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The climate change sublime: Leveraging the immense awe of the planetary threat of climate change

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Running head: CLIMATE CHANGE SUBLIME

THE CLIMATE CHANGE SUBLIME: LEVERAGING THE IMMENSE AWE OF THE
PLANETARY THREAT OF CLIMATE CHANGE

By

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Thesis

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Table of Contents

Chapter 1: Introduction	3
Literature Review	6
The immensity of climate change.	7
The sublime detailed.	8
The sublime response.	10
Apprehension comes first.	10
Awe comes second.	13
The third phase: exaltation or powerlessness?	15
Persona of the adventurer.	18
Sublime rhetoric.	18
The climate change sublime.	21
Methods	24
Summary of Artifacts	25
Précis of Chapters	26
Chapter 2: Chasing the Loss of Sublime in Chasing Ice	27
The Erosion of Sublimity	29
The Adventurer, Sublime Ice, and the Threat of Loss	30
First Phase: The Erosion to the Sublimity of Ice	34
Second Phase: Shifting to Planetary Deprivation	37
Third Phase: Heightening the Fear of Climate Change	40
Fourth Phase: The Return to Beauty and Sublimity of Ice	44
Chapter 3: Chasing the Sublime in Chasing Coral	47
Sublime Rhetoric for Planetary Political Action	49
First Phase: The Apprehension and Threat of the Sublimity of Coral Reefs	50
Second phase: Leveraging the Immense Awe of Climate Change	53
Third Phase: Leading the Audience out of Their Fear	54
Fourth Phase: Motivating Audience Action	58
Chapter 4: Conclusion	63
Summary of Analyses	63
The Sublime and the Threat of Climate Change	64
The Sublime and the Constraints of Climate Change Communication	66
Engaging Audiences with Climate Change	68
Implications for Environmental Communication Scholars and Advocates	71

Limitations	75
<i>References</i>	78

Chapter 1: Introduction

A glacier, massive against the sunlit landscape, crumbles into the ocean. Its once domineering form forever reduced, as well as any exaltation that it may have offered to the human subject. A coral reef stretching 1,400 miles, abounding with dizzying array of ocean life, turns white and then grey as sections of it slowly die. As the life teeming around the coral disappears in these segments, so too does the wonder of its harbored biodiversity. These instances of harm have not gone unnoticed. Filmmakers and photographers with a keen eye seek to capture the grandeur of these outstanding objects to show the world what is being lost and the cost that may have for all of us if indeed the loss continues. These endeavors resulted in two documentaries, *Chasing Ice* and *Chasing Coral*, whose purposes are to induce the acceptance of the scientific certainty of climate change and to motivate political action to address climate change, respectively. Directed by Jeff Orlowski, the films are critical darlings, with Andrew Moseman (2012) admiring *Chasing Ice* as “a gripping way to drive home the reality of climate change through stunning footage from the edge of the world” while Jason Ooi (2017) writes that *Chasing Coral* is deserving of praise for its “strength [that] lies within the pathos generated by the visuals that showcase the exact nature of [the coral’s] precarious state.”

Chasing Ice and *Chasing Coral* provide noteworthy occurrences of sublime rhetoric that seek to engage audiences with the issue of climate change. Significantly, *Chasing Ice* and *Chasing Coral* grapple with the constraints with communicating the threatening exigence of climate change that is defined by its immensity. Wolf and Moser (2011) write that people feel a sense of futility with the “immensity of this ‘global’ problem versus [their] individual actions” (p. 16), which leaves them “overwhelmed when they try to comprehend their own relationship with the issue” (O’Neill & Nicholson-Cole, 2009, p. 375). The challenge of communicating climate change is that its scale far exceeds the scope of the audience perceiving the issue. This

immensity results in two rhetorical constraints: the representation of climate change is abstract due to its diffuse spatiotemporality and its threat is overwhelming due to the enormity of the issue. A rhetorically productive means for communicating the saliency of climate change and also empowering audiences to be political actors may be through sublime rhetoric.

Rhetorical scholars have long explored the immensity of natural objects and their representation in environmental discourse through the concept of sublimity. Sublimity is an experience produced by one's "inability to fathom the power, vastness, magnitude and magnificence of an object witnessed" (Peeples, 2011, p. 379). Rhetors have historically used sublime objects in environmental discourse to motivate audiences towards attitudinal or political change. Christine Oravec (1981) argues that John Muir used sublimity to highlight the need to preserve Yosemite through his evocative writings of that locality in the late 1900s. Kevin DeLuca and Anne Demo (2000) write of Carl Watkins, a contemporary of Muir, who used photography to capture the immensity of Yosemite to emphasize the need to preserve such a magnificent, and therefore valuable, place. Lastly, Jennifer Peeples (2011) contends that Edward Burtynsky, since the eighties, has used his photography of contaminated landscapes to engender in audiences a contemplation of their own consumptive habits.

Environmental advocates have long used written, verbal, and pictorial representations of vast natural objects to influence beneficial responses to landscapes. While environmental communication scholars have rigorously studied sublime discourse (Oravec, 1981; DeLuca & Demo, 2000; Peeples, 2011, and Brunner & Dawson, 2017) there is a lacuna in this literature regarding the use of sublime rhetoric to motivate audience engagement with global environmental crises. In particular, the rhetorical device of the sublime offers a unique opportunity to communicate climate change, as the very quality that defines the sublime,

vastness (Keltner & Haidt, 2003), is intrinsic in geophysical processes. Additionally, Oravec's¹ (1981) article on John Muir's use of sublimity, while laying the foundation not only for sublime rhetoric but also environmental communication, does not adequately define the sublime response to vast, anthropogenic threats, despite it being central to its contributions. This sublime response needs clarification as the anthropogenic threats to nature are only becoming more ruinous as time progresses. Lastly, scholars following Oravec have not explored how the sublime rhetoric pattern may be adapted to different exigencies or situations that require modifications to effectively employ sublime rhetoric. In other words, Oravec's sublime rhetoric pattern may not be the only pattern used in different instances of sublime rhetoric.

This essay seeks to address these oversights in sublime rhetoric scholarship. I address these limitations by analyzing *Chasing Ice* and *Chasing Coral* to illuminate how sublime rhetoric may be used to engage audiences with climate change. I propose the concept of the anti-natural sublime as a significant rhetorical element of sublime discourse, which I define as the anthropogenic sublime that threatens vast nature. I argue that the anti-natural sublime response needs to be separated and distinctly clarified from its natural sublime counterpart; doing so will clarify the rhetorical opportunities and constraints present in the anti-natural sublime. Further, Oravec's sublime rhetoric pattern needs to be updated to account for rhetorical constructions that use the immensity of the Anthropocene, to shape and mold responses to that phenomenon and its

¹ Oravec (1981), in particular, offers three valuable contributions to the literature of sublimity in rhetoric through her study of John Muir and his advocacy for the preservation of Yosemite. First, the author details the sublime response that one feels in the presence of something to which they are comparatively insignificant (Oravec, 1981 p. 248; p. 254). Second, Oravec describes the literary persona of the adventurer that Muir used to "establish a human perspective upon the complexity of nature" (Oravec, 1981, p. 248). Third, the author specifies the pattern of sublime rhetoric, which Muir used to motivate political action in his audiences (Oravec, 1981 p. 248; p. 254-255).

impacts, such as climate change. My specific contributions are an updated sublime response that is centered on experiences of enormous, anthropogenically-induced threats and a two modifications to the pattern of sublime rhetoric; the first, demonstrated by *Chasing Ice*, accounts for a rhetorical purpose other than political motivation, such as illuminating a diffuse, invisible phenomenon. The second, illustrated by *Chasing Coral*, does account for political motivation, but adapts it to the exigency represented by climate change's immensity. Ultimately, clarifying sublime discourse surrounding climate change will provide a theoretical framework for scholars and practitioners that will further our understandings of audience engagement with this instance of the Anthropocene.

Therefore, in my thesis I will explore how different types of sublime rhetoric grapple with the problematic immensity of climate change and position audiences to take political action. My research questions are as follows:

- How do rhetors invoke the sublime to shape perceptions of climate change?
- To what extent do different types of sublime rhetoric productively overcome the communicative constraints of abstract representation and overwhelming threat brought forth by the immensity of climate change?
- How does conceptualizing climate change as a sublime shape the available rhetorical strategies for positioning and persuading audiences to be effective agents of change?

The rest of this chapter will include a review of scholarly literature on the immensity of climate change and the challenges involved with its abstract representation and overwhelming threat. Then, I connect that to scholarly literature on sublimity and sublime rhetoric. Following the review of the literature, I state my methods, describe the artifacts *Chasing Ice* and *Chasing Coral*, and my rationale for choosing them as my texts. Finally, I preview the rest of the thesis.

Literature Review

The immensity of climate change. Two primary constraints to communicating climate change are well represented in the literature and are its diffuse nature and overwhelming threat. The spatiotemporal remoteness of climate change is problematic factor of the immensity of climate change. Stated plainly, that climate change is a distant both in time and space makes it difficult to effectively communicate. In a review of the literature, Wolf and Moser (2011) determined that the majority of studies find that people perceive climate change as temporally and spatially diffuse, which can lead to the perception that the issue is not a conspicuous threat (Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007). Moser specifically cites several qualities of climate change that contribute to this constraint, such as its invisible causes, primarily anthropogenically-emitted greenhouse gases that do not have “direct and immediate health implications” (Moser, 2010, p.33). Another quality is that climate change’s impacts are distant, making the cause distant from the effect both geographically and temporally. Finally, humans are insulated from their environments through modernity and, consequently, may lack the capacity to perceive incremental changes over the long term. These qualities are in direct opposition to audience’s perceiving climate change as salient (O’Neill & Nicholson-Cole, 2009). The rhetorical constraint of visually representing climate change is that it is only present in its effects (Morton, 2013) and statistical models (Granderson, 2014). The consequence is that the perception of climate change’s threat may be impeded by its diffuse nature.

The overwhelming threat of climate change is another challenging constraint. The scale of climate change is a contributing factor to the overwhelming nature of its threat (O’Neill & Nicholson-Cole, 2009) and is a rhetorical problem because audiences are less capable of taking political actions once overwhelmed by the discourse of climate change (O’Neill, Boykoff, Niemeyer, & Day, 2013). Even if the focus of the discourse is on people optimistically taking action, those exemplars are only doing so due to the exigence of the planetary threat.

Climate change discourse predominately focuses on its immensity to emphasize the need to address the issue. Immensity imagery, such as extreme weather events, is often “spectacular” and seeks to elicit feelings of awe or dread to convey a powerful sense of wonder or threat to drive the perception of importance to audiences (Lester & Cottle, 2009). Another type of immensity imagery is termed “apocalyptic,” and displays the most catastrophic effects of climate change that would reduce the global society to ruins to induce urgency and responsibility in audiences (Thompson, 2009). Fear appeals also use immensity imagery to generate a sense of agency in audiences (Johnson, 2009), though the immense nature of climate change may be too overwhelming for audiences to have access to the efficacy needed to take action (O’Neill & Nicholson-Cole, 2009).

The sublime detailed. When the human experience meets something that is many times more immense, one can feel a peculiar sense of smallness, which engenders a sense of awe; this is the experience of the sublime. The sublime is a human response to stimuli that is vast in comparison to the observer. Edmund Burke (1823) describes the sublime as an object demonstrating vastness, power, obscurity, privation, infinity, and magnificence. The sublime is experienced by the perceiver through a variety of “objects,” such as natural stimuli (e.g., volcanos and tornadoes) (Piff, Dietze, Feinberg, Stancato, & Keltner, 2015), religious experiences (Sundararajan, 2002; Pargament, & Mahoney, 2005), social experiences involving size (prestige and authority) (Keltner & Haidt, 2003), and creative expressions (e.g., art and music) (Shiota, Keltner, & Mossman, 2007).

The experience of the sublime can be enabled by sublime discourse (Sircello, 1993), which are descriptions of sublime objects by those who claim to have directly apprehended a sublimity for the purpose of persuasion. Sublime discourse is a rhetorical strategy where signs are constructed to be “convincing reproduction[s] of what is taken for reality” (Oravec, 1996,

p.58). The description of the sublime object is not the sublime experience, in other words, but a simulated representation through signifiers. However, sublime discourse can still be the means by which a person can apprehend a sublime object, whether through thick, evocative descriptions (Oravec, 1981) or panoramic images crisp with detail (DeLuca & Demo, 2000). These written descriptions and images highlight the vastness, power, obscurity, privation, infinity, and magnificence of the sublime object. Environmental communicators employ sublime rhetoric to “mold and shape our responses to our environment” (Oravec, 1996, p. 58). Environmental advocates use several strategies to shape perceptions to the environment and include the sublime response, persona of the adventurer, and the pattern of sublime rhetoric.

Rhetorical scholars have explored sublime discourse in environmental communication as a common rhetorical technique to shape perceptions of the natural world. Sublime rhetoric has taken the form of images and the written word, from the 19th century with John Muir’s written descriptions of Yosemite (Oravec, 1981) and Carleton Watkin’s photographs of Yosemite (DeLuca & Demo, 2000), to the more current discourses of Edward Burtynsky’s photographs of contaminated, yet eerily beautiful, landscapes (Peeples, 2011), and Nick Wagonner’s documentary *Jumbo Wild* that depicts the Purcell Mountains of British Columbia (Brunner & Dawson, 2017).

Christine Oravec’s (1981) analysis of John Muir’s preservationist writings identifies how that rhetoric mirrored and elicited a three-stage pattern of sublime response, which aligns with the first phase of the pattern of sublime rhetoric that she also describes. The first stage is the apprehension of the sublime object (Monk, 1935), the second is the resulting feeling of awe that results from the perceiver’s comparative insignificance to the sublime object (Keltner & Haidt, 2003), and the third is a feeling of spiritual exaltation (Oravec, 1981, 1996). This combination of exaltation and dread is conducive to political action (Oravec, 1981); however, in the pattern of

sublime rhetoric, the threat to the natural sublime object may problematically educe a sense of “bewilderment and inertia” (Peeples, 2011, p. 383) or powerlessness (Gordan et al., 2016) in audiences if the rhetor does not successfully lead through that pattern.

Oravec (1981) offers three valuable contributions to the literature of sublimity in rhetoric through her study of John Muir and his advocacy for the preservation of Yosemite. First, the author details the sublime response that one feels in the presence of something to which they are comparatively insignificant (Oravec, 1981 p. 248; p. 254). Second, Oravec describes the literary persona of the adventurer that Muir used to “establish a human perspective upon the complexity of nature” (Oravec, 1981, p. 248). Third, the author specifies the pattern of sublime rhetoric, which Muir used to motivate political action in his audiences (Oravec, 1981 p. 248; p. 254-255).

The sublime response. When the human subject perceives the qualities of the sublime, they experience a unique state of being that Oravec (1981) names the sublime response. She contends that there are three components to the sublime response that Muir used in his rhetoric: the “immediate apprehension” of sublimity, an awe-based feeling resulting from “overwhelming personal insignificance” and a “kind of spiritual exaltation” (Oravec, 1981, p. 248). It is this sublime response that audiences are led through in sublime rhetoric.

