UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

CLIMATE THREATS FROM KYOTO TO PARIS: FRAMING AND IMAGES IN SECURITIZING CLIMATE CHANGE DISCOURSES

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF ARTS IN INTERNATIONAL STUDIES

By

COLLIN DOUGLAS
Norman, Oklahoma
2017

CLIMATE THREATS FROM KYOTO TO PARIS: FRAMING AND IMAGES IN

SECURITIZING CLIMATE CHANGE DISCOURSES

A THESIS APPROVED FOR THE
COLLEGE OF INTERNATIONAL STUDIES

BY

_____
Dr. Mark Raymond, Chair

_____
Dr. Eric Heinze

_____
Dr. Bo Kong

“To see the Earth as we now see it, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the Earth together, brothers on that bright loveliness in the unending night -- brothers who see now they are truly brothers.”

- Archibald Macleish

Acknowledgements

I would like to thank my committee members, Dr. Bo Kong, Dr. Eric Heinze, and Dr. Mark Raymond, for their support and guidance throughout this process. I am immensely grateful to Dr. Mark Raymond for his patience and advice throughout this process. His passion for his work and commitment to being an excellent professor have greatly benefitted this project and my studies in general.

I am grateful to the staff of the College of International Studies for their dedication to students and their constant support. I also want to thank my colleagues in the MAIS program. The atmosphere of unity and a shared desire to help each other achieve has made this endeavor easier. I especially want to thank my colleagues Nicole Smith and Stefanie Neumeier for their friendship and support. I also want to thank my family for getting me to where I am today. I could not have accomplished any of this if my parents had not supported my academic career from the beginning.

I could not have completed or even begun my studies without the support and love of my wife Jessica. Without her, this project would not be what it is. I am grateful for her willingness to let me think out loud.

Table of Contents

List of Tables:

List of Figures:

Abstract

Climate change is an issue that presents many threats that are dispersed according to geography and vulnerability. Climate change exists within separate discourses and is framed uniquely in each discourse. The question that I want to answer with this study is why attempted securitizations of climate change have not translated into a widespread understanding and acceptance of climate threats. By understanding how climate change is constructed as a threat to the public, we can better understand how it is perceived. Knowing how climate change is perceived can explain the potential for legitimacy of actors and actions. This thesis uses a content analysis of elite discourses to determine the prevalence of different threats within climate change communication. This study finds that most climate communication makes use of threats that are abstract and distant, diminishing the desired effect. Those communicating climate change threats make use of visuals to take advantage of the affectual power of images. Previous securitizations of climate change have made us of referent objects that are too abstract for the audience to be successful. This study argues that to communicate climate change threats in a way to increase the salience of the threat, messages must be localized and personalized and take advantage of the immediate affectual properties of images.

Introduction

The implications of anthropogenic climate change for humanity and its institutions, the biosphere, and the future are vast and growing along with humanity's understanding of climate change. Since the fact that Earth's climate is changing became widely known, the threats and changes that different actors have emphasized have changed along with public discourses. The issue has changed from being a danger to the environment and development to, as some have argued, a danger to international security and a threat to the existence of humanity.[1]

When something is framed as a threat to security, survival, or existence, it changes the discourse. This change can legitimize new actors and/or actions. This change in the discourse can also paint other actors or actions as inadequate in dealing with an urgent and immense threat. As the threats of climate change have changed, our perception of the process of global environmental change has shifted. Some have argued that the implications of global climate change are so drastic that it justifies a new geologic epoch, the Anthropocene.[2] No matter how dramatic climate change discourses become, they must exist alongside other discourses that compete for the public's attention. These competing discourses may be more tangible or 'scarier' like

[1] The 1992 Rio Earth Summit's Declaration on Environment and Development used the language of sustainable development to describe climate change. Climate change has been described as a threat to national and international security by many within established security circles. Two of the most prominent examples are the CAN Corporations's 2007 report National Security and the Threat of Climate Change, and the Department of Defense's 2010 Quadrennial Defense Review. See Rio Declaration on Environment and Development, adopted June 14, 1992, U.N. Doc. AICONF.1515/Rev. 1 (1992).; *National Security and the Threats of Climate Change,* Alexandria, VA: CNA, 2007.; U.S. Department of Defense, Quadrennial Defense Review Report, February 2010.

[2] Paul J. Crutzen, "The "anthropocene"," In *Earth system science in the Anthropocene*, (Springer Berlin Heidelberg, 2006) 13-18.

international terrorism, or may have more immediate personal connections like economic stagnation or collapse.

The theory of securitization has been widely applied to western democratic contexts, and has been sparsely applied elsewhere. The utility of the theory is not entirely understood outside of these contexts.[3] These same countries that have most often been the subjects of securitization scholars are the same countries that have the weakest personal connection to the harms of anthropogenic climate change.[4] These industrialized 'western' democracies offer an opportunity to apply securitization theory to climate discourses to attempt to explain the lack of binding international climate action.

With this study, I want to find out why climate communication is not effective in communicating the threats of climate change in a way that leads to widespread knowledge and acceptance of climate threats. To better understand how climate change is communicated, I want to understand how the threats associated with climate change are articulated, and what objects those threats are targeting. By understanding how climate change is constructed as a threat to the public, we can better understand how it is perceived. Knowing how climate change is perceived can explain the potential for legitimacy of actors and actions. If the public perceives climate change as distant and untouchable, then drastic counter-measures will have a harder time gaining legitimacy.

[3] Claire Wilkinson, "The Copenhagen School on tour in Kyrgyzstan: Is securitization theory useable outside Europe?," *Security Dialogue* 38.1 (2007): 5-25.
[4] Bruce Stokes, Richard Wike, and Jill Carle, "Global Concern About Climate Change, Broad Support for Limiting Emissions." Pew Research Center. Last modified November 5, 2015. http://www.pewglobal.org/2015/11/05/global-concern-about-climate-change-broad-support-for-limiting-emissions/.

The way the public understands an issue defines the responses to that issue they would deem legitimate. Further, this study seeks to understand to what extent these discourses of climate threats have been securitized successfully, and how actors might better communicate the threats of climate change in a way to inspire action. In other words, I want to know what it takes to make the citizens and leaders of the Global North to not see climate change as an issue that only exists in Africa or South America, but to see the issue as one that will have and is having impacts all over the globe, and respond urgently. I want to know what it would take for the urgency of our present situation to undo entrenched political beliefs that prevent productive and needed mitigation and adaptation measures.

Specifically, in this study I examine how climate change threats are framed within editorials and opinion columns from the *New York Times*, the *Washington Post*, and the *Wall Street Journal* from the period 2007 to 2015. In categorizing the threatened objects of climate change, I break them down to the environment and biodiversity, national and international security, the economy, health, our way of life and the future, humanity and human civilization, and other threats. To apply the language of securitization, these data make it possible to determine what the most common referent object is within climate change coverage. I also analyze political party platforms from several liberal democracies to determine how politicians construct climate change threats. The timeframe for political party platforms covers the years 1997 to 2015. This period represents the time when climate change became a coherent international issue and a topic of treaties. The Kyoto Protocol of 1997 was the first binding international climate change treaty and marked the beginning of widespread

international climate cooperation. The 2015 Paris agreement marks the latest high-level international climate agreement. These events are significant when studying discourses as they shift and influence the language used in discourses. By using these two events as boundaries for this study of climate change discourse, I am able to get a snapshot of contemporary discourse on climate change at the international level.

Additionally, much communication of climate change happens through images and visual representations. The communication of threats through images works differently than through text. Visual threat communication is on one hand vaguer, but on the other can be much more emotionally stimulating. Through reviewing the literature, I aim to determine what images are most commonly associated with climate change communications.

