and room for further research into the roles of casual, interpersonal humor in the case of social dynamics of knowledge of climate change.

Given the substantial research into the role of group politics and collective values in determining an individual's perception and understanding of climate science as well as attitudes towards it, researching how humor about climate change interacts with these dynamics would be fruitful. It would help illuminate the power dynamics at play, and the internal processes of group interactions in this issue. Humor is a testing ground for the real, because it opens up space

around what is both by presenting it for our view and by contrasting it with what is not/ what could be. Thus, it would be particularly interesting to research the jokes people make around climate change as it might offer a window into people's internal processes and lived experience of climate change. I would propose that people's perceived self-efficacy, views of their own actions, idea of the possibilities of change and even perception of the reality, causes, and effects of climate change are largely mediated through humorous exchanges. This research might be ways in which humor operates in establishing and maintaining individuals views of climate change and personal relationship to it, might yield insights into how to devise humorous interventions related to this subject. This includes development of MEMES, development and proliferation of "positive" or "accurate humor", buzz-feed type approaches to these questions.

Other forms of Comedy

This project focuses on stand-up comedy and comedy news. It finds that these sources do not play an information communication role, rather they play a role of drawing attention, creating connections and communicating opinions. However, it would be interesting to examine other forms of humor. I am thinking specifically about comics which may have the potential, due to their text and image based format, to be good candidates for information communication, and may be able to tackle the science of climate change in a way that stand-up comedians felt they were unable to while being able to attract attention that sources like the IPCC report struggle to attract. One good place to begin for research would be Yoram Bauman's forthcoming book which is a cartoon introduction to climate change. It would be interesting to analyze how comic strips compared to purely text-based modes in terms of their ability to communicate the science and politics of climate change and the participant's influence of the expertise, authority and credibility of the source. There may be potential for a group of artists to collaborate with the

IPCC and create a product that has the expertise certification of the IPCC while taking advantage of alternate information communication modes.

Impact

This project focuses on comedians' perspectives, intentions and self-descriptions which can provide important insight, but leave a lot of room for continued, more objective, analysis of the actual impact of using comedy to address climate change in various settings. I would love to see more research specifically focused on analyzing the affect of humor on peoples' perception of climate change which could be potentially translated into targeted ads to address different psychographics relative to this issue.

As for me, and my next research steps, the greatest challenge in this project was choosing which parts of that data to focus on. I have 26 transcribed interviews from important figures in the comedy and activist world that I could read over and over because of how fascinating they are. Thus it is my hope that this paper is just one section and just the very beginning of the information that could (and might) come from continuing to work with the data that I collected for this project. I hope that this is the intermediary product in a larger trajectory of my engagement with this topic. It has left me with more questions than answers but has not diminished my deep commitment to this topic. Instead, I stand along with many others, at the gap between science and society, between informational problems and lived experiences, between facts and opinions, knowing that a perfect bridge is impossible but also that academic, artistic, humorous, analytic and creative endeavors can open up new possibilities about how we can step into the void with grace and imagination. I am left with the realistic and hopeful words of Bengt Washburn:

Maybe comedy, if anything, can release the tension so that people can listen to each other. You know? It's like if someone doesn't want to believe in creationism, first they have to admit they're an idiot--well who wants to do that? Who wants to admit they're an idiot? You know what I mean? That's no fun. What if they can just admit, well, if maybe they don't have to be embarrassed about having been an idiot. Maybe my jokes come at it that way, 'well yeah maybe I was an idiot-- but I don't feel bad because the people who tell me that are also idiots, look at them! We're all kinda idiots. Maybe my jokes can help diffuse the pride on both sides so that we can not be upset about being wrong and we can just listen and talk about it. I think humor can transcend that kind of stuff if we laugh at the pride that makes us angry and insist we're right when we have no idea what we are talking about maybe we can settle down and talk again and that's what's killing us right now, we don't talk to each other.