Apprehension comes first. The first stage of apprehension is a prerequisite to the sublime experience, only because one must first perceive a sublime object's vastness, power, obscurity, privation, infinity, and magnificence to experience the sublime response. The sublime object is first perceived by the senses, and then the imagination becomes captivated with that sublimity (Burke, 1823). Monk (1935) further elucidates on the cognitive aspect of apprehension by describing it as, "the aspiration of the imagination to grasp the object" (p. 58). The apprehension of the sublime is an attempt of the mind to subsume or absorb the resulting thought; hence the

phrase, "wrapping your head" around an experience (Gordon et al., 2016). The primary trait of sublimity is vastness (Keltner & Haidt, 2003), followed by magnificence, power, and obscurity.

Edmund Burke (1823) writes that vastness is a "powerful cause of the sublime" and that some dimensions prove to be more awesome if extended in different lengths, heights, and depths, such as a stretch of flat ground being less awe-inspiring than a towering rock formation (p. 97). Some sublimities can be so vast that their dimensions confound the imagination and therefore border on infinitude. Burke (1823) asserts that "the eye not being able to perceive the bounds of many things, they seem to be infinite, and they produce the same effect as if they were really so" (p. 99-100). Vastness can seem infinite if the sublime object is far too immense for human understanding, such as the finite but ever-expanding universe. This element of ostensible infinity in sublime objects has significant implications for climate change given that its scope far exceeds other typical sublime objects, such as a towering mountain or skyscraper, of which will be detailed later in this chapter.

Magnificence is a trait of the sublime and arises when the sublime object is inherently "splendid or valuable" (Burke, 1757/1823, p. 107), such as in the case of the natural sublime. The magnificence of sublimity is present in the sublime object's vastness and is what one identifies with when experiencing its wonder (Oravec, 1996). Muir, in his advocacy for Yosemite, employed that natural sublime object's magnificence through his evocative descriptions:

In one of his descriptions, that of snow banners created by the winds at the top of the Sierras, he introduced the view from above Indian Canon as if unveiling a work of art: "And there in bold relief, like a clear painting, appeared a most imposing scene." After exhorting his readers to "fancy yourself standing on this Yosemite ridge looking eastward," Muir elaborated in detail "how dense and opaque [the snow banners] are at the

point of attachment, and how filmy and transparent toward the end," a "beautiful and terrible picture as seen from the forest window" (Oravec, 1981, p. 248).

This analysis demonstrates that the magnificence of a sublime object is central to its wonder through its inherent value that it adds to the perceiver, even if that value is aesthetic in nature. This value, identified through the sublime response, metaphysically enlarges the perceiver to a scale that exceeds their previous limitations.

Power is another central theme to the perception that an object is sublime. An object is considered sublimely powerful if it is vast and can impact on a macro scale or significantly impact another object equally if not vaster. The power of the sublime object demands an inspection of its immensity and the therefore comparative insignificance of the perceiver (Shapshay, 2013). The relationship with the perceiver and the power of a sublime object is clearer through an example of its inverse, as made evident by Burke (1823). For instance, an object that a person has power over cannot be a source of a sublime because our mastery over that object neutralizes its threat, and therefore its capacity to impact. That tame object cannot be a sublime due to its lack of power over the perceiver. The power of the sublime lies in its capacity to harm or otherwise impact the perceiver (Burke, 1823), whether through the danger of being struck by lightning crashing down during a thunderous storm or staring upwards at a mountain known for harsh conditions that are responsible for deaths among those who climb its flanks.

Obscurity is another element to sublimes. A sublime object whose threat is obscure carries the potentiality for that danger to exceed the estimation of the perceiver. When the threat is not obscure, the danger is lessened because, "when we know the full extent of any danger, when we can accustom our eyes to it, a great deal of the apprehension vanishes" (Burke 1823, p. 76). An obscure threat is one where the perceiver cannot be certain of the danger it represents;

that uncertainty contributes to the vastness of the sublime and its potential power. Burke (1823) furthers this with: "In nature, dark, confused, uncertain images have a greater power on the fancy to form the grander passions, than those have which are more clear and determinate" (p. 106). Obscure sublimities can be more awe-inspiring than those sublimities whose borders are visible and discernable.

The component of obscurity is furthered when the sublime object's boundaries are so vast that they appear indistinct, if not infinite. Burke (1823) writes:

But let it be considered, that hardly anything can strike the mind with its greatness, which does not make some sort of approach towards infinity; which nothing can do whilst we are able to perceive its bounds; but to see an object distinctly, and to perceive its bounds, is one and the same thing (p. 83).

The vastness of an object is reduced to the extent that its boundaries are clear to the perceiver. Consequently, a sublimity is more "sublime" when its confines are indistinct because it appears more infinite. Therefore, its capacity to harm or impact is perceived as potentially limitless.

Awe comes second. When the human experience meets something that is immense, one can feel a peculiar sense of smallness, which engenders a sense of awe; this is the emotional state of the sublime. Awe arises from the comparison of the self to something much more vast, magnificent, powerful, and obscure. Burke (1757/1823) describes this feeling of awe as one grounded in terror. Oravec (1996) writes that this terror was used in differing capacities throughout European and American history, resulting in instances that more emphasized awe or fear over the other. Deluca and Demo (2000) build upon Burke's description and write that the sublime response is simultaneously experiencing terror and astonishment. Keltner and Haidt (2003) offer another description of awe, stating that it exists at the "upper reaches of pleasure and on the boundary of fear" (p. 297). Gordon et al. (2016) build on these ideas to distinguish

forms of awe that “can be purely positive in valence or tinged with elements of fear and threat” (p. 310), noting that positively-valenced awe is associated with beneficial self-definitions, such as prosocial tendencies (Piff, Dietze, Feinberg, Stancato, & Keltner, 2015). However, awe “in a threatening context...is likely to be more negative and fear-based, eliciting feelings of powerlessness” (Gordon et al., 2016, p. 3).

From a different angle, Oravec (1981) also treats awe as an important pivot point in the sublime response. She notes that in Muir's advocacy for the preservation of Yosemite as a national park, he transformed his audiences':

apprehension of the sublime into a feeling of impending deprivation and loss. The pattern of response paralleled that of the sublime, but instead of eliciting a feeling of comparative insignificance in the face of an overwhelming nature, he made his readers focus on the prospect of human depredation (Oravec, 1981, p. 254.)

This turn positioned his audience to go beyond the passive appreciation of nature to take responsibility for protecting Yosemite. This pattern of response to an anti-natural sublime, parallels the natural sublime response. Due to the increasingly immense anthropogenic threats to the planet, the anti-natural sublime response must be clarified to account for the resulting fear and its scale which problematically dwarfs the audience.

These different emotional “flavors” of awe suggest a spectrum of variations of the sublime response, ranging from ones that evoke feelings of powerlessness and fear (Gordon et al., 2016), and others that elicit more positive feelings, such as humility (Stellar et al. 2015) and greater life satisfaction (Rudd, Vohs, Aaker, 2012). Mapping these variations can help us observe how different sublime rhetorics overcome the constraints of audiences feeling overwhelmed by the immensity of climate change.

The third phase: exaltation or powerlessness? There exist at least two types of sublimity that can be distinguished by the response following the emotion of awe. One is the sublimity of a natural object, which is characterized by a sense of wonder and exaltation following its apprehension and awe. The other, the anti-natural sublime, is a sublime object created by humanity's destruction and pollution of the Earth on vast scales that threatens natural sublime objects. The anti-natural sublime object creates perceptions of threat that lead to feelings of fear and powerlessness through the irreparable, or the argument that the loss of the natural sublime object is unacceptable, warranting appropriate action (Cox, 1982). The prime factor in eliciting dread is positioning an undesirable sublime object, such as the anti-natural sublime, as threatening to a natural sublime object. Dread, then, is the sublime response to anthropogenically induced sublimities threatening the natural wonders of the world.

Natural sublimities are ones that, following the apprehension of the sublime object and experiencing the resulting feeling of awe from the standpoint of safety, result in a transcendent experience. Oravec (1981) writes that this is a "kind of spiritual exaltation" (p. 248) while Stormer (2004) describes the third stage of an exalted-based sublime as an "exalted state" (p. 213). This third stage of exaltation produces a state in which the perceiver "experience[s] the limits of self" (Stormer, 2004, p. 213), which has also been described as "stand[ing] outside oneself" (Oravec, 1996, p. 58). This exaltation is so powerful that it has been pronounced as transformative (Keltner & Haidt, 2003) and even conducive to a person's general wellbeing (Gordon et al., 2016).

Some scholars have shown how this kind of exaltation can further prosocial beliefs and values in the audience. Piff, Dietze, Feinberg, Stancato, and Keltner (2015) found that exalted-based experiences of awe diminish the sense of self, which increases people's capacity for collectivity, resulting in an increased inclination to share, care, and assist, behave more

generously, and make more ethical decisions. These prosocial values and behaviors are conducive to conducting oneself in a manner that benefits society, which furthers the collectivity needed to enact political change to mitigate and adapt to climate change. These prosocial attitudes are the same that Muir harnessed (Oravec, 1981) when he used the audience's exaltation to improve their moral character by rejecting the antisocial mindset that lead to the threat to the sublime object of Yosemite.

Once the perceiver apprehends the threat to the natural sublime object, their feeling of awe at their comparative insignificance to that threat results in a sense of dread. Burke's (1823) conception of a sublime aligns with this threat-based variant of the sublime:

Whatever is fitted in any sort to excite the ideas of pain, and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime.... (p. 39).

Burke is arguing that pain, danger, and terror are sources of the sublime. Indeed, the source of terror found in the anti-natural sublime is the threat to the natural sublime object and, in some cases, to the perceiver.

The anti-natural sublime is used in the sublime rhetoric pattern to highlight the threat to the natural sublime object. Oravec (1981) writes of this threat-based sublime with:

Muir began with a description designed to elicit the initial feelings of the sublime response. But by the conclusion of his description, Muir had converted his readers' apprehension of the sublime into a feeling of impending deprivation and loss. *The pattern of response paralleled that of the [exalted] sublime, but instead of eliciting a feeling of comparative insignificance in the face of an overwhelming nature, he made his readers focus those feelings upon the prospect of human depredation [emphasis added]* (Oravec, 1981, p. 254).

Instead of “feeling of comparative insignificance in the face of an overwhelming nature,” one feels comparatively insignificant in the face of an overwhelming threat to that nature. In Muir’s case, he “made his readers focus those feelings upon the prospect of human depredation (Oravec, 1981, p. 254) on a vast scale as he “typically viewed human desecration as not just an individual trait but *characteristic of the mass of mankind*” [emphasis added] (Oravec, 1981, p. 252).

Meaning, Muir made his readers focus on their comparative insignificance to the immense threat of human depredation to the sublime object of Yosemite.

Peeples (2011) also writes of a threatening, ant-natural sublime called the toxic sublime. The toxic sublime is the tensions that arise from “recognizing the toxicity of a place, object or situation, while simultaneously appreciating its mystery, magnificence and ability to inspire awe” (p. 375). Peeples clearly defines a threatening sublime to which Oravec (1981) alludes. The toxicity of the sites that Peeples analyzes comprise both the natural sublime object and its threat, the anti-natural sublime, in one image. Peeples goes on to write that the toxic sublime and its dread are the counterpart of the technologic sublime and its exaltation. She writes:

The toxic sublime, then, is the counterpart and required “other” to the technological sublime. It shares with the technological sublime a marvel at human accomplishments. Instead of staring up as a rocket soars into the sky, the viewer stares a mile straight down into an open-pit mine both constructed by humans, both amazing feats of technology capable of conjuring feelings of insignificance and awe. But the toxic sublime acts to counter that marvel with alarm for the immensity of destruction one witnesses (Peeples, 2011, p. 380).

One feels comparatively insignificant to the toxicity of these sites in the toxic sublime, evoking the dread, which is “other side of the coin,” so to speak, of a sublime whose awe results in exaltation. For example, the counterpoint to Muir’s exalted sublimity of Yosemite is the

anthropogenic destruction that would bring its wonder to ruin. Oravec points to this with “Muir juxtaposed his own descriptive and narrative pictures of nature in the wild with references to the desecration of human development” (Oravec, 1981, p. 254). This contrast of exaltation and dread is advantageous to constituting the danger into public awareness as threatening sublimines becoming visible through their “shadow” that they cast on the natural sublime object (Morton, 2013, p. 85).

Persona of the adventurer. Another contribution of Oravec (1981) is the literary persona of the mountaineer, which Muir used in his sublime rhetoric. Oravec (1981) argues that Muir employed the literary technique of the mountaineering persona to “establish a human perspective upon the complexity of nature and ground his descriptions in scientific fact” (Oravec, 1981 p. 250). The adventuring persona provides an entry point where the audience can experience the sublime vicariously through identifying with the experienced explorer. The audience is compelled to see themselves as capable of experiencing the sublime directly and, therefore, engaging in other heroic actions, such as political activism.

Sublime rhetoric. Sublime rhetoric is an argumentative pattern used to motivate political action favorable to preserving the wonder of a natural sublime object. Sublime rhetoric uses the sublime response to influence an audience's actions and beliefs regarding the sublime object, such as evoking an emotional state, sanctioning the acceptability of certain beliefs and actions, or highlighting a particular desire for a landscape, whether tourism, preservation, or some other (Oravec, 1981; Oravec, 1996; DeLuca & Demo, 2000). To motivate audiences towards this political action, sublime discourse acts as a perceptual screen, highlighting specific discernments, values, and actions while downplaying others (Oravec, 1996).

In her analysis of John Muir and his advocacy to preserve Yosemite as a National Park, Oravec (1981) identifies a specific pattern of sublime rhetoric, which draws from the sublime

response. Significantly, Muir used the sublime rhetoric pattern to indirectly motivate political action, relying on the transformative transcendence of the natural sublime to move his audience. The pattern of sublime rhetoric in environmental discourse is as follows: first, evoke in the audience the perception that a natural object is outstanding and then situate that object as vulnerable to a comparatively vast threat to induce feelings of loss and deprivation; second, lead the audience out of the fear by positioning the audience as responsible for the threat to the natural sublime object through their “passive acquiescence”; third, rather than directly state a call for political action, reaffirm the experience of exaltation from the natural sublime object to motivate engagement through transcendence indirectly (Oravec, 1981 p. 248; p. 254-255).

Sublime rhetoric “mold[s] and shape[s] our responses to our environment” (Oravec, 1996, p. 58) to produce political will in all three phases in the sublime rhetoric pattern. In the first phase where the natural sublime object is positioned as vulnerable to the anti-natural sublime’s threat, political will is produced through the argument of the irreparable (Cox, 1982). As Oravec (1996) argues:

Every icon of sublime nature, because of its implicit connection to what is natural and therefore ‘real,’ leads its viewer to assume that the absence of its referent would be not only undesirable but inconceivable. This prospect of absence and the permanent deferral of desire might produce sufficient incentive for fueling political initiatives (p. 72).

The audience is motivated to protect the natural sublime object as its absence would reduce its capacity for exaltation. By using the irreparable as the persuasive argument in the first phase of the sublime rhetoric pattern, the rhetor can “[secure] agreement with an audience concerning a value or hierarchy of values” (Cox, 1982, p. 229), ultimately arguing that that the now shared values demand political action to end the threat to the natural sublime object.