The most commonly occurring threatened objects in climate communication within the chosen sources and timeframe were environmental. Editorials from major newspapers also frequently communicated threats with no clear threatened object. The images used to communicate climate threats are also for the most part environmental, but people make up the second most common category. From this, we can say that climate communication uses framing and imagery that are the least likely to communicate threats in a way that leads to action. Securitizations are successful when the issue being securitized can be shown to be more important than other issues, and given a special prioritized status over other issues.[5] For this to happen, the audience targeted by the securitization must feel that the outlined threat is an existential one to

[5] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder, CO: Lynne Rienner, 1998), 24.

the referent object, an object which they value. With the distant environmental representations used in much of climate communication, the intended audience does not feel that threat because their connection to the threatened object is not especially strong.

The public is constantly confronted with new threats that use words and images to try to soak up the public's attention. These threats compete against each other and often push each other out of the limelight. In every country included in the data in this study, the Islamic State is seen as a greater global threat than climate change.[6] Terrorism was one of the main issues of the 2016 US presidential election, and has been a prominent topic in European elections also. The ubiquity of terrorism in public discourses does not match the real-world capabilities and danger of the threat.[7] The prospects of global environmental change could have more drastic and longer lasting negative consequences than terrorism, but the issue is drowned out by grisly displays of terrorism in the media.

If climate activists better understand how threats are framed in the public through text and images, they can better understand what works and what does not. The nature of climate change itself makes it a difficult problem to communicate. While effects of climate change are global, they can also be intensely local. Some countries may even see a net benefit, within their own borders at least. There is no clear 'other' to

[6] Jill Carle, "Climate Change Seen As Top Global Threat." Pew Research Center. Last modified July 14, 2015. http://www.pewglobal.org/2015/07/14/climate-change-seen-as-top-global-threat/.
[7] John Mueller and Mark G. Stewart, "The Terrorism Delusion," *International Security* 37.1 (2012): 81-110.

rally against and the linkages between source and effect are abstract. All of these features work against concerted national and international action.

This thesis consists of three main chapters, but first I begin by outlining securitization theory and its development. The theory has been applied to climate change before, but to my knowledge not in relation to the Copenhagen School's concept of macrosecuritizations. Macrosecuritizations are those securitizations that operate on a universal or systemic level above states; the most commonly discussed successful macrosecuritization is the Cold War.[8] The first chapter analyzes data from print media and political party platforms to determine the most common referent objects when discussing climate change. Next, I review the literature on visual representations of climate change. This literature is interdisciplinary and offers insights into the difficulty of visual communication of threats. In the last chapter, I determine to what extent different climate security discourses have been securitized and end by offering guidance on better communicating the threats of climate change.

Climate change is the most immense and abstract threat humanity has ever faced. Much of the language and images used to communicate these threats reflects the immensity, and at times the abstractness, of the problem. To inspire action among individuals and states, the threats that climate change poses need to be communicated precisely. Polar bears may be an easy symbol for climate change, but starving polar bears are not guaranteed to capture the attention of farmers in Iowa or policymakers in Berlin. To do that, the communication of climate threats needs to hit home. Climate

[8] Barry Buzan and Ole Wæver, "Macrosecuritisation and security constellations: reconsidering scale in securitisation theory," *Review of international studies* 35.2 (2009): 253-276.

change competes with other threatening subjects within public discourses, and it often fails in maintaining attention. To maintain that attention and to drive action, climate threats and implications need to be tailored and precise.

Theoretical Background on Securitization

The concept of securitization was born out of developments in the field of security studies that occurred in the final years of the Cold War. After the end of the Cold War, states began to broaden their security agendas into new domains. Securitization was developed, in part, to explain these expanding agendas.[9] Securitization is defined as the process by which issues are framed as matters of security through an intersubjective dialogue between actor and audience. A securitization requires that a securitizing actor depict a threat as an existential risk to a referent object. This security framing, if accepted, legitimizes the use of measures that lay outside the normal bounds of behavior, or break the rules so to speak.[10] This process is an intersubjective one that happens between the securitizing actor and the audience of the securitizing move. Referent objects of securitization have traditionally been states, but the theory does not limit the possibilities.

Some activists attempt to securitize anthropogenic climate change by framing climate change as a threat to humankind or human civilization as we know it. By framing climate change as a threat on such a massive scale, these activists are attempting to create an urgent and extraordinary response. This thinking seems to go

[9] Jef Huysmans, "Revisiting Copenhagen: Or, on the creative development of a security studies agenda in Europe," *European Journal of International Relations* 4.4 (1998): 483.
[10] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 21-26.

against the literature on securitization which suggests it would be more actionable to frame climate change as a threat to the United Kingdom, or the United States, or more generally to the current political system. In the literature of the Copenhagen School, a securitization of this magnitude would be characterized as a macrosecuritization, or a securitization that works at the global level to order and control all securitizations below it. The development of the Copenhagen School's theory of securitization has expanded upon its original focus on dominant actors using speech as a method of securitization to consider the role of less-than dominant actors and visual securitizations.[11]

Securitization

Securitization is a theoretical development that came out of a turning point in security studies. The drawdown of the Cold War saw many academics looking to redefine a field which had until then been dominated by realist approaches, nuclear strategy, and Soviet studies.[12] Huysmans condenses this new approach into a question of how to move security studies past its narrow focus on relations between states without becoming so all-encompassing as to become useless.[13] Not all security studies scholars were in favor of this widening of the field. Stephen Walt cautioned against widening the focus from military issues in order to maintain security studies' "intellectual coherence."[14] The Copenhagen School has been a proponent of this

[11] Michael C. Williams, "Words, Images, Enemies: Securitization and International Politics," *International Studies Quarterly* 47.4 (2003): 511–531.
[12] Stephen Walt, "The Renaissance of Security Studies," *International Studies Quarterly* 35.2 (1991): 211-239.; Richard Ullman, "Redefining Security," *International Security* 8.1 (1983) 129-153; Jessica Tuchman Matthews, "Redefining Security," *Foreign Affairs 68.2* (1989) 162-177.
[13] Jef Huysman, "Revisiting Copenhagen: or, on the Creative Development of a Security Studies Agenda in Europe," *European Journal of International Relations* 4.4 (1998): 482.
[14] Stephen M. Walt, "The Rennaissance of Security Studies," *International Studies Quarterly* 35.2 (1991): 212-213.

widening, while also cautioning against an overreaction. The theory takes a European perspective, reflects European security experiences, and uses a specific, "European historical-cultural understanding of the nation."[15] This perspective has limited securitization's usefulness, as it is rarely applicable outside a Western democratic context. While this is a valid critique of the theory as a whole, securitization is being applied in this study to 'western' industrialized democracies only.

The theory of securitization has developed over time, but the basic structure has remained unchanged. The core of the theory is the intersubjective meaning of security, meaning that there are no objective security threats, only socially constructed threats. It is not that these security threats do not pose a legitimate threat, but that all security threats are seen as such due to the discourse surrounding them. Securitization theory holds that security threats are socially constructed through a securitizing move, usually a speech act by a dominant actor, typically a head of state. The securitizing actor presents a referent object, an object that is existentially threatened, to an audience and calls for extraordinary, 'rule-breaking' action to protect the referent object. Whether the audience deems the securitizing actor a legitimate voice on the matter and accepts the securitization is the measure by which a securitization is evaluated. This process exists on a sliding scale for issues that ranges from non-politicized, to politicized, to securitized.[16]

[15] Jef Huysmans, "Revisiting Copenhagen: or, on the Creative Development of a Security Studies Agenda in Europe," *European Journal of International Relations* 4.4 (1998): 484.
[16] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 25.