Appendix A: Existing Literature about Climate Change and Comedy

The first study I mentioned (Feldman 2013) seems to follow directly from the Nisbet et al 2009 paper I discussed earlier which mentions the increasing importance of the late night comedy news shows. Indeed, much attention of late has been focused on the late night Comedy Central comedy news shows The Daily Show (TDS) and The Colbert Report (CR). This is because they have become increasingly popular shows, particularly amongst young Americans, and are being viewed as sources of news and opinions rather than just as entertainment.³⁶³⁷ Increasing amounts of people look to these comedic sources for their serious news, thus, the treatment of climate change on these shows is likely to be impacting people's perceptions of the topic and is worth consideration.³⁸

Feldman et al (2013) performed a quantitative analysis of the coverage of global warming on The Daily Show (TDS) and The Colbert Report (CR). The study systematically examined how global warming was being portrayed on each of these shows and the extent to which it offered a critical alternative to mainstream coverage of the topic. It took the 81 archived

³⁶ According to a 2010 Pew Report, seven percent of Americans say they regularly watch TDS and 6% regularly watch CR, of these viewers, 53% the CR's regular viewers and 41% of TDS' are 18 to 29, as compared to the overall 23% of the American adult population that is younger than 30 (Pew Report 2010). This means that regular viewership rates of people under 30 are about the same for TDS and CR as they are for weekday morning news shows, CNN, and the network evening news. While the most common this primary motivator for regular viewers is "entertainment", about half of viewers of both shows tuned in for news or some combination of news and entertainment. For TDS, the majority of viewers reported tuning in for news related or combined news and entertainment related reasons verses entertainment alone (Pew 2010)

³⁷ TDS- 43% entertainment, 24% interesting views & opinions, 10% latest news and headlines, 2% in depth reporting and 20% a mix/all. Whereas for CR - 53% entertainment, 19% mis/all, 18% interesting views and opinions, 3% latest news and headlines and 2% in depth reporting with 5% idk or other.

³⁸ Interestingly, nearly 3/4 of both audiences (DS 78) (CR 70) self described as "environmentalists", this ranks similarly to MSNBC (78) Maddow (78) News magazines (76) NPR (76) CNN(74) NYT (71) whereas Limbaugh (44) Hannity (43) Glenn Beck (48). A significant portion of viewers surveyed across all different shows reported high levels of identification with the term environmentalist, the highest being Hardball at 83% and the lowest being Hannity at 43%. With TDS and CR ranking towards the upper-middle end at 78% and 70% respectively. (Pew 2010).

segments tagged with “global warming” between January 1999 and April 30th 2012 for TDS and the 102 from October 2005 through April 30, 2012 for CR. Each video clip was coded to capture statements made by the hosts related to global warming. All statements made by guests on the show or that were not related to global warming were not considered. First they coded for explicit statements made by the hosts as to the reality, causes, severity and impacts of global warming. Next they coded for the implicit targets of the humor about global warming. Finally they coded for the frame most present in the clip this time considering statements made by any guest interviewees as well as the hosts and correspondents.

They found that a majority of segments explicitly affirmed the reality of global warming, although there was still a significant portion of segments which denied it as well (CR did in approximately 1/4 of the segments reviewed as compared to 10% of TDS)³⁹, and that the most common frame was the conflict frame⁴⁰. Conservatives/Republicans (TDS-44.4% and CR 26.5%) and climate skeptics (TDS- 22.2% and CR- 65.7%) were the most common intended targets of humor although Democrats/Liberals were also high (TDS 23.5%; CR 15.7%) as was politicization (TDS 16% and CR- 12.7%) similar percentages targeted Al Gore, and GW-related policies.

The study asserts that overall the shows portray global warming in a way that is consistent with the scientific view in so much as a majority of the segments explicitly affirm the science of GW, make jokes about climate skeptics and more frequently invite GW-pro guests onto the show saying “ the shows are friends to global warming activists, environmental policy

³⁹ They found that 71.6% of TDS segments included some statement explicitly affirming GW and 39.5% explicitly challenging it, while for CR that number was 68.5% explicitly affirming GW and 65.7 % explicitly challenging it.