Political will is also produced in the second phase where the audience is led out of their

fear to the anti-natural sublime. To this end, the audience is situated as responsible “for reversing the progress of destruction” to the natural sublime object (Oravec, 1981, p. 254) and then reminded that the threat “could continue only through their own passive acquiescence” (Oravec, 1981, p. 255). Peeples takes this concept of positioning the audiences as responsible through their passive acquiescence further by arguing that the horror of the toxic sublime:

calls to question the personal, social and environmental ethics that allows these places of contamination to exist” [which creates a] “confrontation with our consumptive habits, what we buy, where we buy it, what organizations and industries we directly or indirectly support, and how those choices are influential in creating the sites we see (Peeples, 2011, p. 380; Peeples, 2011, p. 387).

The pattern of sublime rhetoric engenders political will through not only evoking in the audience self-reflexivity for their responsibility in addressing the threat, but also for their contribution to its perpetuation through their consumptive habits. This can be logically extended to include not only one’s consumptive habits but also political actions as well, such as how one previously was politically inactive or voted for a politician whose actions are inimical to the natural sublime object.

Finally, political will is produced through the transcendent experience found in the exaltation of the sublime response. Muir did not directly call for political action to preserve Yosemite. Rather, Muir’s belief in the necessity for political action was “affirmed through [the audience’s] experience,” (Oravec, 1981, p. 256) evoked through his “extensive description of the wonders of the valley in his most exalted language, as if confirming for his readers the reality and worth of their vicarious experience” (Oravec, 1981, p. 255). Muir relied on the transformative experience of the sublime to essentially “convert essentially passive aesthetic responses into pragmatic action,” which “transform[ed] his readers' imaginative experience of

scenic grandeur into an obligation to support preservationist legislation” (p. 246). The exaltation found in the sublime response is the impetus that political motivates audiences in the last phase in the sublime rhetoric pattern.

While rhetors have historically used sublime rhetoric in environmental discourse to successfully motivate audiences to political action, the use of an anti-natural sublime object to imperil a natural sublime may be problematic if the audience is not successfully lead out of their fear. This is due to the disempowering experience that may result from the perceiver witnessing their comparative insignificance to that threatening anti-natural sublime object. In response to one’s comparative insignificance to an immense threat, the perceiver may feel powerlessness, uncertainty, and helplessness (Gordon et al., 2016). Rather than feeling wonder from the comparative insignificance, the perceiver instead draws inward, recoiling from the threatening sublime object.

The pattern of sublime rhetoric is designed to lead audiences out of their fear to the threatening anti-natural sublime object. (Oravec, 1981). However, there exists the possibility that the vaster the threat to the natural sublime object, the more disempowered the audience may become. This may disrupt the third phase, as the audience may not have access to the efficacy needed to take political action regardless of the transcendence they experience from the natural sublime object.

The climate change sublime. This review of literature about sublimity and the sublime response points to the challenges and opportunities that come with positioning climate change within sublime rhetoric. Climate change is awful (awe-full) because of the immensity of its threat to humanity and the scale of its impacts upon the planet. The sublimity of climate change deserves due attention as its constraints must be overcome if rhetors are to guide audiences towards accessing their capacity to be effective social actors in the face of this planetary threat.

As stated earlier, two constraints must be overcome if rhetors are to be successful in motivating audiences to take adaptive and political actions towards climate change. The first constraint is to make visible the threatening exigence of climate change through the synecdochal context of its impacts. As Morton (2013) argues, climate change is visible through its smaller-scale impacts. Problematically, climate change's lack of visibility contributes to the difficulty for audiences to engage with the issue (Moser, 2010). The second constraint is the overwhelming threat of climate change that far exceeds the scope of the person apprehending the issue, which may induce powerlessness, uncertainty, and dread (Gordon et al., 2016). This fear response is so powerful that it can immobilize audiences with its overwhelming immensity (O'Neill & Nicholson-Cole, 2009). The result is that audiences may withdraw from the issue or be too disempowered to undertake adaptive and political actions. Also, the vastness of climate change intensifies uncertainty around the issue, making audiences either unwilling to engage with the issue, increase their skepticism about it, or deny that the problem even exists (Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007).

Overcoming these constraints—illuminating climate change and steering awe away from powerlessness and fear toward more productive responses—are central concerns of climate communication scholars (Wolf & Moser, 2011). It is imperative that these constraints be overcome in climate change discourse if rhetors are to be successful in positioning audiences to not only recognize climate change as a salient issue but also to perceive themselves as having efficacy to act against its immensity (O'Neill & Nicholson-Cole, 2009). In what follows, I apply the notions of vastness, power, and obscurity discussed above to climate change to describe further these constraints.

The vastness of climate change is the macro scale that the phenomenon exists. The phenomenon is so vast that, while not infinite, it represents a “very large finitude” that it is

“time-stretched to such a vast extent that [it] become[s] almost impossible to hold in the mind” (Morton, 2013, p. 94; Morton, 2013, p. 58). The consequence of the vastness of climate change, in other words, is that its diffuse spatiality and temporality makes the issue seem distant and non-immediate to audiences (Leiserowitz, 2005; Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; Moser, 2010). The planetary scale on which climate change exists greatly dwarfs the perceiver apprehending the issue.

Power in the threat-based version is manifest by the ways that climate change dramatically alters the livability of the planet through the alteration of global weather patterns, rising sea levels, the destruction of ecosystems and the extirpation of species (O'Neill, 2017). Thus, the fear of climate change arises from the “unknown future” that it can visit upon us, of which will be adverse to current conditions (Hulme, 2008, p. 11). Further, the power of climate change is that it is present everywhere all at once. It is not something that one can escape from given that it is “impossible to slough off” (Morton, 2013, p. 190); climate change impacts us regardless of our choice in the matter. The threat is made all the greater because it is one to which we can never truly be safe, which is due to the all-pervasive presence of the phenomenon. The consequence is that the vast magnitude of climate change results in an enormously powerful threat that exceeds the personal scope of the perceiver, which induces powerlessness, helplessness, and dread (Gordon et al., 2016).

Finally, climate change is obscure in that it cannot be experienced in a single moment, given that the climate is a decadal phenomenon, at a minimum. Granderson (2014) explains the obscurity of climate change regarding the distinction between climate and weather:

We cannot directly sense climate or changes to it, which are statistical abstractions based on average weather over a 30-year period. We encounter the climate through the weather. We observe, experience and remember changes in weather via shifting seasons, extreme

events, erratic patterns of precipitation, temperature and nutrient cycles, and changes in species' populations and distributions.

Climate is obscure because it is not directly experienced, but “encountered” through exposure to various pieces of evidence. Granderson (2014) argues that lay-people often find it problematic to consider the risk of climate change because they cannot directly sense the phenomenon due to the decadal time-scale in which it exists. The work of environmental communicators, then, is to deliver the information on climate change in a manner that allows the audience to experience its exigence.

While climate change cannot be directly experienced in a single moment due to its abstract and temporal nature, its sublimity can be directly perceived in a single moment through exposure to the impacts of climate change. Discourse plays a significant role in making the obscure threat of climate change visible and salient so that people can make sense of the issue through the apprehension of its sublimity. To summarize, the sublimity of climate change is grounded in the awe that arises from perceiving its vastness, power, and obscurity.

Methods

This thesis will build upon the existing analyses by Oravec (1981, 1996), Deluca and Demo (2000), and Peebles (2011) to uncover how texts use sublimity to motivate audiences to action on climate change. *Chasing Ice* and *Chasing Coral* are both compelling texts that use sublimity to shape audience perceptions. *Chasing Ice* argues that climate change is occurring through offering visual evidence of its effects, namely through the erosion of sublimity in glaciers. *Chasing Coral* seeks to motivate political action through making the exigence of climate change visible, followed by leading the audience out of that fear, and finally positioning them as efficacious in the face of this planetary threat. These two documentaries provide compelling and diverging positions on using sublimity to make the issue of climate change

salient as well as to empower to audiences. The following research questions will explore how that those documentaries use sublimity to reach their rhetorical goals.

- How do rhetors invoke the sublime to shape perceptions of climate change?
- To what extent do different types of sublime rhetoric productively overcome the communicative constraints of abstract representation and overwhelming threat brought forth by the immensity of climate change?
- How does conceptualizing climate change as a sublime shape the available rhetorical strategies for positioning and persuading audiences to be effective agents of change?

To answer the research questions, I rely on Burke's (1823) definition of the sublime and the methods of the rhetorical analysis of sublime discourse presented by Oravec (1981), Deluca and Demo (2000), and Peebles (2011). When examining the texts, I will focus my lens on vast, magnificent, powerful, and obscure images and verbal discourse, as defined by Burke (1823), to extract the sublime from the mundane. I use Oravec's (1981) theory of the sublime response, persona of the adventurer, and sublime rhetoric pattern as the basis for analyzing the sublime rhetoric in the documentaries. Additionally, I use these theories to explore how the documentaries overcome the communicative constraints of climate change to engage audiences with climate change.

Summary of Artifacts

To answer these research questions, I will analyze the documentaries *Chasing Ice* and *Chasing Coral*. *Chasing Ice* follows James Balog, a storied photographer, as he seeks to capture the evidence of climate change through the calving and retreating of glaciers, something never before accomplished. The narrative arc of the film is the journey that Balog undertakes to install cameras in frigid and remotes areas of the world. Initially, Balog's efforts are met with failure. However, the photographer successfully captures the melting of glaciers and finds that their

erosion is occurring at paces that far exceed previous expectations. The climax of the film takes place during a massive calving event where a section of glacier crumbles into the ocean. Balog takes this evidence to various symposiums to present his findings to scientific audiences. His evidence raises concerns about the pace at which the climate is warming, further asserting the veracity of climate change.

Chasing Coral which was filmed during the bleaching events of 2016 where coral reefs bleached across the world; the film prominently features the impact of those events on the Great Barrier Reef. Directed by Jeff Orlowski, the same filmmaker who directed *Chasing Ice*, the film initially follows Richard Vevers, a disillusioned advertising executive, and longtime diver. About a quarter of the way through *Chasing Coral*, the documentary switches focus and centers on Zachery Rago as the main character, a technician at an underwater camera company and coral enthusiast. *Chasing Coral* follows Vevers and Rago as they attempt the onerous task of capturing coral bleaching through time lapses. The effort is unsuccessful mainly due to the novel and troublesome nature of using underwater cameras for this purpose. The crew resort to manually taking photos at specific locations and times to accomplish the task. In the process, the crew of the film document many healthy coral reefs dissolving into dead gray matter, portraying the dizzying extent of the damage and the emotional impact of the massive loss of life.

Précis of Chapters

In the following chapters I first examine *Chasing Ice* to explore how it uses the erosion of sublimity to provide evidence to climate change. In the next chapter, I analyze the documentary *Chasing Coral*, and how it illuminates climate change through the death of corals while also positioning audiences as efficacious political actors. In my final chapter, I explore the implications of the sublimity of climate change on environmental communication.

We have a problem with perception, because not enough people really get it yet.
James Balog

Chapter 2: Chasing the Loss of Sublime in *Chasing Ice*

In 2012, *Chasing Ice* debuted to resounding critical acclaim. The narrative of James Balog, a rugged photographer capturing crumbling glaciers, seemed to strike a cultural nerve in a period of time when the fighting raged fierce between climate science accepters and deniers. The film won the Excellence in Cinematography award at the Sundance Film Festival in 2012 and an Emmy in 2014 for the category of Outstanding Nature Programming, among 27 other awards. Critics have also weighed in with their thoughts. Andrew Moseman (2012) praised the film by saying, “The movie...is a gripping way to drive home the reality of climate change through stunning footage from the edge of the world.” Roger Ebert (2012) stated,

At a time when warnings of global warming were being dismissed by broadcast blabbermouths as “junk science,” the science here is based on actual observation of the results as they happen. When opponents of the theory of evolution say (incorrectly) that no one has ever seen evolution happening, scientists are seeing climate change happening right now — and with alarming speed. Here is a film for skeptics who say, “we don’t have enough information.”

Other critics, namely scholars, have not been so taken by the film. Jerilynn Jackson (2015) contends that *Chasing Ice* is blameworthy because “narrating glaciers as climate change ruins normalizes and predetermines a glacier-free world not yet in existence while reducing the range of imaginable climate change-influenced futures” (p. 479). In Jackson’s view, *Chasing Ice*’s depictions of melting of glaciers may reify the very problem that the film seeks to address. From this perspective, the film is hindered by its very contribution to the discourse of climate change.

Chasing Ice follows the photographer named James Balog, as he seeks to capture the evidence of climate change through the calving and retreating of glaciers. The narrative arc of

the film is the journey that Balog undertakes to install cameras in frigid and remotes areas of the world. Initially, Balog's efforts are met with failure. However, the photographer is ultimately successfully in his endeavor to capture the melting of glaciers. The climax of the film is a massive calving event where a section of a glacier crumbles into the ocean. Balog takes this evidence to various symposiums to present his findings to scientific audiences. His evidence raises concerns about the pace at which the climate is warming, further asserting the veracity of climate change.

Chasing Ice demonstrates a novel use of sublimity. The film is not so much compelling the audience toward political action through "experience[ing] the limits of self" (Stormer, 2004, p. 213), such as how John Muir used the sublime when advocating for Yosemite (Oravec, 1981). Rather, the film uses the sublime to directly confront climate skepticism. It presents receding glaciers as evidence that climate change is presently occurring as a result of the anthropogenic emission of fossil fuels.

In this chapter, I argue that *Chasing Ice* uses a novel modification of sublime rhetoric to overcome one of the main constraints surrounding the perception of climate change—diffuse spatiotemporality—and thereby affirm the its existence. By capturing the calving and retreating of glaciers across the world, the film uses the erosion of the sublimity of glaciers to provide visual evidence of climate change. To prompt the audience to accept the reality of climate change, the film modifies Oravec's (1981) pattern of sublime rhetoric while still relying on the sublime conventions of the literary persona of the adventurer—in this case, the intrepid photographer Balog—and the elicitation of the sublime responses of exaltation and dread. *Chasing Ice's* primary modifications to the sublime rhetoric pattern lies are its allusion to climate change's threat through synecdoche, its development of climate change as a sublime phenomenon, and its emphasis on provoking the fear of climate change in the audience.

However, while the film uses the sublime to persuasively depict the reality and significance of climate change, its narrative and conclusion does little to move the audience from a state of fear and concern to productive action.

The Erosion of Sublimity

Chasing Ice modifies Oravec's (1981) pattern of sublime rhetoric to overcome the constraints of climate change's diffuse spatiotemporality, but not its overwhelming threat. Climate change is diffuse due to its spatially and temporally remote characteristics (see Moser, 2010). These qualities are in direct opposition to the audience perceiving climate change as salient (O'Neill & Nicholson-Cole, 2009) and, together, encompass the constraint of climate change's diffuse representation which *Chasing Ice* seeks to overcome.