This narrow focus on speech acts and dominant political actors has been one of the most prominent criticisms of securitization, although subsequent securitization scholars have expanded these criteria to embrace visual or mixed securitization techniques, and non-heads of state as securitizing actors.[17] Critics argue that in a world in which, "communication is increasingly conveyed through electronic media, and in which televisual images play an increasingly significant role" securitization theory is limiting itself in focusing on speech acts only.[18] More recent studies have attempted to expand securitization's framework, by examining not only visual securitizations, but also securitizations by non-political actors, such as Vuori's work on the *Bulletin of Atomic Scientists'* Doomsday clock.[19]

Macrosecuritizations

Buzan and Waever define a macrosecuritization as a securitization, "on a larger scale than the mainstream collectivities at the middle level (states, nations) and seek to package together securitisations from that level into a 'higher' and larger order."[20] Macrosecuritizations function as a coordinating mechanism for lower level securitizations. They go on to describe macrosecuritizations as rarer than middle level securitizations, due to the constant need to connect them to smaller, more local securitizations. Middle level securitizations have been the traditional referent objects in securitizations because they are often what Buzan et al., call "limited collectivities"

[17] Michael C. Williams, "Words, Images, Enemies: Securitization and International Politics," *International Studies Quarterly* 47.4 (2003): 511–531.
[18] Ibid., 525.
[19] Juha A. Vuori, "A Timely Prophet? The Doomsday Clock as a Visualization of Securitization Moves with a Global Referent Object," *Security Dialogue* 41.3 (2010): 255-277.
[20] Buzan, Barry and Ole Wæver, "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory," *Review of International Studies* 35 (2009): 257.

which establish a 'we' identity. Therefore, if there is a 'we' identity, there must be a 'them'. This dynamic creates a rivalry which facilitates middle level securitizations.[21] System level securitizations are more difficult to implement because their salience is not as strong as smaller level securitizations. There is a certain distance between the audience and the referent object that makes it more difficult to draw upon the emotions of the audience. A systemic level securitization must be able to create a collective identity on a larger scale, but these identities are often too subtle to be useful in securitization.[22] The Copenhagen School also states that a macrosecuritization is not required to outrank other securitizations. There is a possibility that a macrosecuritization can merely bundle other securitizations together.[23] Buzan and Waever point to the Global War on Terror as a macrosecuritization that bundles other securitizations (drugs, crime, arms trafficking) without outranking them.[24]

The Copenhagen School has cited multiple attempts at failed macrosecuritizations and relatively few successful ones. Their most prevalent and concrete example of a successful macrosecuritization is the Cold War. Buzan et al., present the Cold War as a macrosecuritization of nuclear annihilation as a threat to all of humanity.[25] The Cold War has also been presented as a macrosecuritization on the level of a civilization struggle for survival.[26] The Cold War ordered and controlled

[21] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 37.
[22] Ibid.
[23] Buzan, Barry and Ole Wæver, "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory," *Review of International Studies* 35 (2009): 257.
[24] Ibid.
[25] Ibid., 36.
[26] Buzan, Barry and Ole Wæver, "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory," *Review of International Studies* 35 (2009): 256.

many lower level securitizations. In creating the concept of macrosecuritization, the Copenhagen School underscores the difficulty of achieving a system-level securitization. This difficulty is attributed to a lack of established security legitimacy of high-level referent objects.[27] The lack of an Us vs. Them rivalry also undercuts security legitimacy for macrosecuritizations. The more abstract referent objects of macrosecuritizations do not have the same level of concreteness and identity compared to middle-level securitizations.

Securitizations are also dependent on the context into which they are introduced. The Copenhagen School notes the importance of what they call, 'facilitating conditions' in the success of securitizations. They break down these conditions into internal/linguistic factors and external/contextual factors. The internal factors deal with the rules or grammar of security. The closer an actor adheres to the rules of security, the more likely the securitization. The external factors include the authority of the securitizing actor, which is not limited to official authority, and the features of the threat, "that are generally held to be threatening – be they tanks, hostile sentiments, or polluted waters."[28] These images draw upon specific societal memories to communicate their threats.

As long as there have been attempts to securitize climate change, there have been voices opposing these attempts. The main reason for this opposition has been, firstly whether climate change genuinely represents a security threat, and secondly whether applying the word security to climate change makes security so broad as to

[27] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 36.
[28] Ibid., 33.

become meaningless. Both of these concerns were expressed by Daniel Deudney in 1990, at the beginning of the climate securitization trend when he said, "If everything that causes a decline in human well-being is labelled a 'security' threat, the term loses any analytical usefulness, and becomes a loose synonym for 'bad'."[29] Deudney is echoing Walt's earlier remarks about security studies possibly losing its cohesion. Deudney was recognizing the beginning efforts of a broader securitization move to make environmental causes as urgent as national security through rhetoric. Deudney argues that responding to non-military issues with a military solution is the wrong way to address them, and slapping a national security label on these issues will make that happen. But nothing in securitization requires a military response to a securitized issue. Securitization's extraordinary measures are necessarily a security response. In other words, the security label does not require a traditional security response. Deudney's worries that securitizing the environment would lead to competition is dependent on creating a foreign 'other' to compete with, and responding to a newly securitized environment with a security-oriented policy. Neither of these things are unavoidable in securitizing the environment.

It is important to make clear the Copenhagen School's stance on the usefulness of securitization. Buzan and Waever have explicitly pointed out that securitization should be viewed as a negative concept. The process of securitization moves an issue from being political, or a matter for debate, to an issue that defies normal politics. Securitization scholars generally see the process of moving an issue out of the realm of

[29] Daniel Deudney, "The Case Against Linking Environmental Degradation and National Security," *Millennium Journal of International Studies* 19 (1990): 463-464.

political debate and into the realm of non-debate and extraordinary politics as an inherently negative and undemocratic process.[30]

Norm Entrepreneurship

Securitizations are a kind of norm entrepreneurship wherein the securitizing actor or norm entrepreneur promotes the change or creation of a norm. Securitizing actors are norm entrepreneurs trying to convince their audience of the appropriateness of their norm, and in order to be successful, that audience must accept the norm or securitization.[31] Norms are standards of behavior for actors with a certain identity. Securitizations are different only in that they are standards of belief, which in turn legitimize behaviors.

Securitizations gain legitimacy from organizational platforms in much the same way that norms do. Attaching a securitizing move or a norm to an organization with legitimacy increases the legitimacy of the securitization or norm by proximity. This relationship is similar to the Copenhagen School's facilitating conditions. Finnemore and Sikkink argue that creating and changing norms is a form of "strategic social construction" whereby actors build upon intersubjective knowledge to deliberately alter that common knowledge for a purpose.[32] Developments in scholarship on norms points to the possibility that macrosecuritizations might be more successful than the Copenhagen School predicts. Panke and Petersohn argue that the more precise a norm

[30] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 29.
[31] Martha Finnemore and Kathryn Sikkink, "International Norm Dynamics and Political Change," *International Organization* 52.4 (1998): 887-917.
[32] Martha Finnemore and Kathryn Sikkink, "International Norm Dynamics and Political Change," *International Organization* 52.4 (1998): 910.

is, the more likely it is to deteriorate rapidly. Broader norms allow for more 'wiggle room', making it more difficult to detect non-compliance.[33] A macrosecuritization that says climate change is a threat to humanity, and we should employ extraordinary means to counteract it, is broad. It is broad in its referent object, humanity, and broad in its outcome because it does not argue a single specific policy response. This macrosecuritization is also broad in its scope, as a human referent object makes the norm applicable worldwide.

Macrosecuritizations with Humankind as Referent Object

Buzan and Waever cite historical examples of successful macrosecuritizations, such as the Cold War and the Crusades. These macrosecuritizations were systemic level securitizations that held sway over the lower security structure. For a macrosecuritization to be successful, according to the literature, it must maintain, "permanent sensitivity to the fact that the local securitisations contained within it have the option to defect if contradictions seem to undermine their linkage to the higher level."[34] If climate activists are framing climate change as an existential threat to humanity itself, then securitization theory suggests that this is not likely to be successful. The salience and identity relevance of a macrosecuritization is difficult to materialize, and as the Copenhagen School suggests, issues of this magnitude are unlikely to spur action.