⁴⁰ In terms of frames, they found that a majority of segments on both shows used a conflict frame (TDS- 64.2% and CR 54.9%) Environmental frame was also common across both shows (TDS 50.6% and 47.1% CR). Public accountability and economic frames were next popular while whereas morality, public health, national security were each less than 10% overall.

makers, scientists, and science writers—people who, in their interview appearances, were often able to shift the frame of reference from political conflict to other aspects of global warming, such as its environmental, economic, or public health implications”. However, they also acknowledge that more than 1/3rd of segments on both shows include explicit statements that downplayed global warming, mocked solutions or policies and a majority of these segments presented a conflict frame. They acknowledged that this might lead to a trivializing of the material or an increase in cynicism and that the satirical nature of the shows leaves open much space for misinterpretation. Especially since some other research shows that the political ideology of individuals watching CR affect their perceptions of Colbert’s political ideology (LaMarre et al 2009). Which means that while there was no difference between conservatives and liberals in thinking that Colbert was funny, there was significant difference between groups in their interpretation of his humor with each group reporting that Colbert’s true beliefs aligned with their own.

Limitations to this study include the inherent difficulty of quantitative analysis of humor. It is difficult to capture the difference between explicit and implicit content and it is hard to know if the audience’s perception of the “implied” message corresponds with the researchers’. The fact that for the purpose of these studies, these clips were viewed outside of the context of the larger episode they appeared in might also exclude important information that could influence people’s perceptions of the segments of the shows related to CC. Lastly, the fact that any statements made guests on the show were not considered in the coding of the first two parameters also seems that it would leave out some important information from the study, as often the guest brought on is an expert and the host plays devil’s advocate.

The second explicitly relevant research project I could find came out of the Yale Forum

on Climate Change and the Media (Peach 2011). The study examined coverage of climate change in *The Simpsons*. It found that only 10 of the over 475 episodes that had been aired at the time of the study had mentioned climate change. In the discussion in the article, the author asserts that contrast to other controversial subjects that have been addressed on the show, climate change has received little attention, and that the show's portrayals of the topic have "relied increasingly on stereotypes of environmentalists"(Peach 2011 n. pag.). The article quotes journalist and author of "Planet Simpson: How A Cartoon Masterpiece Defined A Generation," Chris Turner in saying: "Their [*The Simpsons*'] take on climate change has been pretty weak...That's a bit of a shame, because if there is anywhere that climate change could get a great hearing in pop culture, it would be in 'The Simpsons.'"(Peach 2011 n. pag.). Although the study was not optimistic *The Simpsons* had shaped public opinion on climate change it was optimistic about the potential for humor to reach new audiences on this issue, saying that a "humorous approach may disarm viewers who would otherwise dismiss messages about the environment"(Peach 2011 n. pag.).

Appendix B: Paying My Respects to Humor Theory

Here I pay my respects to the broader field existing humor theory which was not directly relevant to my argument, but respectful to include.

There are three main theories of what makes something funny: “superiority”, “incongruity” and “relief”. Relief theory focuses on laughter as a physiological release of tension, particularly nervous energy. This theory explains spontaneous laughter, children’s laughter, laughter at tickling, nervous laughter in tense situations, it focuses on laughter as a physiological phenomena (Moreau 1983).

Incongruity theory posits that humor comes at the discovery of discrepancies between learned/expected patterns and reality. People laugh at things that are odd, surprising or unexpected without posing a threat. This theory focuses on humor as a cognitive process as it is only through rationally understanding the norms of any given situation that the humor at a deviation from these norms can appear. Examples of this would be laughter at something which is physically or behaviorally out of place. This also explains the diminishment of pleasure at listening to a joke when the punch line is already known. Veatch (1992) holds that this type of humor requires someone to simultaneously hold two mental images - one view of a situation that seems normal, and one view where there is a violation of the moral or natural order, and that humor occurs when the situation appears normal yet something is wrong.

Superiority theory holds that laughter comes from a sense of victory or triumph. It explains the laughter at someone else’s foolish or ignorant behavior. It is seen as having a disciplining function in which people are put in their place and ridiculed via laughter, thus establishing a sense of connection amongst the group laughing and distance from the object of ridicule. It seems that this theory has been around since the time of Plato and Aristotle and

continues to the modern day (Meyer 2000).