Chasing Ice modifies and reorders Oravec's (1981) pattern of sublime rhetoric to overcome the constraint of climate change's diffuse spatiotemporality to induce the audience to accept the scientific consensus on climate change, rather than to motivate them to political action. First, *Chasing Ice* evokes the perception of ice's magnificence and sublimity and then elicits feelings of loss and deprivation by visually depicting the erosion of ice's sublimity. Second, it details additional evidence for climate change and describes the potentially calamitous consequences of humanity not addressing the issue; rather than leading the audience out of their fear, the film emphasizes that threat and positions the audience as responsible for its perpetuation. Third, it concludes by juxtaposing the erosion of ice's sublimity with additional depictions of ice's grandeur to reassert the reality of climate change.

This modification of Oravec's (1981) pattern may be necessary to overcome the vast, diffuse nature of climate change which has often been a constraint in communicating about the issue (Moser, 2010). Climate change is only visible through the "shadow it casts" (Morton, 2013, p. 85); the consequence is that people can find it difficult to comprehend (Moser, 2010). *Chasing*

Ice is attentive to this constraint. Balog argues that people need a “believable, understandable piece of visual evidence...something that grabs them in the gut” instead of “more statistical studies, more computer models, more projections” (Orlowski, 2012). The retreat of glaciers, notably vast sublime objects, provide this evidence. Their rapid erosion and collapse indicate that something terribly unnatural is occurring and that climate change is in fact happening.

The Adventurer, Sublime Ice, and the Threat of Loss

After an introductory montage of catastrophe imagery and media pundits clashing over the veracity of climate change to set the context for the film, *Chasing Ice* introduces James Balog and constructs him as an adventurer. The persona of the adventurer is used in sublime discourse to give a vicarious access point into the sublime response, as well as to manifest a human standpoint into that experience. Oravec (1981) writes that Muir used a literary technique of the “persona to identify the readers' more or less passive literary experience with the activity of the figure Muir called the ‘true mountaineer’” (p. 248). Broadly, the features of the “true mountaineer” can be taken as the characteristics of the adventurer, someone who encounters sublimity while traversing unknown landscapes and then brings that knowledge back to civilization.

Balog’s character serves a similar purpose, as he journeys to far off locales to witness melting glaciers, then captures that evidence, and returns to edify the public. In doing so, Balog’s character mirrors Muir’s persona, as the latter “establish[ed] a human perspective upon the complexity of nature and ground[ed] his descriptions in scientific fact (p. 250). Further, Balog’s physical exertion from hiking glaciers and climbing rocky cliffs offers the audience a vicarious access point for audiences to experience his quest to capture melting glaciers. Oravec (1981) maintains that “By extending the aesthetic experience of the sublime to include intense physical experience, Muir also brought his readers into even closer contact with the natural scene, and

encouraged contemplation upon their place in it” (p. 251). Balog’s adventures are similarly vicarious and the contemplation encouraged by Balog’s bodily experience furthers the film’s goal of engendering the audience’s acceptance of the scientific basis for climate change; this transpires through the photographer’s adventures on the very glaciers whose sublimity are being eroded. Balog’s bodily experiences are similarly vicarious and the contemplation encouraged furthers the film’s goal of inducing assent to the scientific basis for climate change; this transpires through the photographer’s adventures on the very glaciers whose sublimity are being eroded.

Chasing Ice introduces Balog as he is photographing remnants of broken ice on a bleak shore. The scene builds Balog’s persona as an adventurer through displaying his dedication to getting the “right shot.” Balog and his assistant are on a rocky beach where waves collide with the strewn boulder-sized ice hunks. The photographer resolutely strides among the ice chunks, looking for a place to set up for a camera shot. Balog’s assistant remarks “The first time I worked with James, it was obvious how he goes about things, you know? He pushes it... he's looking for something” (Orlowski, 2012). Balog supports this evaluation with “Alright, I'm almost certain to get wet, Okay? In fact, I think I'm so certain to get wet, I'll take my boots off” (Orlowski, 2012). The photographer then clammers onto the chunks of ice while waves crash onto him as he resolutely captures the images. The film positions Balog as the adventurer roughing it in the untamed, frigid wild to bring the audience closer to the sublime experience that he is capturing. By introducing Balog with this scene, the film sets the groundwork for the audience to vicariously experience the sublime that he encounters and captures with his photography.

This scene alludes to the erosion of the glacier’s sublimity through the synecdoche of beautiful ice chunks, which represent the erosion of sublimity in the glaciers; the ice chunks in

this scene are remnants of once towering glaciers that have washed ashore. The ice chunks are presented as beautiful, rather than sublime, and the resulting sentiment is one of pleasant contemplation. Burke (1823) contends that a beautiful object is separate from sublimity by virtue of its small size, delicacy, gradual variation, and elegance. The ice chunks are indicative of the evidence of climate change through their erosion from sublime objects to the beautiful.² The ice chunks, then, are also synecdoche for this consequence as their shaping via melting has contributed to sea-level rise. As Balog states when the film's title is next displayed over an image of the ice chunks, "the story is in the ice" (Orlowski, 2012). After this scene, the film evokes the perception that ice is magnificent.

Next, *Chasing Ice* evokes the sublimity of ice through Balog's imagery and verbal descriptions. The film presents peculiar images of an iceberg with a gaping hole and a piece of ice precariously perched on top, an ice field stretching out into the horizon, and another curiously shaped iceberg. Balog narrates with an impassioned voice: "There's this limitless universe of forms out there...That is just, surreal, other worldly. Sculptural, architectural...insanely, ridiculously beautiful" (Orlowski, 2012). Beauty, Edmund Burke (1823) writes, is found in small objects; but vast objects, however beautiful, are sublime. However, Balog's descriptions of ice evoke both the beautiful and the sublime. The icebergs and icefields shown are "smooth and polished," befitting beauty, but also "rugged and negligent," which are characteristics of the sublime (Burke, 1823, p. 182). Ice is also delicate, vulnerable to change from adverse conditions; but at the same time can also be powerful, such as glaciers creating new landscapes by gouging out entire valleys.

² Indeed, the primary consequence of melting ice presented by the documentary is the potential for calamitous sea-level rise, which it describes later in the film when Balog discusses the implications of the melting Greenland ice sheet.

By beginning with the beautiful ice chunks and then evoking the perception of sublimity of ice, *Chasing Ice* alludes to the loss of the sublimity in the glaciers, which is the film's primary rhetorical strategy to visually provide the evidence of climate change. The allusion synecdochally represents the fate of ice once it has eroded: the ice melts until it becomes nonexistent. The presentation of reduced ice not only offers visual evidence of climate change, it also alludes to a chief concern of the melting Arctic: as the ice melts, sea levels rise. The byproduct of glaciers and icebergs melt are the ice chunks and meltwater. *Chasing Ice* does not offer visual representation of sea level rise. Rather, the visual evidence is the ice chunks, which offer representation through existing in a liminal state: the ice chunks are not quite sublime ice, but are also not yet meltwater. Sea level rise is further given representation through the assumption that the ice chunks have melted to achieve their current state. Additionally, the synecdoche of melting ice supports the argument that sea level rise is an enormous issue, as the very objects that are melting are themselves vast. *Chasing Ice* does not highlight any other consequence of the ice melting other than sea level rise, which is developed further into the film.

After alluding to the loss of sublimity in ice and then constructing perception of its magnificence, *Chasing Ice* continues developing Balog's adventuring persona through descriptions by prominent people. Louie Psihoyos, an Oscar-winning filmmaker, speaks of Balog's prowess as a photographer. Psihoyos highlights Balog's ability to capture sublimity by arguing that he focuses on what "humanity is doing from a very large perspective" (Orlowski, 2012). Kitty Boone from the Aspen Institute, an international non-profit think tank, equates Balog to a venerated and historical figure in natural photography:

Ansel Adams was the father of all landscape photography and he created a movement around wilderness that only images could do. And now you have James with that same kind of eye, but being able to do more with the technology (Orlowski, 2012).

Next, Dr. Sylvia Earle from the National Geographic Explorer asserts that Balog's drive is not just "to climb mountains and hang off cliffs. He has the ability to capture it in a way and communicate it. Observing it and knowing it is one thing, but sharing it and sharing it effectively can change the world"(Orlowski, 2012). Such descriptions of Balog enhance his persona's ethos as an adventurous photographer who is capable of taking the risks necessary to capture nature's magnificence.

First Phase: The Erosion to the Sublimity of Ice

Shortly after the development of Balog's persona, *Chasing Ice* transitions to its first phase of sublime rhetoric. This phase is similar to how Muir began his sublime rhetoric with the perceptual evocation of outstanding nature and then situating that sublime object as threatened by massive human development to elicit feelings of loss and deprivation (Oravec, 1981). Balog travels to the Solheim Glacier in Iceland and witnesses the retreat of that glacier. The camera pans over the muddy gully, the Solheim glacier having retreated to the edges of the expanse. Balog gives a voice to this scene: "There was a real sense of the glacier just coming to an end; and like this old, decrepit man...falling into the earth and dying" (Orlowski, 2012). The camera pans back to depict a wide view of the area, the gully of the ruined glacier littered with boulder-sized chunks of ice. Balog, now small from the distance, appears diminutive in comparison to the fractured glacier towering over him. In the next scene, Balog returns to the Solheim glacier after six months and is astounded at the amount the glacier had retreated. To support this awe, the film presents an image of the glacier taken six months ago and then again at their current time, outlining the immense area of the glacier that had receded. Balog's figure of six feet is positioned for scale. The erosion of the glacier's immensity is indicative of a larger phenomenon, that of climate change.

The erosion and collapse of the glacier are an incomplete picture of the human threat to the natural sublime object. This is unescapable, as climate change needs visual context for it to become evident (Morton, 2013). Melting glaciers offer a solution to this vexing problem of visibility. Climate change is a decadal phenomenon that is not visible to the naked eye; it is a process and made visible through its impacts. Smith & Joffe (2009) write that “the retreating glacier provides a potent symbol of the scale of the problem, made salient by ‘before’ and ‘after’ photographs which give the viewer a baseline upon which to form their representation” (p. 652). These images demonstrate the evidence that glaciers are retreating, alluding to the sublimity of climate change.

Soon after, *Chasing Ice* again evokes the perception that ice is outstanding and then elicits feelings of deprivation from describing their ruin. The film evinces the sublimity of these images through still photographs of massive glaciers and icebergs that briefly fill the scene. The ice shown is desolate, inhabiting a hostile landscape that extends to the end far reaches of what the pictures make visible, suggesting a sort of endlessness. Balog describes photographing the ice with “...Richard Avedon and Irving Penn spent their entire careers doing portraits of faces essential, and found endless variation and endless beauty and endless magic in those faces and for me, that's the same thing as what's going on here” (Orlowski, 2012). After these visual and verbal descriptions to evoke the perception of vastness, Balog pivots to the loss of the vast ice:

You know you feel this tension between this huge, enduring power of these glaciers and their fragility. You know, they came from a great, impassive place, and they're just, they're crumbling into these tiny little blocks of ice going off into the ocean (Orlowski, 2012).

The deprivation of ice crumbling is furthered by the next scene, which depicts a 1500 foot-long glacial peninsula on the Store Glacier in Greenland crumbling into the ocean. This depiction

evokes the perception of vastness through the visual imagery of this massive peninsula crumbling, supported by the lines drawn on it to represent the 1500 feet for scale. A roaring sound comes forth as the peninsula crumbles, detaching from the larger glacier as it turns on its side. After enacting this phase of sublime rhetoric, *Chasing Ice* turns to Balog's initial climate skepticism and his eventual acceptance of the evidentiary basis for climate change.

After scenes of him installing cameras, Balog admits that he initially did not accept the existence of climate change; he thought the graphs were hyperbole and that humans were not "capable of changing the basic physics and chemistry of this entire huge planet" (Orlowski, 2012). It wasn't until he witnessed hard evidence in the form of ice cores³ that he began to accept the scientific consensus. Balog's admission of skepticism provides complexity to the persona of the adventurer, casting it in more human terms. The admission seemingly offers an argument against climate change, which is countered by Balog becoming the adventurer and the evidence to which he uncovers on that journey. Additionally, Balog stands in for the portion of the audience that does not accept the scientific consensus on climate change. By creating identification with the once-skeptic adventurer, *Chasing Ice* inoculates the audience's against counter-arguments to claims against climate change's existence.

Balog recounts that his skepticism needed a focal point to visually demonstrate the impacts of climate change. After some consideration, he realized that ice was the answer:

I did a couple years of research on the climate change story, trying to find what you could photograph about climate change that would make interesting photographs. And I eventually realized that the only thing that... to me...sounded right, was ice (Orlowski, 2012).

³ Ice cores are drilled out sections of ice that scientist analyze to understand geologic climate history.

Thus, *Chasing Ice* depicts many instances of ice to provide the evidence of climate change to the audience. However, simply depicting the evidence is not enough. As Oravec (1981) contends, the adventuring persona "establish[es] a human perspective upon the complexity of nature and ground his descriptions in scientific fact" (Oravec, 1981, p. 250). Similarly, in the next phase, Balog interprets the evidence that he captures through his adventuring persona to provide not only a human perspective, but a scientific one as well.

Second Phase: Shifting to Planetary Deprivation

Balog's skepticism-turned-acceptance transitions into the film's second phase of sublime rhetoric where *Chasing Ice* shifts from the threat to glaciers to the larger peril of climate change. Specifically, the documentary's narrative shifts from Balog's journey to photograph melting glaciers to discussing the scientific evidence on climate change and then describing the negative repercussions of unabated climate change. The film presents a digital graph, with the lines for atmospheric carbon dioxide parts per million and temperature rising and fall together throughout geologic time. Dr. Tad Pfeffer, a glaciologist, narrates that this rise in carbon dioxide is unprecedented, preparing the audience for the forthcoming calamitous prognostications:

And over the last 800,000 years or so, atmospheric carbon dioxide was never higher than about 280 parts per million. Until we started adding carbon dioxide to the atmosphere.

And now it's about 390 parts per million. And that's about 40 percent higher than it was when carbon dioxide was only varying for natural reasons. But now we're heading for 500 parts per million or more (Orlowski, 2012).

Dr. Synte Peacock, a climate scientist, then claims that this pace

is a hundred to 1000 times greater than the pace at which things have changed by themselves, naturally. The amazing thing to me is that we're already seeing impacts because the change already has been so small, right? It's been .8 degrees C, about 1.5

degrees Fahrenheit since 1850 or so. And yet we've seen so much stuff...stuff, crazy stuff going on already” (Orlowski, 2012).

This last narration is supported with images of houses demolished by an unnamed natural disaster, one spray painted with “We are ok.” This narration argues that despite such small changes—ones so small that the audience may have overlooked them—the climate is unnaturally changing. This argument sets up the rest of the climate change sublime, that small changes can lead to global disasters.

After presenting the scientific evidence and interpretation of climate change, *Chasing Ice* shifts its narrative from the threat of glaciers to the threatening exigence of the climate change sublime by detailing the possible repercussions of climate change. This shift to the larger consequences of climate change argues that the threat encompasses more than just ice, it also includes the entire planet. Ice, then, is synecdoche for climate change as melting ice stands in for climate change, providing the context that makes the phenomenon visible. The documentary continues with Dr. Terry Root, another climate scientist who states:

Plants and animals are already going extinct. They're going extinct a hundred times faster now than they did 1000 years ago. And as the climate continues to warm, we're going to lose more and more, and more species because we're going to have more surprises happening. We're going to have a mass extinction event that could happen within the next 200 to 300 years. Mass extinction event means that we lose half, or maybe three quarters of the number of species that we have on the planet. Are we going to be losing the plants that clean our water? The plants that clean our air? If there's no pollinators out there to pollinate, then we're going to have to do it by hand (Orlowski, 2012).