[33] Diana Panke and Ulrich Petersohn, "Why international norms disappear sometimes," *European Journal of International Relations* 18.4 (2012): 724-725.
[34] Barry Buzan and Ole Wæver, "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory," *Review of International Studies* 35 (2009): 258.

Chapter 1: Content Analysis of Scientific, Political, and Editorial Climate Texts

Some climate change activists have described the changes posed by anthropogenic climate change as an existential threat to humanity. Among the most well-known statements echoing this is President Obama's 2016 remark that "climate change is a potential existential threat to the entire world if we don't do something about it."[35] This chapter asks how often climate activists use this framing when discussing climate change within elite discourses. Available data from 2007 to 2015 do not support the hypothesis that the most common way of framing climate change as a threat was to the existence of humanity or human civilization. This macro-level securitization was among the least common ways of framing a climate change threat among the collected data. While there have been some prominent cases of individuals using this kind of framing, it is by no means the most common framing of climate change. Comparing data from all three chosen newspapers together shows that the most common referent object is the environment or biodiversity. However, I make the case that environmental referent objects, and threats with undefined referent objects, meet the criteria for a macrosecuritization. This makes macrosecuritizations extremely common, and the dominant framing, with these discourses. This chapter begins with a discussion of the methodology and difficulties in data collection, then moves to findings

[35] Keith Johnson, "Obama Says Climate Change is a Security Risk. Why are Republicans Laughing?," *Foreign Policy* March 21, 2016. http://foreignpolicy.com/2016/03/21/obama-says-climate-change-is-a-security-risk-why-are-republicans-laughing/.

from the three source types. Then I discuss the findings in a wider theoretical context. Finally, I explore areas of possible further research.

Measuring Climate Change Discourse

Using Ronald Krebs's study of the dominant narratives of the Cold War as a guide, I collected editorials, opinion pieces by editorial board members, and articles by opinion columnists (hereafter editorials) from the *New York Times*, the *Washington Post*, and the *Wall Street Journal* that mentioned climate change, global warming, or greenhouse gases from the period of 2007 to 2015.[36] This timeframe is delineated by the IPCC's 2007 fourth assessment report on one end, and the 2015 COP21 in Paris. IPCC reports and COP meetings are the most prominent high-level events that occur within international climate diplomacy, and these events shape coverage of climate change itself. These data include every editorial available from the three chosen publications, which is a targeted sampling to cover an ideological spectrum of newspapers with wide international recognition. Krebs's method is useful in identifying dominant narratives in public discourse. And as Krebs notes, dominant narratives define the borders of legitimate politics.[37] An acceptance of an idea within elite discourses translates to legitimacy in implementation. Instead of using Krebs's questionnaire, this study used simple category variables to code the way climate change was framed as a threat. These categories were based on the language used to describe what is being threatened by climate change within the editorial.

[36] Ronald R. Krebs, "How Dominant Narratives Rise and Fall: Military Conflict, Politics, and the Cold War Consensus," *International Organization* 69.4 (2015): 809–45.
[37] Ibid., 814.

Expanding on Krebs's framework, I included political party platforms from the major political parties in the United States, the United Kingdom, Germany, New Zealand, and Australia in every major national election year since 1997. Political actors are the traditional dominant actors in securitization theory and possess the most legitimacy. They were included to reflect this fact. The top three parties by the percentage of total votes were chosen to represent diversity of views within a country. The countries were chosen based on my own language abilities and the fact that the securitization framework is best suited to industrialized western democracies.

The Intergovernmental Panel on Climate Change's (IPCC) summary for policymakers from 2001, 2007, and 2014, which are included with each larger report, were also examined. These summary reports are much shorter than the entire report, between 20 and 40 pages, and are intended to distill the immense scientific information of the full report into a manageable summary for the general public and policy makers. The summary reports were examined precisely because these two groups are the common audiences of securitizations. The specific focus and contents of each summary report changes from year to year.

Besides the source specific information, data was collected on whether climate change was framed as a threat, and further categorized using the category variables: an unspecified or generalized threat, a threat to the environment or biodiversity, a threat to peace or security nationally or internationally, a threat to the economy, a threat to the future, a threat to health or 'our way of life, which ranged from the spread of specific diseases to more abstract threats, threats to humankind or human civilization, and finally an 'Other' category, which mostly includes the unique threat posed to low-lying

island states. These categories were chosen inductively and are deliberately somewhat broad. The number of changes resulting from climate change that could be depicted as threats is vast and globally distributed. Choosing categories that are overly specific would make the study unwieldy. To code the data, the language that counted as describing a threat was fairly restricted. Many editorials call climate change a 'challenge', or an 'obstacle.' I did not code these cases as using a threat framing because communicating threats, especially a securitizing move, is meant to be explicit. Innocuous words that indicate that climate change is a difficult subject do not translate the same urgency or danger that explicit threat language does.

Differing Interpretations

The methodologies employed in this study lead to a necessarily subjective interpretation of texts, and a small change in interpretation translates to a significant change in findings. Throughout the data, many actors framed climate change as a threat to the planet. The exact meaning of what this means, that anthropogenic climate change threatens planet Earth, is not completely clear. No scientific studies have found evidence that climate change could stop the rotation of the Earth or implode the planet itself. This leaves two options for interpretation that have different consequences for this study. First, threats to the planet could be interpreted as threats with an unspecified or generalized referent object. This interpretation basically equates threats to the planet with threats *on* the planet, as in 'climate change is the greatest threat on Earth'. Second, threats to the planet could be interpreted as threats to all things on the planet, which would characterize climate change as a threat to humanity and human civilization.

When the data are coded to interpret threats to the planet as threats to humanity, the number of macrosecuritizations increase in some sources, and is unchanged in others. I made the decision to use this interpretation because I believe it is the intended meaning of the authors. However, I do admit that there is a degree of subjectivity to this decision.

The criteria for macrosecuritizations could be restricted for explicit threats to the survival of humanity, but this does not reflect the symbolic or implied meaning of much of the language that securitizing actors use. Threats to the environment and unspecified threats can be seen as macrosecuritizations due to their symbolic purpose, and their inherent vagueness, respectively. Many of the environmental referent objects are meant to have a wider, symbolic value. This broader value can be seen as a macrosecuritization in that it is meant to connect a global movement to protect the environment and counteract the effects of climate change. This is apparent in the choice of the polar bear as the symbol of environmental groups. In much of the climate communication that makes use of polar bear imagery, the focus is not so much on polar bears, as it is on a global environmental movement with polar bears as the face. In this way, polar bears have opened "a window on a global crisis." Outside of threats to specific species, threats to the 'environment' are general enough that the label macrosecuritization can be applied. It follows that anything that threatens the environment writ large also threatens humanity, considering that humanity is both part of and wholly dependent on the environment.

Admittedly, there are caveats to this interpretation. Sometimes an environmental group really does just care about the polar bear, or a certain species of South American

tree frog. However, these groups are often using the symbolism of a certain species as a flag to rally around in the struggle against global environmental change. This interpretation does risk mislabeling instances, but I believe it provides a useful analytical viewpoint.

Unspecified climate threats also fit neatly into the category of macrosecuritizations because of their inherent vagueness. This vagueness can make these instances a universal threat. The author or speaker does not single out a referent object, leaving the position open for any and all referent objects. Of course there are possible caveats to this as well. There may be instances where some contextual knowledge might make the referent object clear, but the text itself does not do so. As they stand, vague threats emanating from climate change signify macrosecuritizations in that an unknown threat could be a threat to everything.