Although they are a contentious bunch, humor theorists seem to agree on a few things. First, they agree that humor comes from that which is unexpected, odd, taboo, ludicrous, incongruous or transgressive. Second, that humor is a two-way street: both understanding and volition are required for the success of a humorous situation (Raskin 1992). This means that there needs to be some cognitive understanding and recognition for humor to happen and also the emotional openness for a situation to be perceived as humorous (Raskin 1992). This will become important later, as the success of something humorous depends on the audience's willingness to be open to laughing. Next is that humor is context dependent, there is not an objective distinction between humorous communication and non-humorous communication; humor is not inherent in a thing, it is inherent in someone's perception of a thing. Shibles (1998) writes: "Any deviation or mistake can be humorous if we accept it", "we do not laugh at humor, we see things humorously"(Shibles 1998 n. pag.).

Types/Manifestations of Humor

There are countless types of humor. Humor operates as metaphor, through drawing comparisons between things that are not the same, through deviating from the: "believed, correct, desired, expected, familiar, honest, ideal, intelligible, known, possible, probable, proper, real, reasonable, rules, useful, usual"⁴¹. Some of the ways to create humor are by: "metaphor; making harmless mistakes; exaggerating; pretending to be what we are not; deviating; making false statements; taking the wrong meaning of a word or sentence which has several meanings; saying the reverse of what we mean; mimicking or imitating someone; false analogy; treating or regarding people as animals, things, or ideas; treating things or ideas as animals or people; illusions, or hypocrisy; giving unexpected, or surprise solutions; relating the valuable to the valueless or trivial (called

⁴¹ Shibles (1998)

"sinking"); underestimating or understating things; saying irrelevant things; saying or doing things which do not make sense (create nonsense); being especially honest when it is not expected; misclassifying; combining things of different types; calling (false) names; asserting what is obvious; tricking; deceiving; performing a practical joke; being illogical; being irrational; acting or speaking differently than other people do."⁴²

This huge list harkens back to the idea mentioned earlier, that humor is in the perspective you bring to something not in the thing itself. Humor of any of these types can serve different social functions. One theorist, Meyer (2000), proposes four basic functions of humor, two of which perform uniting functions and two dividing: identification and clarification as opposed to enforcement and differentiation. Identification occurs when the intended target of humor is both very familiar with the subject and sympathetic view towards it resulting in identification with the communicator. Humor can lead to clarification when an audience is not very familiar with a topic but is in agreement/ sympathetic to it. Third, a group with some disagreement and unfamiliarity can receive enforcement of a social norm through humor. Lastly, a group with strong disagreement with the subject of humor and high familiarity can receive differentiation.

Humor operates on many different levels. Any given joke or statement can hold multiple intended meanings and have multiple different interpretations and effects. In any given case there are three parties involved - the humorist, the audience and the subject matter.

This idea that humor might be able to play a serious role is not a new one. Many people have written about the relationship between humor, power, social inclusion, norms, and deviation from norms. While historically humor has been viewed as frivolous or insubstantial, research

⁴²(Shibbles 1998)

suggests that humor plays an important role in interpersonal dynamics, group dynamics, institutional dynamics, social movements and even cultural shifting.

Dwyer (1991) writes about the ways in which humor functions on an interpersonal level by increasing people's ability to adapt to and fit in with groups. He writes that it is used to win affection, test out the ranges of social and intellectual tolerance in a group, create a common language (like inside jokes) and establish and maintain group norms. In organizations, humor is related to power relations and is a mechanism of enforcing and challenging power dynamics (Dwyer 1991). Meyer elaborates saying that humor can perform uniting or dividing functions: it can be used to increase identification of a group, clarification of a view of a topic, enforcement of a social norm or differentiation from the object of the joke.

Humor has been written about as a form of non-violent resistance to oppression in a wide variety of situations. It is analyzed as a coping mechanism in Nazi concentration camps (Bertil and Skratta 2005) and other war prisons (Henman 2001), and a form of "political jiu-jitsu" in the Serbian Otpor movement against Slobodan Milosevic (Sorensen 2008).

Humor can play an important role both within internally within the social structure of a movement, and externally as a tactic directed outside of the movement (Kutz-Flamenbaum 2014).