Dr. Root is evoking the threat of the climate change sublime through the mass extinction of organisms. Awe arises from contemplating the current rate of extinction and comparing that with

the rate at which organisms would be extirpated from a changing climate. This rhetoric is apocalyptic as it envisions a massive end of life (Gunn & Beard, 2000; Swyngedouw, 2010) through a changing climate; the sense is that the end will surely come if climate change continues unabated.

The climate change sublime is made more salient through describing the impacts of climate change on the United States. A scientist named Dr. Thomas Swetnam says:

We have seen an increasing in the length of the fire season by more than two months; larger fires in the Western United States in the last 20 years; and we've seen hotter fires - more extreme fires burning. It's not just by chance that I'm seeing many rare events happening all in sequence, you know. There's a reason for that. We're seeing extraordinary changes in our environment (Orlowski, 2012).

Swetnam's narration is supported by aerial footage of massive smoke clouds blotting out the sky and landscapes aflame. Lastly, perhaps in a message to the science deniers watching the film, Balog asserts:

If you had an abscess in your tooth, would you keep going to dentist after dentist until you found a dentist that said, "Ahhh, don't worry about it, leave that rotten tooth in." Or would you pull it out because more of the other dentists told you that you had a problem (Orlowski, 2012)?

Houses torn asunder from unnamed natural disasters support Balog's narration in these scenes, one torn in half and one collapsing in on itself. Through all the preceding evidence, *Chasing Ice* provides synecdochal representation to the climate change sublime. These pieces of evidence assert that not only is climate change veracious, but potentially catastrophic. Previous research finds that images of catastrophes related to climate change impart the importance of the issue to audiences (O'Neill, Boykoff, Niemeyer, & Day, 2013). Similarly, the documentary's depictions

of catastrophe images, supported with descriptive language, rhetorically function to drive the personal importance of climate change. Following this evocation of the climate change sublime, *Chasing Ice* further emphasizes the fear of the climate change sublime while situating humans as responsible.

Third Phase: Heightening the Fear of Climate Change

To this point *Chasing Ice* has used sublime rhetoric to emphasize the overwhelming, immense threat posed climate change. This technique can evoke a sense of personal insignificance, one of the key features of the sublime response. With respect to climate change, this pattern leads to one of the persistent challenges in communicating the issue: showing how seemingly insignificant humans are culpable for this planetary threat in order to motivate action. Rather than address this constraint directly, *Chasing Ice* instead heightens fear to assert the salience of climate change.

Following evocation of the climate change sublime, the film presents images of glaciers crumbling into the ocean and then an aerial view of Balog standing on a glacier. The photographer states:

You know our brains are programmed to think that geology is something that happened a long time ago or it will happen a long time in the future. And we don't think that can happen during these little years that we each live on this planet. But the reality is that it does. That things can happen very, very very quickly. We're living through one of those moments of epochal geologic change right now. And we humans are causing it (Orlowski, 2012).

This narration implicates humans as the drivers of climate change while also highlighting that the climate could rapidly change for the worse if humanity does not address the issue. By doing so, the film intensifies the threat by returning to the possible catastrophes of the climate change

sublime. One scene depicts Balog as walks on a Greenland ice sheet, discussing how the melting of ice can dramatically impact humanity through contributing to rising sea levels. Balog states that, from sea level rise, a “minimum of 150 million people will be displaced” in the world and that “all of those people are going to be flushed out and have to move somewhere else” (Orlowski, 2012). Further, Balog remarks that rising sea levels will intensify the impact of natural disasters, such as typhoons and hurricanes. By intensifying the fear of climate change, *Chasing Ice* seeks to convey to the audience the salience of responsibly addressing climate change.

After scenes of Balog and his crew filming glacial caverns, the film returns to the sublime response of threat by again presenting footage of media pundits denying climate change. Balog disapprovingly shakes his head at their skepticism. This represents a turning point in the film, where the once-skeptic adventurer now has first-hand knowledge of the threats that he has experienced in the wilds. This time around, the media pundits are almost laughable in their skepticism, as they are speaking from the comfort of their news rooms where they are not privy to the evidence that the adventurer led audiences through in the wilderness.

Shortly after, *Chasing Ice* presents scenes where Balog delivers his findings to scientific audiences at various locations. In these scenes, a professionally-dressed Balog stands in front of a large screen where he supports his climate-change claims with visual evidence of the erosion of glaciers; his seated, scientific audiences are raptly attentive. Balog situates himself as credible through delivery of his claims and experiences, hard won through his dangerous exploits, to the scientific audiences; their rapt attention gives further weight to Balog’s testimony and evidence. Additionally, Balog and the documentary audience, through their adventurers together, have glimpsed the actual calamitous effects of climate change, further legitimizing the climate science presented in the film and represented by the scientific audience in these scenes.

Among the visual evidence shown, Balog first presents the recession of the Solheim Glacier. The glacier is recorded from a high angle where its recession can be clearly witnessed. The ice seemingly strips away in the time lapse, leaving a muddy lake where the glacier once rested. Balog explains that these images constitute “tangible, visual evidence of the immediacy of climate change itself” (Orlowski, 2012). Describing the images, Balog comments:

The changes are happening; they're very visible, they're photographable, they're measurable. There's no significant scientific dispute about that. And the great irony and tragedy of our time is that a lot of the general public thinks that science is still arguing about that. Science is not arguing about that (Orlowski, 2012).

Balog uses the visual evidence of climate change to illuminate the aberrant process that is the culprit: climate change. Retreating glaciers invoke a sense of certainty, fashioning the decadal phenomenon of climate change into some form of physical tangibility (Smith & Joffe, 2009).

This idea is reinforced by *Chasing Ice's* climax, the largest ever recorded glacial calving event at the Ilulissat Glacier in Greenland. Balog's two assistants are positioned at the glacier for three weeks to record any calving activity they can capture. Finally, the glacier begins to calve with a dull roar as its entire face splits from the main body; the camera zooms in on various sections, each image capturing enormous chunks of ice that calve, roil, and heave in the ocean. The scale of the entire calving is massive and each closeup depicts a section of the calving glacier that is itself immense. The glacier, something created over geologic time scales, crumbles into ocean, its vastness irrevocably reduced.

After this dramatic footage, the scene shifts to Balog presenting that footage to the scientific symposium. Balog describes the event in a way that attempts to convey the scale of the calving, supported by superimposed images of lower Manhattan onto still images of the glacier, and in doing so invokes the notion of the sublime:

It's as if the entire lower tip of Manhattan broke off, except that, the thickness...the height of it...is equivalent to buildings that are two and a half or three times higher than they are. That's a magical, miraculous, horrible, scary thing. I don't know that anybody's really seen the miracle and horror of that (Orlowski, 2012).

Balog's description aligns with Burke's (1823) sublime that is grounded in terror and astonishment. Burke describes this sublime: "Indeed terror is in all cases whatsoever, either more openly or latently, the ruling principle of the sublime" (p. 75) and "Astonishment, as I have said, is the effect of the sublime in its highest degree" (p. 74). The terror of this calving event is so pronounced that its effect is astonishing. This scene follows the development of climate change as awe-inspiring and provides synecdoche for its calamitous potential consequences. The astonishment from the calving event is not just because of its scale. The astonishment is also due to the threat of climate change and its capacity to impact such a massive object as the glacier. The synecdoche argues if climate change can impact the glacier to this degree, what else could it harm and at what scale would that harm occur?

The scale of the threat demonstrated by this scene evokes a sense of comparative insignificance to climate change. Muir used the sense of comparative insignificance to the threat of human depredation in the first phase of this sublime rhetoric pattern (Oravec, 1981). However, Muir led the audience out of their fear whereas *Chasing Ice* heightens it to impart the saliency of climate change. This emphasis on fear on such a macro scale may be problematic as "Being made to feel insignificant in the face of human-made environmental destruction may cause bewilderment and inertia at the thought of rectifying a problem as massive as one sees" (Peeples, 2011, p. 383). *Chasing Ice* heightens the comparative insignificance to climate change with seemingly little forethought to the human agency needed in addressing the issue. Indeed, O'Neill and Nicholson-Cole (2009) found in their research that an emphasis on one's comparative

insignificance to climate change “tend[s] to render [people] feeling helpless and overwhelmed when they try to comprehend their own relationship with the issue” (p. 375). *Chasing Ice* problematically evokes a confrontation with the climate change sublime only tending to the disempowering aftereffect through the beautiful.

Fourth Phase: The Return to Beauty and Sublimity of Ice

Chasing Ice ends with grand depictions of ice to elicit exaltation in the audience, similar to how Muir ended his pattern of sublime rhetoric with evocative, exalting language (Oravec, 1981). However, to mitigate the personal insignificance to the climate change sublime, *Chasing Ice* begins its last phase with the beautiful. The scene presents Balog again photographing chunks of ice on a pebbly beach, perhaps the same beach from the beginning of his adventure. The imagery is not vast like the sublime, but beautiful through its small size and delicate contours (Burke, 1823). The beautiful is on the scale of humanity and, accordingly, the ice chunks do not dwarf Balog. By leveraging first the beautiful and then the sublime, *Chasing Ice* evokes a space for reflection (Peeples, 2011) through the comparatively-scaled beautiful where one can envision that change is within reach. In this case, the beautiful is an access point to the sublime, a stepping stone to that vastness. Change to the vastness of climate change, of which the synecdoche of ice represents, is constituted as possible through that relationship.

During these scenes, *Chasing Ice* again situates the audience as responsible through reminding them of culpability in exacerbating climate change. Oravec (1981) writes that Muir “reaffirmed his readers' understanding of scientific...laws, while implying that the waste could continue only through their own passive acquiescence” (Oravec, 1981, p. 255). Balog says:

When my daughters, Simone and Emily, look at me 25 or 30 years from now and say, what were you doing when, when... global warming was happening and you guys knew

what was coming down the road. I want to be able to say, guys, I was doing everything I knew how to do (Orlowski, 2012).

Drawing on the comic framing of climate change where humanity is redeemable despite our mistakes (Foust & Murphy, 2009), *Chasing Ice* positions the audience as responsible through the identification with the persona of the adventurer. This admission of Balog reminds the audience that their current actions are responsible for the fate of their children's wellbeing. After this scene, the film ends on pictures of ice to evoke the apprehension of their wonder

Chasing Ice modifies the sublime rhetoric pattern to provide evidence to climate change, whereas Muir used his pattern to indirectly motivate political action (Oravec, 1981). The film's purpose is to provide evidence of climate change by heightening the fear that results from its threat to the natural sublime object of glaciers. *Chasing Ice* depicts the erosion of glaciers through time lapses that capture never before seen footage of their melting, retreating, and calving. Woven into the heightening of fear is an emphasis on the audience's culpability for their contribution to climate change through their fossil fuels emissions. The film ends with a return to the beautiful and the exaltation of the glaciers, but not to indirectly motivate political action. Rather the film's purpose to provide the audience a scalable entry point out of the comparative insignificance to the climate change sublime and back into the exaltation of the glaciers through the beautiful.

Chasing Ice overcomes the communicative constraint of climate change's diffuse representation at the expense of overwhelming the audience with the immense threat of climate change. The film leverages the audience's transcendent experience from the exalting ice not to indirectly motivate political action, but to lead audiences out of their fear. The film attempts this through the exaltation of vast ice, which is accessed through the entry point of the comparatively-scaled beautiful ice chunks. However, this attempt is insufficient at leading the

audience out of their fear because it does not position as the audience as capable of acting against climate change and its immensity. In their research on the effect of climate change imagery on audience-efficacy, O'Neill and Nicholson-Cole (2009) found that their participants

tended to note that their conceptions of climate change as a global and to some extent distant and future issue made individual actions akin to 'a drop in the ocean,' unlikely to make any significant contribution in relation to the scale of the problem (p. 371).

This research suggest that the presenting global scale of climate change disempowers audiences through their comparative insignificance, which is a direct result of sublime rhetoric, as the anti-natural sublime used as a threat to the natural sublime object is necessarily vast. *Chasing Ice* disempowers the audience and reduces their agency through this comparative insignificance, ultimately yielding to the overwhelming threat constraint of climate change. *Chasing Ice's* success at providing representation to climate change ultimately results in its failure to promote audience engagement, leaving the situation little better than when the film began.

This is inevitable, this great transformation, and that's what makes me so optimistic.
Richard Vevers

Chapter 3: Chasing the Sublime in *Chasing Coral*

Coral reefs around the world experienced a massive bleaching event over a period of three years, from 2014 to 2017. Coral bleaching occurs when the ocean waters are too warm to be habitable for the coral (Schellnhuber, 2012), which is directly linked to climate change as the oceans absorb 90% of the heating (IPCC, 2013) from this anthropogenically induced phenomenon. The coral then ejects their algae, which consequently “bleaches” the animal, reverting their color to the bone white of their skeletons. Bleaching events ensued worldwide in 1998 and 2002, though the events of 2016 were shockingly alarming, in particular to the Great Barrier Reef, a 25 thousand-year-old ecosystem on the eastern coast of Australia, the most massive living structure on the planet, and the only reef large enough to be visible from space (Jacobson, 2016).

Only 8.9% of 1,156 surveyed reefs at the Great Barrier Reef were found to have avoided bleaching in 2016, compared with 44.7% of 638 in 1998 and 42.4% of 631 reefs in 2002 (Hughes et al., 2017). The damage was so extensive that two-thirds of the Great Barrier Reef experienced bleaching, which killed half of the corals in those areas (Chen, 2017). This massive loss of life is representative of the overwhelming threat of climate change and perhaps foreshadows the consequences of failing to adequately mitigate its worst impacts. As such, these bleaching events have prompted much research and public debate on this issue. To this end, a documentary entitled *Chasing Coral* documents the bleaching event in 2016 at the Great Barrier Reef to bring awareness to the impacts of climate change.

Chasing Coral which was filmed during the bleaching events of 2016 and prominently features the impact of those events on the Great Barrier Reef. Directed by Jeff Orlowski, the same filmmaker who directed *Chasing Ice*, the award-winning film released in 2017 and was

praised for its “strength [that] lies within the pathos generated by the visuals that showcase the exact nature of [the coral’s] precarious state (Ooi, 2017). Cory Wu 2018 reviewed the film, writing that its “seamless combination of informative commentary and engaging storytelling make *Chasing Coral* not only an entertaining watch, but a necessary one to understand the full threat climate change already poses to our environment.” The film’s high praise reflects the emotional narrative that drives the saliency of the scientific information within the documentary.

Chasing Coral initially follows Richard Vevers, a disillusioned advertising executive, and longtime diver as he works to illuminate the importance of the ocean to the general public. About a quarter of the way through *Chasing Coral*, the documentary switches focus and centers on Zachery Rago as the main character, a technician at an underwater camera company and coral enthusiast. *Chasing Coral* trails Vevers and Rago as they attempt the onerous task of capturing coral bleaching through time lapses. The effort is unsuccessful mainly due to the novel and troublesome nature of using underwater cameras for this purpose. The crew resort to manually taking photos at specific locations and times to accomplish the task. In the process, the crew of the film document many healthy coral reefs dissolving into dead gray matter, portraying the dizzying extent of the damage and the emotional impact of the massive loss of life.