Scientific Community

The scientific community was the most conservative in their prescriptions of the threat posed by climate change. However, the number of threats mentioned within the IPCC report summaries do increase from 2001 to 2014. The 2001 and 2014 report summaries use language framing climate change as a threat to the environment or biodiversity. This language was often strong, with predictions ranging from, "substantial damage to or complete loss of some unique systems and extinction of some endangered species," to "a large fraction of species face increased extinction risk due to climate change."[38] The IPCC reports in 2001 and 2014 employed the framing of climate

[38] Intergovernmental Panel on Climate Change, "Climate Change 2001: Synthesis Report. Summary for Policymakers," 2001, 12.

change as an existential threat to many species and whole ecosystems. Threats to human health appear in IPCC reports from 2001 and 2014. These threats are focused, within IPCC summary reports, on populations in low-income countries due to the inability to adapt to increased health risks. All three reports include a discussion of the predicted adverse effects associated with climate change. However, the 2007 report is shorter and is limited to a mostly technical discussion.

The 2014 IPCC summary report expands upon the previous, more reserved threat-framing of the previous reports and includes predicted threats to economies and an increased likelihood of violent conflict, translating to a threat to international peace and security.[39] The report also predicts a wide-reaching general threat that, "warming by the end of the 21st century will lead to high to very high risk of severe, widespread and irreversible impacts globally."[40] The absence of predictions framing climate change as a threat to humanity is not entirely surprising considering the extensive review process IPCC reports undergo before publication. The line-by-line discussion of scientific research tends to lead to conservative conclusions by the IPCC.[41] I do not consider threats to the environment as macrosecuritizations in the case of IPCC reports, as scientific reports are not likely to use animals as a symbolic representation of larger issues in the same way that activists would.

Intergovernmental Panel on Climate Change, "Climate Change 2014 Synthesis Report Summary Chapter for Policymakers," 2014, 13.

[39] Intergovernmental Panel on Climate Change, "Climate Change 2014 Synthesis Report Summary Chapter for Policymakers," 2014, 15-17.

[40] Ibid., 17.

[41] "Principles and Procedures." IPCC - Intergovernmental Panel on Climate Change. Accessed January 23, 2017. http://www.ipcc.ch/organization/organization_procedures.shtml.

The scientific literature contributes to the facilitating conditions of securitizing climate change, as the science provides a basis for which to make predictions for securitizing actors. Scientific data from the IPCC provide the external context that increases the chance of success for securitizing actors. The context provides cultural meaning, which along with textual meaning, create the semantic repertoire of security.[42]

Political Party Platforms

Political party platforms offered the widest range of threat-framings within the data. Climate change as a threat to humanity was among the least common ways of framing climate change within party platforms, occurring only 9 times in the 62 party platforms mentioning climate change, but this framing was more common than within all other sources. This way of threat-framing was mostly used by left-leaning political parties, with the exception of Germany's Christian Democratic Union (CDU). The US Democratic Party was the first party to use the threat-to-humanity framing, saying in its 2008 party platform that, "our response [to climate change] will determine the very future of life on this earth."[43] The Democrats' 2016 platform warns of leaving "a planet that has been profoundly damaged," and in the 2008 party platform planned to defeat "the epochal, man-made threat to the planet: climate change."[44] This language is not contained to the US. In 2004 the Australian Labor Party said saving the planet is "the

[42] Thierry Balzacq, "A Theory of Securitization," In Securitization Theory: How Security Problems Emerge and Dissolve, edited by Thierry Balzacq, 1–30. New York: Routledge, 2011, 13-15.
[43] Democratic National Committee, "Democratic Party Platform," 2008. http://www.presidency.ucsb.edu/ws/?pid=78283.
[44] Democratic National Committee, "2016 Democratic Party Platform," 2016, 27. http://www.presidency.ucsb.edu/papers_pdf/117717.pdf.
Democratic National Committee, "Democratic Party Platform," 2008. http://www.presidency.ucsb.edu/ws/?pid=78283.

greatest intergenerational challenge of them all."[45] But this instance lacks explicit threat language. The Labour Party of New Zealand used similar language in 2014 when it framed climate change as, "a severe threat to the planet and to the future of humans and other species."[46] The only conservative party to use this framing in the data was Germany's CDU in 2009 when it called climate change a danger to creation.[47] This use of slightly stilted and biblical wording perhaps reflects the party's Catholic base, and therefore Catholicism's concept of environmental stewardship.

The Australian Greens used different wording in 2013 but with similar connotations when they called climate change a threat to our society.[48] Germany's The Left characterized climate change as aggravating the daily struggle for survival of millions of people in its 2009 party platform, and while this does not come off as a threat against all of humanity, it is a threat against a large portion of humanity.

Climate change as a threat to the environment or biodiversity or a vague generalized threat were the most common framings in political platforms. Each of these framings were used 16 times within the 62 platforms mentioning climate change. Including all threat-to-humanity instances, macrosecuritizations occurred 41 times

---

[45] Andrea Volkens, Pola Lehmann, Theres Matthieß, Nicolas Merz, Sven Regel: The Manifesto Data Collection. Manifesto Project. Version 2016b. Berlin: Wissenschaftszentrum Berlin für Sozialforschung (2016).

[46] New Zealand Labour Party, "Policy Platform," 2013, 6. https://www.labourparty.org.nz/sites/default/files/NewZealandLabourPartyPolicyPlatform.pdf.

[47] I'm grateful to my colleague Stefanie Neumeier for clarification on the connotation of this phrase in German. Christlich Demokratische Union. "Wir Haben Die Kraft: Gemeinsam Fuer Unser Land. Regierungsprogramm 2009-2013," 2009, 70. http://www.kas.de/upload/ACDP/CDU/Programme_Bundestag/2009-2013_Regierungsprogramm_Wir-haben-die-Kraft_Gemeinsam-fuer-unser-Land.pdf.

[48] The Australian Greens. "Standing Up for What Matters: The Greens' Plan for a Better Australia," 2013, 20. https://manifesto-project.wzb.eu/down/originals/63110_2013.pdf.

within 62 political platforms. Macrosecuritizations are common within political party platforms. The reason for this is explained below. Predicted environmental threats from climate change are set within a national context in party platforms, most clearly illustrated by Australian Parties' focus on the threat posed by climate change to the Great Barrier Reef.

Editorials

Within the newspaper sources there is a large disparity in language used when discussing climate change, and also a large disparity in the attention given to the issue. This reflects the ideological spectrum of the *Wall Street Journal*, the *Washington Post*, and the *New York Times*. Threats to humanity and civilization are the third most common framing of climate change among editorials. This framing of climate change occurred in the *New York Times* and the *Washington Post*, but not in the *Wall Street Journal*. As a percentage of the total, this framing was the third most common, with 3 percent of the total articles. Among these editorials, framing climate change as a threat to humanity or human civilization was more common than framing it as a threat to health, security, and the economy.

As with other sources, the most common ways of framing climate change in the *New York Times* was as either an unspecified threat or a threat to the environment or biodiversity. But within editorials, threats to humanity occurred eighteen times, which accounts for 3 percent of all editorials mentioning climate change. This 3 percent contains some rather striking macrosecuritizations. In an editorial in the *New York Times* in October 2007 about Al Gore being awarded the Nobel Peace Prize, the

editorial board echoes the sentiments of the Peace Prize Committee in calling climate change a threat to "the security of mankind."[49] Another instance, also in 2007, says that humans now have, "the power to destroy…the balance of life on earth."[50]

This set also includes two instances of opinion columnist Paul Krugman framing climate change as a threat to our civilization, both in 2015. In an opinion piece about terrorist attacks in Paris in November 2015, Paul Krugman said "when President Obama describes climate change as the greatest threat we face, he's exactly right. Terrorism can't and won't destroy our civilization, but global warming could and might."[51] Krugman penned a similar statement in December of 2015 in refence to the Republican Party that said "we're looking at a party that has turned its back on science at a time when doing so puts the very future of civilization at risk."[52] These two articles represent explicit macrosecuritizations on the part of Krugman.