Perhaps the most relevant example to this project is the role that humor, specifically African American Comedians, played in the civil rights movement in America. At first, many prominent African Americans in the civil rights movement viewed black comedians as undermining the goals of the civil rights and compromising Black Americans' respectability. Stand-up comedians such as Dick Gregory paved the way for African Americans in a previously white comedy industry, performing racialized content in front of diverse audiences and

participating in rallies and marches.⁴³ A number of African American comedians rose to fame and were responsible for shifting the world of American stand-up comedy and arguably the culture of race relations. Bill Cosby and the Cosby Show presented a normal and positive family thus “dramatically altered the popular image of Blacks”, improving self-image for African Americans and altering many Caucasian American’s stereotypical views.⁴⁴ Richard Pryor, Comedy Central’s #1 on the list of 100 Greatest Stand-up Comedians of All Time. In the beginning of his career, Pryor was a self described Cosby-style comedian who was playing along with many of the norms, however in late 60’s he made a switch in his career, embracing the then exceptionally controversial N-Word, and beginning to swim strongly against the stream of what was accepted and expected of his comedy. ⁴⁵ ⁴⁶ Many Black comedians today continue to follow in the footsteps of Pryor, pushing the boundary of acceptability and challenging racism and inequality in America.

⁴³Lorts 2008

⁴⁴Means Coleman(2001)

⁴⁵ Listology.com “Comedy Central’s 100 Greatest Standups” (2005) Accessed Online at: <http://www.listology.com/list/comedy-central-100-greatest-standups-all-time>

⁴⁶Williams (2005)

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A Compilation of My Case Study Examples and Their Links

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<http://www.american.edu/soc/cef/eco-comedy-film-competition.cfm>

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Bill Maher "Creationists and Climate Change Agnostics" Accessed online at:
https://www.youtube.com/watch?v=veYPRi_ZMhs

[Bill Maher on Climate Denial](https://www.youtube.com/watch?v=piZGcH3Q9Zo) Accessed Online at: <https://www.youtube.com/watch?v=piZGcH3Q9Zo>

Brian Ettlting, "Introduction to Green Speaker" Accessed Online at: <https://www.youtube.com/watch?v=h7S2eagqt0Y>

Chris Rock "on Slavery" Accessed Online at:
https://www.youtube.com/watch?v=z2Wy_xRHjd4&oref=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3Dz2Wy_xRHjd4&has_verified=1

Chris Rock "on C-Students" Accessed Online at: https://www.youtube.com/watch?v=_qIYcrLYTeA

David Crowe, "Gassaholic" Accessed Online at: <https://www.youtube.com/watch?v=7ieJpQoFRXs>

Entertainment Industries Council website. Accessed online at:
<http://www.eiconline.org/about-us/mission-statement/>

Futurama "None Like it Hot" <https://www.youtube.com/watch?v=i0jfxEejS2Y>

George Carlin on Environmentalists/ Global Warming
<https://www.youtube.com/watch?v=BB0aFPXr4n4>

League of Conservation Voters: [Science Fair Nightmare](https://www.youtube.com/watch?v=7NMTzNazftI) video featuring Adrian Grenier Accessed online at:
<https://www.youtube.com/watch?v=7NMTzNazftI>

Louis CK "If god came back to Earth". Accessed Online at:
https://www.youtube.com/watch?v=YWZkwuLn_s

Richard Pryor, "Live on Sunset Strip". Accessed Online at: <https://www.youtube.com/watch?v=fmfwNyjme-Y> -

"Science and Entertainment Exchange" Accessed online at:
<http://www.scienceandentertainmentexchange.org>

The Colbert Report "Keystone XL Oil Pipeline" Accessed online at:
<http://thecolbertreport.cc.com/videos/5vb30b/keystone-xl-oil-pipeline---bill-mckibben>

The Colbert Report: Carl Pope and Sierra Club
<http://thecolbertreport.cc.com/videos/ytt7lh/better-know-a-lobby---sierra-club>

The Daily Show, "War on Carbon" Accessed online at: <http://thedailyshow.cc.com/videos/r8c9ac/war-on-carbon>

The Daily Show "Global Warming Hoax" Accessed Online at: <http://thedailyshow.cc.com/videos/4bdpjs/the-global-warming-hoax>

Tim Slagle "A Tribute to Al Gore" Accessed online at: <https://www.youtube.com/watch?v=YWFbjBwEGfM>

Will Ferrell "George Bush on Global Warming" Accessed online: <https://www.youtube.com/watch?v=OqVyRa1iuMc>