Chasing Coral demonstrates sublime rhetoric that reflects the exigency that the planetary threat of climate change represents. Therefore, the film directly calls for political action to mitigate climate change. This call to action does not align with Oravec’s (1981) last phase in her pattern of sublime rhetoric, as Muir’s rhetoric indirectly motivated political action through transcendence. *Chasing Coral*’s modification to the sublime rhetoric pattern is perhaps due to the differing political and ecological context to which it is responding.

I argue that the documentary *Chasing Coral* overcomes the constraints of the climate change sublime by modifying Oravec’s (1981) pattern of sublime rhetoric. The film modifies the

pattern of sublime rhetoric to represent the exigence of climate change with signs that constitute the phenomenon's visibility and to address the overwhelming threat brought forth by that representation. The film first represents the sublimity of climate change with disempowering, yet saliency-driving catastrophe imagery and narrative. Then, the film offers the audience efficacy to empower them to be political actors in the face of the immense planetary threat of climate change, of which the death of corals is only a symptom.

Sublime Rhetoric for Planetary Political Action

Chasing Coral modifies Oravec's (1981) pattern of sublime rhetoric to overcome the constraints of climate change's diffuse spatiotemporality and its overwhelming threat. The vastness of climate change makes it temporally and spatially diffuse (Moser, 2010) and visible only through the "shadow it casts" (Morton, 2013, p. 85). To state it plainly, I cannot point to climate change and say, "there it is." However, I can point to the effects of climate change and say "there, do you see the shadow of climate change?" The other constraint of climate change, its overwhelming threat, is problematic because the component of efficacy given in climate change discourse does not often stick (O'Neill & Nicholson-Cole, 2009). The scale of climate change's threat reduces audience's capability to take mitigatory actions.

Chasing Coral follows a similar pattern to Oravec's (1981) but with important differences that reflect adaptations to the immensity of climate change. *Chasing Coral's* sublime rhetoric pattern is as follows: first, it evokes the perception that coral reefs are outstanding and then juxtaposes the reefs to the threat of bleaching to educe feelings of "impending deprivation and loss." Second, it reveals that bleaching is but a symptom of climate change and expounds on the scientific evidence behind the issue and its potential consequences. Third, it leads the audience out of their fear response by creating identification with the main characters and then positions the audience as responsible through their "passive acquiescence." Fourth, it situates the

audience as efficacious through emphasizing their capability to address the global issue and then directly calls political action by affirming the transcendence of exaltation from the natural sublime object of coral reefs (Oravec, 1981; p. 254, p. 255).

First Phase: The Apprehension and Threat of the Sublimity of Coral Reefs

Chasing Coral's first phase of sublime rhetoric evokes the perception of vastness in coral reefs objects through vivid visual and verbal descriptions, but then converts that apprehension into a sense of loss (Oravec, 1981, p. 254). To educe the apprehension of the sublimity of coral reefs, *Chasing Coral* highlights the magnificence of life in the ocean and then the vastness of the Great Barrier Reef, the latter of which is the focal site of the film.

Chasing Coral's first and primary evocation of the wonder in coral reefs is not the vastness of coral reefs, but by emphasizing the immense biodiversity that those reefs harbor by virtue of their vastness. Coral reefs are unique in that their reefs build provide habitat for ocean life. During a scene where a plethora of fish species swirl around a reef, Richard Vevers narrates, "Coral reefs are hugely important for the ocean, because they're essentially the nursery. And they say something like 25 percent of all marine life relies on coral reefs" (Orlowski, 2017). The documentary builds upon this evocation as it weaves throughout the film's narrative, though it is prominent in the opening scenes where a scuba-gear wearing Vevers dives into the ocean. The first scene evokes the perception of magnificence through images of a robust sea turtle, a shy clown fish pressed against the ripple of a violet anemone, and the backside of a shark laconically swimming amidst a school of fish. Vevers supports the visual wonder of these images by narrating that, "Most people stare up into space with wonder. Yet, we have this almost-alien world on our own planet just teeming with life" (Orlowski, 2017).

Later in the film, the magnificence of harbored biodiversity is imbricated with the vastness of reefs, in particular, the Great Barrier Reef which is the focal site depicted in *Chasing*

Coral. Later in the film, Dr. Charlie Vernon, a coral scientist, stands in the ocean and describes the Great Barrier Reef to be “a distance of over 2,000 kilometers. The length of the entire East coast of the United States of America” (Orlowski, 2017). Zackary Rago, upon an aerial view of this reef, exclaims “it's just amazing to think about how massive it is. And it's all alive” (Orlowski, 2017). Another scientist named Dr. Ove Hoegh-Guldberg describes the Great Barrier Reef as the “Manhattan of the ocean” (Orlowski, 2017) during a scene teeming with ocean life. *Chasing Coral* employs these imageries and verbal descriptions to evoke the perception that coral reefs are sublime objects.

Following *Chasing Coral's* first scenes that present wondrous descriptions of ocean life, the film introduces bleaching as the threat to the coral reefs similar to how Muir “juxtaposed his own descriptive and narrative pictures of nature in the wild with references to the desecration of human development” (Oravec, 1981, p. 254). The film juxtaposes images of healthy reefs with bleached or dead reefs using time lapses to emphasize the resulting disparity, as a particular scene early in the film demonstrates. Vevers visits Dr. Phil Dustan, a Marine Biologist at the Carysfort Reef in the Florida Keys to learn about coral bleaching. The two dive into a seascape of dead corals that only have an occasional fish flitting about the skeletons. The scene calls to mind an apocalypse that has already come to pass, as the seascape lacks any source of habitation that could be an impetus for life. Following the dive, Dustan and Vevers are in an office examining footage of the reef taken in 1971 and comparing that with current images, showing the audience the ruin to that location. First, Dustan plays a video of the present-day reefs in their skeletal decay. The camera moves as if the audience is exploring the annihilated seascape. A slider moves across the screen, unveiling old footage of the reef as it was in 1971, vibrant and brimming with diverse life. After a few moments of this footage, the slider returns to change the image back to the scene of the dead coral reefs devoid of biodiversity. *Chasing Coral* repeatedly

employs this juxtaposition in the film's first quarter, though it returns to this technique when its narrative demands such introspection.

Another scientist, Dr. James Porter, speaks of similar loss in Discovery Bay, Jamaica. "I started my career in love with a place, and those places have diminished. To see that loss is very devastating" (Orlowski, 2017). These images invoke a sense of awe in the audience as the tension of beauty and ugliness "give the images a force that would be lessened without the contradiction" (Peeples, 2011, p. 381). The stark disparity of the seascapes brimming with bountiful and beautiful life and the wasted remains of an ecosystem lost give weight to the issue of coral bleaching through the irreparable. Cox (1982) contends that "aspects of experience and the environment which cannot be restored, if 'lost,' are seen in their singularity—as distinct, original, rare, or exceptional" (p. 229). Thus, the value of the coral reef's beauty is accentuated as inimitability valuable through its juxtaposition with ugliness of its death.

The incongruity of these scenes promotes a sense of loss and deprivation by displaying the disappearance of biodiversity and death of coral reefs as a consequence of coral bleaching. By juxtaposing images of healthy and bleached/dead coral, *Chasing Coral* employs "perspective by incongruity," a rhetorical strategy defined by Kenneth Burke (1935) where an event's meaning is reframed by merging disparate ideas, which "alters the nature of our responses" (p. 115). The audience is invited to feel comparatively insignificant not to the wonder of the coral reefs, but to the massive devastation to that natural object. *Chasing Coral* makes evident the ruin to the coral reefs through the absence of ocean life, which signals the death of the natural sublime object. The reefs lose their wonder when its corals die, and their surrounding biodiversity vanishes. If the harbored biodiversity and coral of the Great Barrier Reef die, then any exaltation it could have provided will be lost because its vastness will be a testament of human depredation, rather than nature's wonder.

Second phase: Leveraging the Immense Awe of Climate Change

After scenes of coral bleaching, *Chasing Coral* transitions to its next phase of sublime rhetoric where it expounds on the science of climate change before detailing its enormous threat. First, the film presents scientists discussing the facts of climate change supported by visual aids, such as graphs and diagrams. In one scene, *Chasing Coral* shows coral and their drilled-out cores, which scientists analyze like they would tree rings. Dr. Justin Marshall, a marine biologist, explains that "...by looking at the history of the reef, we're absolutely certain that what we're seeing now is not a natural fluctuation. The cause is, unequivocally, global climate change driven by emitting carbon into the atmosphere" (Orlowski, 2017). After describing the evidence behind climate change, the film explores the potential for catastrophe if humanity does not address climate change.

Chasing Coral develops the immense threat of climate change through detailing the calamitous ramifications if it is not mitigated, which the film supports with sublime discourse. Marshall states that coral reefs are ecosystems whose loss would wipe out a quarter of the ocean's biodiversity. The scientist continues extrapolating while imagery is displayed of a beach crowded with people, "The little fish disappear, the big fish disappear, and then you can look at humans as one of the big fish" (Orlowski, 2017). Marshall argues that climate change could have far-reaching ramifications for not only the oceans' biodiversity but the wellbeing of humanity as well. This argument begins to build the fear-based awe of the climate change by invoking feelings of comparative insignificance to its destructive potential to dramatically alter the livability of the planet.

Marshall continues, emphasizing the scale of climate change and its impacts, "It's the beginning of an ecological collapse of the entire ecosystem. It's more than the species, the genus, the family, the order. We're talking about the possibility that entire classes of organisms would

go extinct” (Orlowski, 2017). The scientist argues that the spatial dimensions of climate change are so vast that the phenomenon can temporally erase eons of evolution through mass extinction. The scientist's narration is rife with jargon, so the film presents an image of a “tree of life” to demonstrate these concepts with branches of the tree falling off to represent the immense loss of life. The “tree of life” provides the audience a tangible frame of reference, perhaps necessary as the idea of climate change “is almost impossible to hold in mind” (Morton, 2013, p. 58).

Chasing Coral develops the threat of climate change through sublime discourse. It reveals that climate change is the actual threat to the coral reefs, loosely mirroring the pattern that Oravec (1981) observed in Muir’s advocacy to protect Yosemite:

The pattern of response paralleled that of the sublime, but instead of eliciting a feeling of comparative insignificance in the face of an overwhelming nature, he made his readers focus those feelings upon the prospect of human depredation (Oravec, 1981, p. 254).

Chasing Coral’s sublime rhetoric departs from this pattern by initially positioning bleaching as the threat to the natural sublime object before revealing that anthropogenically induced climate change is the actual, underlying threat to the coral reefs. This departure allows the film to illuminate climate change through its impacts and opens a space for reflection that aids the audience in resisting being overwhelmed from the immensity of climate change. Significantly, the fact that human folly has caused climate change means that its effects, such as coral bleaching, can be remedied by our actions, which speaks of the comedic apocalypse where humanity is redeemable despite our mistakes (Foust & Murphy, 2009). Now that the threat of climate change is clarified, *Chasing Coral* moves to its next phase of sublime rhetoric where it leads the audience out of their fear.

Third Phase: Leading the Audience out of Their Fear

Chasing Coral’s third phase of sublime rhetoric leads the audience out of their negative

emotions from climate change's threat through obviation, by way of identification with Rago, and the transference of responsibility, achieved by situating the audience as responsible for the current state of our planet's climate.. After positioning the natural sublime object as threatened, Oravec (1981) argues that Muir lead his audience out of their "hopeless condition by reminding them of their own responsibility for reversing the progress of destruction" (p. 254) and then implied that the destruction "could continue only through their own passive acquiescence" (p. 255). *Chasing Coral* departs from Muir's rhetoric by its focus on obviating "the emotional experience of the sublime" (DeLuca & Demo, 2000, p. 249), in particular, the fear that arises from apprehending the enormous threat of climate change and the grief brought forth by the loss of corals from bleaching.

Chasing Coral leads audiences out of the emotional distress from climate change through identification with Zackery Rago and his journey out of that anguish. The film introduces Rago, a young underwater camera technician, about a third of the way into *Chasing Coral* and gradually develops him into the main protagonist. Rago offers a human perspective on climate change, necessarily crucial for the threatening exigence to be vicariously interpreted (Oravec, 1981); further, his perspective is grounded in scientific inquiry as the film highlights his college education. To this end, Rago is introduced as a "self-professed coral nerd," someone who cares deeply about the fate of the corals; in particular the Great Barrier Reef, which is experiencing a massive bleaching event during the events of the documentary. The emotional impact of documenting the bleaching and death of the corals at the Great Barrier Reef has a noticeable effect on Rago. In turn, the film's portrayal of Rago's heart-wrenching journey of recording the bleaching events encourages audiences to identify with Rago and see themselves as persons who are moved by the threatening exigence of climate.

Chasing Coral portrays Rago's human experience to create identification with the

character by documenting many his failures and misfortunes. First, Rago experiences exasperation from the malfunction of underwater cameras that do not adequately capture the bleaching events in Hawaii, Bermuda, and the Bahamas. However, he continues doggedly to a predicted bleaching event at the Great Barrier Reef. Once Rago arrives, Tropical Cyclone Winston, the most intense cyclone recorded in the Southern Hemisphere (Yulsman, 2016), hits Australia's eastern coast. The cyclone cools the waters where the team planned to document the bleaching, providing another setback, however welcome the news of less bleaching. Voicing his frustration tangled with relief, Rago states "It actually makes me ecstatic to think that [the coral reefs are] gonna make it through this event, but at the same time, we've tried so hard to capture this" (Orlowski, 2017). Because the storm has averted the bleaching event at the team's station, Rago and his team quickly travel to a location farther north, without their underwater cameras, since uninstalling and reinstalling them would take too much time. Once at this new locale, Rago and the team manually document the transition of the coral reefs from vibrancy to death. Rago accomplishes this documentation by diving into numerous locations where he photographs the coral reefs with exact precision, spending four hours a day underwater. Rago describes the drudgery of this repetitive labor:

You would find your markings for the tripod, put down each leg at the correct heights, and then you would have reference points that you could then attach the laser beams to and then I had a lamination of the first day's shots. And then you would take two minutes of footage and then you'd pick everything back up, and move onto the next site and do the same thing over again. And then again and again. And you do that essentially 25 times a day (Orlowski, 2017).

Rago's self-sacrifices offer the audience an example, albeit an extreme one, of the qualities needed to address climate change and its impacts. However, the extremity of this exemplar

allows audiences to envision a spectrum of possibilities in addressing climate change, as the film does not cast judgment on those who are unable to commit at this level.

Lastly, Rago experiences the emotional impact of observing first-hand the loss of something loved. The toll this takes on the character is intensely palpable, as evident by his drawn-out features, blank eyes, and hoarse voice. Speaking of this experience, Rago states:

We designed, uh, something originally to do this project without emotions, and when we began doing this manually at Lizard Island, you have the emotional ties to it. You are down there. And then to sit there for a month, and every single day watch something new around you die that you saw yesterday-- It's just difficult...You forget what it looked like at the beginning. And some days, when you go back, and you're sitting down there looking at it now, and it doesn't look real. And you-- It's not even-- You can't even accept it. And then you open your eyes and it's dead as far as you can see...See, I'm not even mad that I'm leaving, because it's just so miserable here.