The *Washington Post* published far fewer editorials mentioning climate change, and only three that framed climate change as a threat to humanity. These editorials used less explicit and more euphemistic language when describing climate change as a threat to humanity. Editorials in the *Washington Post* called for climate action to "save the planet."[53] The *Washington Post* also warned of "taking a huge gamble with the world's future" and saving "the earth from terrible injury."[54] The two most common framings in

[49] Editorial Board, "A Prize for Mr . Gore and Science," *New York Times*, October 10, 2007.
[50] Editorial Board, "Evangelical Environmentalism," *New York Times*, March 10, 2007.
[51] Paul Krugman, "Fearing Fear Itself," *New York Times*, November 16, 2015.
[52] Paul Krugman, "Climate Denial Denial," *New York Times*, December 4, 2015.
[53] Editorial Board, "Climate Change Lessons; It's not easy going green," *Washington Post*, December 14, 2008.
[54] Eugene Robinson, "Green Grass Roots," *Washington Post*, September 23, 2014.; Editorial Board, "The World's Collective Pledge," *Washington Post*, December 13, 2015.

the *Washington Post* were unspecified threats, and threats to the environment. Both of these framings occurred in percentages only slightly below those of the *New York Times*. Finally, in the *Wall Street Journal* climate change was only framed as a threat a single time, and the framing was as an unspecified threat. The editorial calls climate change a "far-off and diffuse threat[s]."[55]

Overall, of the 621 editorials mentioning climate change in all three newspapers, 12.9% explicitly framed climate change as a threat, and 3% framed climate change as a threat to humanity or human civilization, as shown in Table 1. By far the two most common ways of framing climate change as a threat were to the environment, with 5.6%, and as an unspecified threat, with 5.2%. Combining these categories increases the frequency of macrosecuritizations to 13.8% of all editorials in this dataset.

With these two categories labelled as macrosecuritizations, as I have argued for, the top three most common categories for editorials are macrosecuritizations. Even if we reject environmental referent objects and undefined referent objects as macrosecuritizations, threats to humanity and human civilization are still the third most common referent object in this dataset.

Analysis

In Table 1, we can see that 13.8% of the newspaper editorials about climate change from the chosen time period and publications contain macrosecuritizations. As a share of the total climate threats, these three categories account for 77%. These broad threats are the dominant way of framing climate change in these publications. Political

[55] Bret Stephens, "A Denier's Confession," *Wall Street Journal*, August 28, 2007.

party platforms also contain a high number of macrosecuritizations. 67% of the party platforms mentioning climate change contain macrosecuritizations, and 59% of all climate threats within party platforms are directed towards the environment, humanity, or are non-specific. Tables 1 and 2 also show that without including environmental referent objects and unspecified referent objects, macrosecuritizations are still among the most common ways of framing climate change. The question that this leads us to is why, during this period, this kind of framing has not been more effective.

The presence of a threat-to-humanity framing, the narrower interpretation of a macrosecuritization, within political party platforms provides interesting insights into the goals of political actors. Political actors employing this framing would likely be the most legitimate actors to do so. Political actors do not necessarily possess the most legitimacy when compared to other actors, but in the case of possible climate securitizations the political actors would be among the most legitimate because solutions to climate change are policy-oriented. Therefore, any viable climate solution would revolve around political actors and rely on their implementation of the solution.

As Table 4 illustrates, political party platforms that contained humanity as a referent object have twice as many referent objects when compared to platforms that exclude humanity as a referent object, but do frame climate change as a threat. These political actors, by including several securitizations within party platforms, are attempting to construct what the Copenhagen School calls a security constellation. Security constellations are a concept that the Copenhagen School uses to show that securitizations at separate levels can be connected by social identities and political

processes.[56] In employing macrosecuritization framing, along with multiple other referent objects, these actors are attempting to order lower climate securitizations (international security, human security, national security).

This is a strategy meant to overcome the difficulty of securitizing abstract threats, because the abstract threats "are still too subtle and indirect to trigger the levels of mass identity necessary for securitization."[57] This bundling, argue Buzan and Waever, creates a security constellation that orders all securitizations below the macrosecuritization.[58] This is done to tap into identities more closely linked to the environment, national security, or the economy, and use this identity connection to support the macrosecuritization. This same sort of bundling does not occur in editorials, most likely due to the medium. Party platforms can be hundreds of pages, and editorials rarely stretch for more than a few pages. This limited space in which to get the point across in editorials means that the authors cannot connect separate securitizations easily. Of all the editorials examined that contained climate threats, the number of threats in each editorial was slightly more than one, on average. This limitation of the medium likely explains the lower incidence of macrosecuritizations within newspaper editorials.

The Absence of an 'Other'

[56] Barry Buzan and Ole Wæver. "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory." Review of International Studies 35.2 (2009): 257.
[57] Buzan, Barry, Ole Wæver, and Jaap De Wilde. *Security: A New Framework for Analysis*, (Boulder, Colorado: Lynne Rienner, 1998), 37.
[58] Barry Buzan and Ole Wæver. "Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory," *Review of International Studies* 35.2 (2009): 257-258.

Underpinning the difficulty of a successful macrosecuritization is the lack of an 'Other' to securitize against. In climate macrosecuritizations, the threat is defined as universal, precluding the existence of a threatening other, or referent subject. The universal referent object and the universal referent subject are one and the same. Even with the more common smaller-scale referent objects climate change does not represent an 'Other'. While middle level referent objects have the benefit of a closer identity relationship than system level referent objects, both levels lack an opaque 'Other' under anthropogenic climate change.

The option for securitizing actors of climate change is to create an 'Other'. Actors could hold up a single actor, or group of actors, as being more responsible for the universal threat than others. There has been an attempt to establish fossil fuel companies as this other, which has taken the form of a movement to divest from the fossil fuel industry.[59]

Conclusion

Macrosecuritizations, threats to the environment, unspecified threats, and threats to humanity, dominate elite discourses on climate change. In the case of political party platforms this is true from the period 1997-2015, and for editorials this is true from the period 2007-2015. The dominance of these framings has not led to enforceable international agreements, and has not led to citizens of these countries personally

[59] David Kaiser and Lee Wasserman, "The Rockefeller Family Fund vs. Exxon," *New York Review of Books* December 8, 2016.; David Kaiser and Lee Wasserman, "The Rockefeller Family Fund Takes on ExxonMobil," *New York Review of Books*, December 22, 2016.

connecting climate change to their own lives. This is due to the psychological distance that these framings create, which I will explore deeper in chapters 2 and 3.

Political actors make the macrosecuritization case along with several lower-level securitizations in order to bundle and control them. The humankind macrosecuritization is connected, through identity, to the lower level securitizations. The referent objects of the lower-level securitizations are much more salient than the referent object of the macrosecuritization, humanity. The threats of lower-level securitizations are also more salient because in the macrosecuritization the threat is 'us'. This effort to create a wide-ranging security constellation is an attempt to overcome the abstract nature of the referent subject. The threats are so varied and far-reaching that the threats overcome the abstractness of the referent object.

Areas of further research would include, firstly, an examination of the previous newspapers starting from 1997 to incorporate discourse surrounding the Kyoto Protocol. Also interesting, but more daunting, would be to track climate discourse starting at the 1972 Stockholm meeting or the 1992 Rio Earth Summit. Including this period would possibly have a more common occurrence of macrosecuritizations, because climate discourse in the early 2000s was influenced by Al Gore's stark climate warnings. Analyzing editorials from newspapers outside of the US would provide a more comprehensive international view of climate change among elites. Analysis of a major newspaper from each country examined in the party platforms would offer a thorough view of among western states. Securitization theory is not widely applied outside of western democratic states, but inclusion of non-western states', or even a greater number of western states' political rhetoric on climate change would provide a

clearer view of climate change framings. The views of small island nations would provide a particularly interesting insight because to many of them climate change is quite possibly an existential threat. A wider selection of scientific sources, in addition to the IPCC's conservative and immense review process, would most likely provide a broader and possibly more threat-laden view of climate change.