The audience witnesses the terrible toll that the experience has on Rago as he loses something precious. Rago's experience is supported with underwater imagery of him crumbling necrotized corals in his hands, a symbol of the character being unable to do anything but watch as his beloved coral reefs suffer and then perish. The audience is invited to feel this grief through the evocation of the wonder—and then loss—of the corals and their harbored biodiversity. *Chasing Coral* obviates the brunt of the fear of climate change and grief from the loss of corals through the audience's connection with Rago, mitigating the overwhelming threat.

After evoking consubstantiality with Rago, *Chasing Coral* positions the audience as responsible for climate change through their “passive acquiescence” (Oravec, 1981, p. 255). The film situates the audience as responsible for climate change through a scene where the exhausted divers have just finished another arduous day of underwater filming. They climb aboard a

floating restaurant that temporarily serves as their base of operations and encounter a party. The film depicts the partygoers in a lurid light as they dance hedonistically to thumping music, unaware of the tragedy transpiring below their feet. Vevers states:

This is one of the rarest event in nature happening, and everyone is just oblivious to it. And you can't blame them for it. I mean, it's-- It's-- It's just-- Almost typical of all of humanity. This is going on and no one is noticing (Orlowski, 2017).

With this scene, the film gives the audience a choice: whether to be oblivious and hedonistic like the partiers or dismayed yet engaged like Vevers and Rago. Both parties are responsible for the anthropogenically induced climate change, yet only one has an “appropriate response” to the state of the world. By inviting the audience to dis-identify with the partiers and their foolish behavior, the scene reinforces audience identification with the main characters.

Now that the film reminds the audience of their responsibility in the matter, the film affirms that the loss of the reefs can only occur through the audience's passive acquiescence.

Vevers states:

Losing the Barrier Reef has actually gotta mean something. You can't let it just die and it becomes an old textbook. It's got to cause the change that it deserves. Us losing the Great Barrier Reef has got to wake up the world (Orlowski, 2017).

Vevers thus urges the audience to cast aside indifference and be concerned about the outcome of the reefs. Not only does the loss of the Great Barrier Reef need to wake up the audience, but the audience may also need to help wake up the world.

Fourth Phase: Motivating Audience Action

After leading the audience out of their overwhelming experience, *Chasing Coral* empowers the audience by depicting exemplars taking mitigatory actions to preserve the reefs. These next scenes sharply pivot from negative emotions to optimism and excitement. In a scene

that presents a close up of Dr. Charlie Vernon, the aged mentor says with a smile, “Maybe [Rago] will say, ‘Charlie, you’re just a gloomy old man and, uh, we can fix these things’ (Orlowski, 2017). By Vernon placing his faith in Rago, the documentary leverages the identification that it has worked to build with that character; Vernon’s faith in Rago is therefore placed in the audience as well. Further, Rago’s uneasiness at facing the climate change is assuaged by his mentorship with Vernon, in turn softening the audience’s fears. Rago and Vernon are then shown diving together in a healthy and lush section of the Great Barrier Reef that escaped the bleaching. This scene displays a scene of healthy corals, seemingly asserting the potentiality of life if it is left to thrive.

Following the diving scene of Rago and Vernon, *Chasing Coral* presents Richard Vevers sitting with a black backdrop and accompanied by uplifting music. Vevers states, “It’s not too late for coral reefs, indeed, for many other ecosystems that are facing challenges from climate change. It’s still possible to reduce the rate at which the climate is changing, and that’s within our power today” (Orlowski, 2017). Vevers’ acknowledges that the worst of the climate change can be mitigated, that we do not have to face catastrophic shifts in our planet. Vevers then states, “This is inevitable, this great transformation, and that’s what makes me so optimistic, is—all we gotta do is give it a bit of a shove.” With these statements, Vevers argues that change is indeed possible and worth the effort. Such an argument positions the audience as efficacious through the possibility of a “great transformation.” To support Vevers’ statements, a list of countries and US cities that have committed to clean power scroll across the screen, showing the audience the scope of the international effort to mitigate climate change. The logic behind this text is that humanity can effectively mitigate this planetary threat through collective action on a global scale. O’Neill and Nicholson-Cole (2009) suggest that the component of efficacy given in fear appeals needs to be on a comparable scale for it to be effective. By speaking in terms of change

on a vast scale, the film is more effective in situating the audience as efficacious.

After the list of countries, text appears that reads “To learn what you can do visit chasingcoral.com” (Orlowski, 2017). This call to action is concrete, dissimilar to Muir’s indirect call to action where he relied on the natural sublime object’s exaltation to motivate audiences (Oravec, 1981). This direct invitation offers a clear avenue to act through visiting the *Chasing Coral* website, which presents a link on its main webpage entitled “TAKE ACTION” (chasingcoral.com, 2019). Within that webpage are a variety of links for ways to act, such as “Host a Screening,” which offers a Screening Field Guide to aid in registering and organizing a screening; “Engage Students,” which gives a curriculum and other resources to teach sixth to twelfth grade students about the issue of coral bleaching and climate change; “Wake up the World,” which offers a Social Media Toolkit that offers advice on how to reach out to others through social media and also various resources to aid in that endeavor; “Pledge to Vote,” where there is a page to sign the “Unstoppable Voter Pledge” that allows the Environmental Voter Project to email a reminder to vote; “Commit to action,” which links to a downloadable PDF entitled “Quick start guide: Your action primer” that details various actionables such as voting and joining environmental organizations, such as 350.org; “Donate,” which is a link to a website where one can directly donate to *Chasing Coral* through the Wild Foundation, an environmental organization. Thus, *Chasing Coral* directly engages audiences with political action.

Chasing Coral ends by reaffirming the experience of exaltation from the natural sublime object, supporting its direct call to action through the exaltation of coral reefs. Muir ended his sublime rhetoric through emphasizing the exaltation from the natural sublime object to motivate political action as well, however indirectly (Oravec, 1981). *Chasing Coral* now shifts its emphasis from efficacy to the exaltation of the coral reefs to inspire audiences further to take action. To affirm the exaltation of the reefs, the film depicts the wonder of the coral not through

their abundance of biodiversity, but their iridescent, alien beauty. Throughout the feature length, the film displays similar images but does not dwell on them. These images are close-up recordings of the coral that are time-lapsed so that the animal's undulations visible. *Chasing Coral* uses photography that makes the close-up coral iridescent with colors, highlighting the animal's beauty. These images are not supported with narration, but a song named Tell Me How Long by American actress Kirsten Bell (2017, track 14). An excerpt of the song's lyrics are as follows:

I been trying, I been trying
To tell you what's inside my soul
I've been dying, I've been dying
But the ocean changes slow
I scream in color
Tell me can you hear me through the waves
If we keep on waiting
Do we lose the things that we can save
If we hold each other
We don't have to let this slip away
Tell me how long, tell me how long
Do we see the pieces that'll break
Tell me how long, tell me how long
Till we wake up
Oh, I know we're gonna wake up (Orlowski, 2017)

Following this imagery and narration, the film states another call to action, "This film is dedicated to all the young people who can and will make a difference" (Orlowski, 2017).

Chasing Coral then ends and does so on an excited note, not merely of hope or optimism. And with that, the documentary overcomes the constraints of climate change and provide audiences a pathway for effective political action.

Chapter 4: Conclusion

Sublime rhetoric is a productive avenue for engaging audiences with climate change. The primary contribution my thesis makes to the study of environmental rhetoric is its analysis of the strengths and limitations of adapting the pattern of sublime rhetoric to account for the immensity of climate change and the constraints surrounding climate action. The following research questions guide this research:

- How do rhetors invoke the sublime to shape perceptions of climate change?
- To what extent do different types of sublime rhetoric productively overcome the communicative constraints of abstract representation and overwhelming threat brought forth by the immensity of climate change?
- How does conceptualizing climate change as a sublime shape the available rhetorical strategies for positioning and persuading audiences to be effective agents of change?

These research questions are designed to address the lack of inquiry into how sublime rhetoric is used to engage audiences with climate change. In this conclusion, I first summarize the findings from my analyses; second, I clarify the threat-based sublime response and films' use of that response; third, I detail how the two documentaries manage the constraints of climate change's abstract representation and overwhelming threat; fourth, I expound on the films engage audiences with climate change through their sublime rhetoric patterns; fifth, I elucidate on the implications of my findings as it pertains to theorists and practitioners; finally, I conclude by reflecting on the limitations of my study.

Summary of Analyses

Chasing Ice responds to the climate skepticism that dominated the discourse surrounding climate change in the 2000s. The documentary features a narrative of James Balog and his efforts to photograph the retreating and calving of glaciers across the world. It uses the awe of glaciers

and the tragedy of their erosion to demonstrate the reality of climate change to a skeptical audience. By modifying the sublime rhetoric pattern, *Chasing Ice* offers visual representation of a consequence of climate change and emphasizes the resulting fear to heighten the salience of the issue. I find in my analysis that *Chasing Ice* is successful in overcoming the constraint of climate change's abstract representation, but that its construction of the overwhelming threat of climate change and lack of strong efficacy messages contribute to climate change inaction (O'Neill & Nicholson-Cole, 2009).

Chasing Coral responds to the lack of political action to address climate change. The documentary features a narrative of Richard Vevers and Zackery Rago as they attempt to record the coral bleaching event sweeping the world in 2016. *Chasing Coral* uses the awe of coral reefs and their demise to provide an exigency to climate change that requires an appropriate political response. I find in my analysis that *Chasing Coral* more effective than *Chasing Ice* in overcoming both the abstract representation and overwhelming threat of climate change through its modification to the pattern of sublime rhetoric. Ultimately, *Chasing Coral's* sublime rhetoric is more conducive for motivating action in audiences.

The Sublime and the Threat of Climate Change

My first research question is: how do rhetors invoke the sublime to shape perceptions of climate change? *Chasing Ice* and *Chasing Coral* both use the awe of climate change in their rhetoric and introduce novel modifications to Oravec's (1981) pattern of sublime rhetoric to adapt to the significant constraints of climate change, that of its diffuse representation and overwhelming threat. The sublime response to vast threats like climate change, is not sufficiently explained by Oravec's (1981) theorization of the sublime response to natural objects. Climate change is awe-inspiring for its vast scope, its potentially calamitous power, and its indeterminate obscurity (Burke, 1823). Additionally, climate change represents an anti-natural sublime since

the films position it as inimical to the natural sublime objects of ice and reefs and their biodiversity. For these reasons, the sublimity of climate change has more in common with the Burkean (1823) sublime than Oravec's (1981) natural sublime, the former of which is driven by dread and the latter by exaltation.

Although both films do begin by inspiring awe about natural sublime objects—glaciers and coral reefs—they go on to evoke a sublime threat to those objects that reflects this difference between the Burkean (1823) sublime and Oravec's (1981) natural sublime. The first phase of sublime rhetoric consists of a natural sublime under threat by an anti-natural sublime, which subverts the sublime response of apprehension, awe, and exaltation. The difference lies in the second stage of the sublime response, where instead of “feeling of comparative insignificance in the face of an overwhelming nature,” one feels comparatively insignificant in the face of an overwhelming threat to that nature. Both *Chasing Ice* and *Chasing Coral* reflect the latter; they construct climate change as a sublime threat to natural sublime objects, heightening both the terror and personal insignificance that characterizes the Burkean sublime. In turn, both films evoke experiences of dread, which is characterized by feelings of powerlessness and uncertainty (Gordon et al., 2016).

Chasing Ice employs this mode of the sublime throughout its narrative to drive the saliency of climate change and overcome the audience's climate skepticism. Its anti-natural sublime response is as follows: the apprehension of vastness in ice, such as glaciers, icebergs, and icefields; a sense of comparative insignificance to the massive calving and melting of ice; and a feeling of dread not only in relation the power of climate change to ultimately reduce such monolithic structures to water, but also in relation to the potential for further ruin from climate change.

Chasing Coral employs the sublime similarly, but does so to motivate political action. Its

anti-natural sublime response is as follows: the apprehension of vast abundance of biodiversity harbored by reefs and the enormity of the Great Barrier Reef ; a sense of comparative insignificance to the scale of the coral reef bleaching and the massive loss of ocean biota, a feeling of dread at not only the power of climate change to decimate a thriving ecosystems, but also to the potential for further ruin from climate change.

The anti-natural sublime response in these two films points toward an emergent version of the sublime specific to climate change. *Chasing Ice* and *Chasing Coral* equally use this response in their sublime rhetoric to construct the exigence of climate change and the desire to preserve their chosen natural sublime object. This sublime response to an anti-natural sublime consists of three elements: the direct apprehension of the natural sublime object; a sense of overwhelming insignificance relative to a vast threat to the natural sublime object; and a resulting, disempowering experience of dread. This mode of the sublime response arises when a similarly vast object—what Morton (2013) calls a hyperobject—threatens a natural sublime object.

This mode of the anti-natural sublime, which I will refer to as the climate change sublime, helps us understand a significant way of communicating about climate change and some of the central rhetorical constraints involved in climate change communication. In particular, the feelings of dread evoked through the climate sublime must be managed rhetorically to avoid maladaptive audience responses and instead lead them toward action. My analysis shows how these two films have different ways of managing that dread. The principal difference is whether dread is emphasized, such as in the case of *Chasing Ice*, or obviated, as in the case of *Chasing Coral*. I expound upon this significance below.

The Sublime and the Constraints of Climate Change Communication

My second research question is: to what extent do different types of sublime rhetoric

productively overcome the communicative constraints of abstract representation and overwhelming threat brought forth by the immensity of climate change? The immensity of climate change is problematic since the depictions of its presence can potentially overwhelm audiences, but they are also necessary to show audiences the importance of climate change and its current and potential impacts. This “immensity imagery,” include scenes of dried-up riverbeds with dead fish, graphs of temperature rise, stormy seas crashing against a quay, breaking ice sheets, and industrial smokestacks (O'Neill & Nicholson-Cole, 2009). These images have been shown to increase the importance of climate change to audiences (O'Neill & Nicholson-Cole, 2009), but they can also "distance or disengage individuals, rendering them feeling helpless, overwhelmed and not empowered to act" (O'Neill, Boykoff, Niemeyer, & Day, 2013, p. 414). In other words, immensity imagery may make the issue salient to audiences by providing concrete representation, but it also runs the risk of reducing their sense of efficacy by making the threat seem overwhelming.

Images that do empower audiences clearly display what people can do to enact adaptive and political behaviors. “Efficacy imagery” shows people actively mitigating and adapting to climate change by, for example, driving electric vehicles, fitting homes with solar panels, and attending climate protests (O'Neill, Boykoff, Niemeyer, & Day, 2013). Efficacy imagery does not, however, increase the sense of importance that audiences have with climate change (O'Neill & Nicholson-Cole, 2009). Research has found little, if any, imagery that effectively emphasizes both the saliency and efficacy of audiences (O'Neill, Boykoff, Niemeyer, & Day, 2013). The tension is that imagery either depicts the immensity of climate change to highlight the saliency of the issue to the detriment of audience efficacy or depicts people acting efficaciously to empower at the expense of audience saliency. The constraint behind this tension is the abstract representation and overwhelming threat of climate change.