Table 1:

Referent Object of Climate Change Threat											
Newspaper Editorials 2007-2015											
	n	Is it framed as a threat?	Unspecified	Environment/bio diversity	National security	International security/stability	The economy	The future	Health/way of life	Humankind/ civilization/	Other
NYT	444	61	25	28	3	2	1	0	7	15	2
WSJ	56	1	1	0	0	0	0	0	0	0	0
WaPo	121	18	6	7	2	0	0	1	4	3	3
total	621	80	32	35	5	2	1	1	11	18	5
Percentage of total		12.9	5.2	5.6	0.8	0.3	0.2	0.2	1.8	3.0	0.8

Table 2:

Referent Object of Climate Change Threat									
Political Party Platforms 1997-2016									
	Is climate change mentioned?	Is it framed as a threat?	Unspecified	Threat to peace? (national or international security/stability)	Environment/ biodiversity	Humankind/ civilization	The economy	Health/Way of life?	Future
Total	62	26	16	10	16	9	8	9	2
Percentage of total	72.1	42	26	16	26	15	13	15	3.2

Table 3:

Number of Referent Objects in Party Platforms		
	Platforms with macrosecuritizations	Platforms without macrosecuritizations
Average number of different referent objects	4	1.9

Chapter 2: Visual Securitizations in Climate Communication

Securitization theory is centered on the speech act and the effects it can have on an audience, but as Michael Williams argues, in a world as dominated by the image as our own a restriction to speech seems incomplete.[60] Williams notes the increasing importance of visual images not only for political communication, but also communicative action in general.[61] The security issues of the late 20th Century became entangled with, and inseparable from, their visual representations. Because of this, Williams calls for a more thorough examination of the image in security studies generally, and within securitization theory more specifically.[62] Williams returns to Buzan and Waever to clarify that securitization is not inherently bound to speech, but relies on "a broader performative act which draws upon a variety of contextual, institutional, and symbolic resources for its effectiveness."[63] It is these contextual and symbolic resources that will be the main points of discussion for this chapter.

The editorials in chapter 1 represent an elite discourse on climate change, which has been established as the delineating line for legitimate politics. But that discourse is only part of the picture, so to speak. Visual images dominate modern life and play an important part of the dissemination of information. Images have a strong emotional power that climate activists are very much aware of and try to use to their advantage. Images related to climate change have appeared in political cartoons, used on signs at protests, depicted in movies (most notably Al Gore's *An Inconveinient Truth*), and are

[60] Michael C. Williams, "Words, images, enemies: Securitization and international politics," *International Studies Quarterly* 47.4 (2003): 524.
[61] Ibid., 524.
[62] Ibid., 524-526.
[63] Ibid., 526.

shared and circulated across the internet.[64] These images are used to illustrate to the viewer what climate change will do, and what it is doing to the world we know, and/or what should be done about it. Cartoons may depict an exaggerated version of rising sea levels to deliver a political message, news coverage and movies may show enormous blocks of Arctic ice crashing into the sea, and protestors may hold signs showing human hands physically protecting the earth.[65] What these images do not do is bring home the dangers of climate change. These images present climate change as an abstract issue. Without a certain degree of salience, we cannot expect the viewer of these images to be moved to action.

This chapter is structured in two sections. The first section will offer a brief survey of how securitization scholars have attempted to integrate the image into their work. This literature offers an interesting variety of cases from the Doomsday Clock to cartoon depictions of the Prophet Muhammad that have become securitized. The second section will cover the common ways of depicting climate change visually through different media.

The Image in Securitization Theory

Williams is not the first to engage the image in international politics, or security for that matter. Recent scholarship on the image in international relations is grounded in the work of Roland Bleiker, specifically his 2001 article on 'the aesthetic turn' in

[64] Patrick Chappatte, "Someday, People may Provide a new Energy Source," Cartoon. *New York Times*. December 4, 2015. https://www.nytimes.com/2015/12/04/opinion/cartoon-chappatte-on-climate-change.html?rref=collection%2Fbyline%2Fpatrick-chappatte.; Al Gore, *An Inconvenient Truth*, directed by Davis Guggenheim, (2006; Paramount Classics).
[65] "Peoples Climate March Printable Posters," NRDC. March 27, 2017. Accessed April 2017. https://www.nrdc.org/peoples-climate-march-printable-posters.

international politics.[66] Bleiker introduces aesthetics in international politics as opposed to mimetic forms of representation, that attempt to represent "world politics as-it-really-is."[67] In Bleiker's conception of aesthetics in international politics, there exists a gap between the object being represented and its representation. The essence of Bleiker's argument is that within that gap, the translation between object and representation, is where politics resides.[68] This is thoughtfully articulated in an article that precedes Bleiker's introduction of the aesthetic turn, Dauber's examination of the impact of televisual images on US involvement in Somalia.[69] Dauber restricts her examination to photojournalism, including images and videos broadcast on the news and images in print media. Dauber makes this decision because the audience does not perceive photojournalistic images as representative, but rather mimetic representations, or evidence of an event. This perception of photojournalism makes the audience even more susceptible to the power of images.[70]

Dauber argues, citing press reports, that it was not the casualties inflicted in Somalia that led to the withdrawal of American troops, but rather the reaction to images of the casualties.[71] Besides illustrating poignantly how images affect perceptions and reactions in security situations, Dauber stresses the matter of context. In relation to images, the context into which they are produced is pre-existing. The context that surrounds the image contributes to the ways it is interpreted. In the case that Dauber

---

[66] Roland Bleiker, "The Aesthetic Turn in International Political Theory," *Millennium* 30.3 (2001): 509-533.
[67] Ibid., 510.
[68] Ibid., 510.
[69] Cori Dauber, "Image as Argument: The Impact of Mogadishu on US Military Interventions," *Armed Forces and Society* 27.2 (2001): 205-229.
[70] Ibid., 207.
[71] Ibid., 215.

examines, the surrounding captions, headings, and text shape the way the images of captured or killed American soldiers are perceived and understood.[72] But Dauber takes a narrow view of context. There are two relevant aspects of context within securitization theory, which Buzan and Waever call facilitating conditions; these aspects are a determining factor in the success of the securitization. The first aspect of context is what Buzan and Waever call the "internal, linguistic-grammatical," which sets the structure and rules for the securitization itself.[73] This is the context that Dauber refers to, the context of the newspaper page itself. Dauber only alludes to the second, larger context. This larger context encompasses the audience's attitudes, and the specific temporal-cultural space that the image is produced in. Buzan and Waever deem this context the, "external, contextual and social."[74] And while Buzan and Waever connect the external context directly to the securitizing actor, it can be realistically applied to a general societal predisposition. Dauber considers these factors, but does not directly connect them to her other contextual factors. She mentions that the images of captured US soldiers in Somalia are reminiscent of US POWs in Vietnam, situating them within a societal historical context.[75] This societal context is something that both actor and audience are aware of and can draw upon when they use images.

An important factor of context is that it does not lead to a single interpretation. Different communities have something like a 'collective visual memory' that does not lead to a single interpretation, but does limit the amount of possible interpretations

[72] Ibid., 210.
[73] Barry Buzan, Ole Wæver, and Jaap De Wilde, *Security: a new framework for analysis* (Lynne Rienner Publishers, 1998), 32.
[74] Ibid., 32.
[75] Cori Dauber, "Image as Argument: The Impact of Mogadishu on US Military Interventions," *Armed Forces and Society* 27.2 (2001): 213.

within a community.[76] For example, Dauber's images of captured or killed American soldiers in Somalia play into the 'collective visual memory' or societal historical context of the Vietnam war, and the possible interpretations are withdrawal or to scale-up the intervention. Even if the available differing interpretations are at extreme ends, they are restricted.[77] This collective visual memory represents how images can have power in a society over time. In much the same way that images of POWs in Somalia are reminiscent of POWS in the Vietnam War, climate activists use depictions of the Earth that are reminiscent of images shown around the world in the late 1960s and early 1970s that showed earth, alone, for the first time. Those images had a certain societal weight that current activists draw upon. Collective visual memory influences how an audience interprets the images that are presented to it, and this interpretation has implications for the success of a securitization.