Chasing Ice uses sublime imagery of melting and calving glaciers to provide concrete representation to climate change. Consequently, the film achieves its goal of imparting the saliency of climate change to audiences, but at the expense of disempowering them through its overwhelming threat. A neo-Aristotelian reading would conclude that the film was successful in its intended purpose. Such an interpretation, though, does not account for *Chasing Ice*'s material impact—it offered little to help overcome inaction surrounding the issue. Although *Chasing Ice* was a direct rebuttal to climate skepticism and is a product of that context, that brief moment in history is not representative of the long path towards mitigating climate change, which may last hundreds of years. Ultimately the film offers little to audiences by way of helping them engage in action to mitigate climate change.

Chasing Coral is a more productive response to the constraints inherent to climate change communication. *Chasing Coral* overcomes the constraint of abstraction through “perspective by incongruity” (Burke, 1935, p. 115), providing representation to climate change through the juxtaposition of healthy and bleached coral, which materializes climate change through the depiction of its effects. In addition, the narrative arc of the documentary overcomes the constraint of climate change's overwhelming threat by leading the audience out of their fear and dread by empowering them to become efficacious political actors. By overcoming these constraints *Chasing Coral* offers a more productive sublime rhetoric pattern than its predecessor and contributes to not only creating awareness around climate change, but also action.

Engaging Audiences with Climate Change

My third research question is: how does conceptualizing climate change as a sublime shape the available rhetorical strategies for positioning and persuading audiences to be effective agents of change? *Chasing Ice* modifies the pattern of sublime rhetoric to overcome the abstract nature of climate change and provide evidence of its reality. However, the film does not

overcome the overwhelming threat of climate change. Instead, *Chasing Ice* uses that overwhelming threat to assert the saliency of the evidence it provides. Such a rhetorical strategy positions audiences less as effective agents and more as passively acquiescent to climate change through their disempowerment. However, the allusion to the threat of climate change through ice chunks in the film's beginning and ending attempt to position audiences as agents of change through beauty. By positioning the audience in relation to the sublime through beauty, *Chasing Ice* seeks to create a scalable entry point where they can access efficacy. While research suggests that climate change imagery that directly demonstrates efficacy is necessary to empower audiences (O'Neill, Boykoff, Niemeyer, & Day, 2013), perhaps the imagery of beauty (accompanied by music with a similar aesthetic) creates a space for reflection where, as with the toxic sublime, one can reflect on their consumptive habits that perpetuate the issue (Peeples, 2011). The attempt to engage audiences through beauty is a novel persuasive strategy in the context of sublime rhetoric, but ultimately the film does little to position or guide audiences to make change.

Chasing Coral also modifies the pattern of sublime rhetoric to position audiences as effective agents of change. Its purpose of motivating political action requires the film to account for the diffuse representation of climate change as well as its overwhelming threat. *Chasing Coral* engages audiences with climate change through its narrative that follows Vevers and Rago as they attempt to document the bleaching of coral reefs. Specifically, the identification with the main characters and their emotional responses across *Chasing Coral's* narrative arc leads the audience out of their fear and positions them as responsible. Oravec (1981) does not argue that Muir used the identification with the adventuring persona to lead audiences out of their fear, though that may have been implicit in her argument. But *Chasing Coral*, responding to a threat on a macro scale, takes extra steps to lead audiences out of their fear and position them as change

agents.

Specifically, *Chasing Coral* positions the audience to be effective agents of change through its efficacy imagery, direct call to action, and affirmation of the coral's transcendence. Near the film's end, the narrative sharply turns to the optimism surrounding climate action. The film asserts that change is possible and within reach due to the amount of work being done already, to which the audience may join. After these scenes, the film offers a direct call to action where the audience may go to the *Chasing Coral* website that is replete with specific action items. This contrasts with Muir's sublime rhetoric, which neither offered written descriptions of people taking action to preserve Yosemite, nor made a direct call to action (Oravec, 1981). Instead, he simply evoked the exaltation of Yosemite to implicitly affirm action to preserve its wonder. *Chasing Coral* does exalt its natural sublime object during the ending credits and supports that with another direct call to action. The vivid imagery of corals offers transcendence to the audience and the ending song by Kirsten Bell directly calls them to take steps to preserve the coral reefs. Such persuasion positions audiences as effective agents of change not only by "confirming...the reality and worth of their vicarious experience" (Oravec, 1981, p. 255) but also through emphasizing the immediate need to preserving the reefs.

The difference between *Chasing Ice's* and *Chasing Coral's* sublime rhetoric patterns is that the former is addressing the diffuse representation of climate change to provide evidence of climate change at the expense of obviating its overwhelming threat, while the latter is addressing that diffuse representation and also its overwhelming threat to motivate political action. This difference in purposes leads *Chasing Ice* to emphasize the threat of climate change with its sublime rhetoric. Conversely, *Chasing Coral* crafts its narrative around leading audiences out of their fear, then sharply pivoting to situating the audience as efficacious, and lastly directly calls for political action.

Implications for Environmental Communication Scholars and Advocates

Climate change as a sublime. Detailing the updated threat-based sublime response and modified sublime rhetoric pattern lead to a definition of climate change as a sublime. Conceptualizing climate change as a sublime may be productive as the theory of the sublime is grounded in terror (Burke, 1823), a (un)natural sublime object (Oravec, 1996; Nye, 1994), and the mobilization of political action (Oravec, 1981). Indeed, conceptualizing climate change as a sublime reveals a tension, as sublime rhetoric is an “aesthetic appreciation of nature” as well as the understanding of “its impending destruction” (Oravec, 1996, p. 72), both of which climate change comprises. Climate change is nature, despite how unnatural humans have caused it to become, and it carries qualities for aesthetic appreciation or revulsion in the environments it shapes, whether positive or negative. Additionally, climate change represents not only the destruction of natural geophysical processes but also represents the potential for those (un)natural processes to enact further destruction. This tension leads to the conceptualization of climate change as a sublime, which I define as *the tensions that arise from recognizing the planetary threat of climate change and the need to take adaptive and political actions to address its immensity, while simultaneously experiencing the comparative insignificance to the enormous threat, which evokes powerlessness, uncertainty, and dread*. Climate change is awful (awe-full) because of the immensity of its threat to humanity.

Implications for environmental communication scholars. *Chasing Ice's* and *Chasing Coral's* usage of the threat-based awe of climate change and their modifications to the sublime rhetoric pattern demonstrates that sublime rhetoric is adaptable in overcoming a variety of constraints. Significantly, sublime rhetoric is effective in overcoming constraints from vast crises that dwarf the people perceiving it. Environmental communication scholars must give more attention to different invocations of sublime rhetoric to explore its possibilities in productively

communicating the various exigencies of the Anthropocene. This attention is warranted as the environmental crises impacting our planet are increasingly on a vast scale and, as a result, sublime rhetoric may become increasingly predominate in environmental discourse.

The climate change sublime functions similarly to the tensions that Peebles (2011) identifies in the toxic sublime, particularly in the way that it creates a space for reflection into one's consumptive habits. The toxic sublime are "*the tensions that arise from recognizing the toxicity of a place, object or situation, while simultaneously appreciating its mystery, magnificence and ability to inspire awe*" [emphasis in original] (Peebles, 2011, p. 375). Similar to the toxic sublime, the climate change sublime "raises questions of complicity, producing an internal reckoning (at least initially) as one measures one's life choices against the sites of destruction" (Peebles, 2011, p. 388). This same internal reckoning is what both *Chasing Ice* and *Chasing Coral* use to situate the audience as responsible through their "passive acquiescence" (Oravec, 1981, p. 255), as the carbon-industrial complex that fuels our modern world is so intrinsically tied to a western individual's lifestyle means that we are all responsible for climate change, to a degree.

My analysis of the climate change sublime also illustrates an important connection between the sublime response and another central concept in environmental rhetoric, the locus of the irreparable (Cox, 1982). The elements of the irreparable are central to the use of sublime rhetoric for purposes of advocacy, as the natural sublime object is constituted as unique, precarious, and in need of timely action in order to forestall loss, thus warranting urgent decisions or actions (Cox, 1982). The climate change sublime acts as the threat to the natural sublime object, evoking the irreparable not only for the specific object in question, but also for the entirety of the planet due to the macro scale of climate change's threat. The internal reckoning of complicity brought forth by the climate change sublime not only produces self-

reflexivity on how one has contributed to the threat to the natural sublime object, but also to the natural sublime object of the planet itself. Indeed, when developing the threatening exigence of the climate change sublime, both films posit a world ravaged by unchecked climate change. With the climate change sublime, the irreparable is not only evoked in regard to the deprivation of the particular natural sublime object, but also to the irreparable loss of a livable planet and the many natural sublime objects that the Earth houses. The potentiality of the climate change sublime is the death of natural wonder, a warrant that contributes to its overall persuasiveness.

My analysis also complicates the conclusions of O'Neill et al. (2013) that few images of climate change imagery can promote both salience and efficacy. The climate change sublime in these two films addresses this issue through a pattern that first drives the importance of climate change through juxtaposing the natural sublime object with a threat of the climate change sublime, and then leads the audience out of that fear through discourse designed to empower audiences with efficacy. On one hand, *Chasing Ice* supports the research by O'Neill et al. (2013), as its sublime rhetoric is ultimately counterproductive to situating audiences as efficacious. On the other hand, *Chasing Coral* complicates this research because its narrative of images, through the sublime rhetoric pattern, imparts both the saliency of climate change and provides an effective efficacy message to audiences. However, the research by O'Neill et al. (2013) did not account for a narrative of images as it instead focused on static imagery, such as still photographs. So, while my findings of *Chasing Coral* complicate O'Neill et al.'s (2013) results, it also furthers their research by suggesting that a succession of images, structured in a sublime rhetoric pattern, can both impart the saliency of climate change while promoting the audience's efficacy.

These two films are just two instances of what I am calling the climate change sublime. Environmental communication scholars should further research distinct evocations of threat-

based awe and unique modifications to the sublime rhetoric pattern to address different exigencies, environmental or otherwise. This research would advance environmental advocacy in the Anthropocene and address the engagement of audiences with planet-spanning issues. By studying different evocations of threat-based awe from anti-natural sublimines, environmental communication scholars could offer insight into anti-natural sublimines and their particular instances of awe to shed light on the societal meanings attached to these objects. By studying different modifications to the sublime rhetoric pattern, environmental communication scholars could determine the productivity of different methods to engage audiences with elements of the Anthropocene. Such research would prove useful as it is becoming increasingly necessary to address climate change and oceanic plastic waste, for example. Environmental communication scholars could also discover the effectivity of methods to lead audiences out of the fear from the anti-natural sublime. I have identified one method, that of identification, in my research. There may be other methods that deserve inquiry and should be brought to light to aid environmental communication.

Implications for environmental communication practitioners. For climate change advocates, my analysis suggests that these communicators must attend to the need for efficacy messages and identification with active political agents as a necessary component of any “fear appeal.” A fear appeal has three components: first, the rhetor offers a threat that is perceived by the audience; second, the audience experiences a resulting sense of fear; third, the rhetor provides a component of efficacy to which the audience then acts upon (Witte, 1992). Sublime rhetoric, regardless of its intended purpose, mirrors the fear appeal in its pattern: first, a threat to the natural sublime object is introduced; second, the audience experiences dread to which they must be led out from; third, audiences are presented with efficacy either directly or indirectly.

Environmental communicators need to recognize that the fear appeal in sublime rhetoric

is volatile given the immense subject matter; the natural and anti-natural sublime objects both dwarf the people perceiving the issue. Accordingly, the fear appeal in the pattern of sublime rhetoric should be delivered with compassion, as the anti-natural sublime response may be considerably distressing because the scale of that fear is comparable to the vast threat which induced it. The threat of the fear appeal should also be delivered carefully so as not to overwhelm the audience, as exemplified by *Chasing Coral*. Otherwise, as demonstrated by *Chasing Ice*, the audience may be paralyzed by the enormity of the issue and lack the capacity to access efficacy, whether such a message is provided or not. The component of efficacy must be delivered with care as well, as audiences may have a greater need to be led out of their fear before they can accept and enact that efficacy component. Perhaps it is necessary to obviate (DeLuca & Demo, 2000) the full brunt of the exalting and threat-based sublimes through providing the audience distance via identification with an appropriate character or some other means.

Limitations

I limited my research by focusing on two documentaries both directed by Jeff Orlowski. Orlowski's modifications to the pattern of sublime rhetoric may not be indicative of modern sublime rhetoric as a whole. Further research should explore sublime rhetoric from other contemporary sources to see how their rhetoric diverges from Oravec's (1981), if at all. Environmental scholars must delve into sublime rhetoric that uses immense environmental crises as the threat to the natural sublime object, such as the ubiquity of plastic pollution harming the health of the oceans or the extensive planet-wide extinction of species from human development and that negative impact on Earth's global ecosystem.

I also limited my research by focusing on the documentary as my sole source of media. Sublime rhetoric may function differently depending on the media from which it is delivered;

this difference may be in how the awe of the natural sublime and the anti-natural sublime is evoked or the sequence of phases in the sublime rhetoric pattern is presented. Oravec's (1981) sublime response proceeds in three stages: apprehension of natural sublime, awe from comparative insignificance to that object, and exaltation. My conception of the anti-natural sublime proceeds in three stages as well: apprehension of natural sublime, awe from relative insignificance to the threat to that natural object, and dread. Other mediums for delivery may invert or reorder the sublime response to achieve novel rhetorical purposes. By analyzing two documentaries, I limited the scope of my research to the sublime responses made available by the documentary medium. Specifically, documentaries provide both images and narration to evoke the sublime response. Other mediums, such as written articles or a sequence of photographs presented at a museum, may evoke the sublime response in novel ways. Different medium's evocations of the sublime response deserve inquiry from environmental communication scholars.

The sublime rhetoric pattern, which Oravec (1981) details, is necessarily linear as it follows a logical argumentative sequence. *Chasing Coral* and *Chasing Ice*'s sublime rhetoric broadly follow that logic throughout their narratives. However, some phases of the sublime rhetoric pattern resurfaced in the documentaries as the narrative progressed, perhaps problematizing my analyses; or, perhaps, problematizing Oravec's original pattern. Sublime rhetoric may function differently when delivered through other media sources, such as an interactive website, a scientific report, or a publicly delivered speech. For example, sublime rhetoric in other mediums may reorder the pattern of sublime rhetoric in a novel way or create an entirely new pattern based on its available means for persuasion. These limitations provide productive avenues for environmental communication scholars to pursue as the discourse around climate change continues to evolve.

The sublime rhetoric of *Chasing Ice* and *Chasing Coral* both use the threat of climate

change to advance their persuasive purposes and modify Oravec's (1981) sublime to engage audiences with climate change. This thesis advances the knowledge of climate change communication and points to the significant rhetorical constraints implicit within that discourse. It is imperative that scholars grapple with the rhetoric surrounding climate change and its immensity to ensure the livability of our planet—one that evokes exaltation rather than dread.

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