Replying to Williams's call for an exploration of images in securitization, several scholars have conducted insightful research into the relationship between the two. Lene Hansen provides a useful framework for analyzing images in securitization in her work on the Muhammad cartoon crisis. Hansen describes in detail three aspects of visual securitizations. The first aspect is immediacy, which draws upon the emotional weight that the image holds above textual securitizations and is tied into the larger social context. Supporting the immediate emotional power of images is the authenticity that accompanies some forms of visual communication, especially photojournalism.

[76] Lene Hansen, "Theorizing the image for Security Studies: Visual securitization and the Muhammad Cartoon Crisis," *European Journal of International Relations* 17.1 (2011): 55.
[77] Cori Dauber, "Image as Argument: The Impact of Mogadishu on US Military Interventions," *Armed Forces and Society* 27.2 (2001): 218.

This immediacy is especially evident when comparing images to text, which takes time and attention to communicate its message. This is a point that Dauber makes also.[78] The second aspect is circulability, based on the ease with which modern media can disseminate images. Hansen claims that this ease challenges the traditional political elite securitizing actors. And finally, the third aspect is ambiguity, which alludes to the imprecise nature of images. Images may be able to efficiently communicate emotions, but they cannot communicate specific policies. Also, due to the possibility for multiple interpretations, completely different conclusions can be made from the same image. Hansen states that whether the ambiguity of images is a benefit or a drawback of a securitization cannot be answered through theory, but must be empirically tested.[79] These three attributes of visual communication that Hansen lays out set the stage for the examination of further visual securitizations.

Hansen also constructs a framework for studying images in securitization in direct reply to Williams' request for one. Hansen's framework consists of four parts, "the image(s) themselves, the immediate intertext, the dominant policy discourses in the country/locale in question, and the linguistic texts that attribute meaning to the image or a group thereof."[80] The image is the necessary starting place, as the content of the image is the starting place for the securitization itself. The intertext of the image is equivalent to Buzan and Waever's internal grammar; how the immediate context of the image works to create a securitization. The final two parts of the framework seek to explain

[78] Ibid., 206.
[79] Lene Hansen, "Theorizing the image for Security Studies: Visual securitization and the Muhammad Cartoon Crisis," *European Journal of International Relations* 17.1 (2011): 57-58.
[80] Ibid., 55.

the external context, or how the image works to affect policy, and how social context works to provide a meaning for the image.

Before moving on to the visual securitization of climate change, it is necessary to clearly state what constitutes an image, and whether images can speak for themselves. Heck and Schlag's analysis of a TIME magazine cover, and its securitization of the female body in the war in Afghanistan provides several useful insights into what constitutes an image, and the ability of the image to 'speak security.'[81] Heck and Schlag, paraphrasing Mitchell, claim that studying the visual is not limited to media and images, but can extend to mental images. What an image depicts is dependent on how an image is perceived. And thus, images "do not exist prior to their constitutive relations with producers and spectators."[82] The discussion of visualizing climate change below will include some points on how climate change is visualized mentally. On the question of whether an image itself can 'speak security,' or to put it more bluntly, whether an image can contain an inherent argument, there seems to be some disagreement between Mitchell, Hansen, and Heck and Schlag. Hansen quotes Mitchell as saying "images are not words. It is not clear that they actually 'say' anything. They may show something, but the verbal message or speech act has to be brought to them by the spectator, who projects a voice into the image…"[83] Heck and Schlag reference this same quotation, but also offer a different perspective. The authors cite Bredekamp, who argues that the gap between object and representation give the

[81] Axel Heck and Gabi Schlag, "Securitizing Images: The Female Body and the War in Afghanistan," *European Journal of International Relations* 19.4 (2013): 891-913.
[82] Axel Heck and Gabi Schlag, "Securitizing Images: The Female Body and the War in Afghanistan," *European Journal of International Relations* 19.4 (2013): 897.
[83] Lene Hansen, "Theorizing the image for Security Studies: Visual securitization and the Muhammad Cartoon Crisis," *European Journal of International Relations* 17.1 (2011): 54.

image its own voice.[84] Unfortunately, this debate, and the debate over the exact definition of an image, are not settled within the literature. But the discursive nature of securitization would seem to necessitate a view that images do not speak for themselves. For an image to speak for itself, that voice would have to be uniform. To put it differently, for an image to have its own voice it would have to be able to argue for a single interpretation, something that Hansen says is impossible. I agree with Hansen's assertion. If an image has two possible interpretations that are directly contradictory, then the image is not speaking with a single voice.

Vuori's analysis of the *Bulletin of Atomic Scientists'* (*BAS*) Doomsday Clock offers a case study that leads into discussions of climate change nicely. Vuori's work uses the Doomsday Clock as a symbol of a macrosecuritization, but in this instance the image is used in an attempt to *desecuritize* nuclear weapons and nuclear war.[85] The Cold War is one of the few instances that can be categorized as a successful macrosecuritization, one that overshadows a national referent object and creates a systemic level threat. The scientists in Vuori's case study are attempting to desecuritize nuclear weapons by using an image with emotional power to symbolize mankind's destruction. The use of a clock as the visual symbol, and the internal context of the clock counting down lend a feeling of doom that contains an underlying call for rapid change to avert disaster.[86] This desecuritization attempt led by scientists from *BAS* also offers a case study of how actors outside of the political elite use their social capital to

[84] Axel Heck and Gabi Schlag, "Securitizing Images: The Female Body and the War in Afghanistan," *European Journal of International Relations* 19.4 (2013): 898.
[85] Juha A. Vuori, "A Timely Prophet? The Doomsday Clock as a Visualization of Securitization Moves with a Global Referent Object," *Security Dialogue* 41.3 (2010): 255-277.
[86] Ibid., 259.

make arguments. The legitimacy these scientists hold in the eyes of the public does not stem from a political legitimacy, Vuori argues, or even from a competence in nuclear weapons policy. It stems from their legitimacy as scientists, which lends itself to other fields.[87] It is this legitimacy that the scientists utilize to make their desecuritizing claim. Vuori summarizes the basis of their appeal:

> Indeed, through the symbol of the Doomsday Clock, the Scientists have been able to combine their social capital as voices of reason and objectivity with that of the soothsayer to influence society and behaviour. While science deals with concepts, the symbol of the Clock relates to emotions; while the Scientists' textual arguments try to awaken the reason of their audience, the symbol of the Clock tries to reach its bare sensibilities (cf. Stegeman, 1969).[88]

This combination of reason and emotion is a possible strategy for securitizing/desecuritizing, and presents a potential pathway for communicating climate change for other actors outside of the political elite. The Doomsday Clock serves as a fascinating analysis of a macrosecuritization at work, and also the power of a visual desecuritization. Also interesting is that the scientists at *BAS* have been including threats from climate change into their Doomsday Clock assessments since around 2007.[89] But ultimately the desecuritization that the scientists pursued was unsuccessful, evidenced by the continual existence of nuclear weapons.

Before turning to the visual representations of climate change, it is worth summing up what has been established about the study of images in securitization. To study the image in securitization is to attempt to understand how an image, which is not

[87] Ibid., 262.
[88] Juha A. Vuori, "A Timely Prophet? The Doomsday Clock as a Visualization of Securitization Moves with a Global Referent Object," *Security Dialogue* 41.3 (2010): 263.
[89] "Timeline," Bulletin of Atomic Scientists, accessed March 10, 2017, http://thebulletin.org/timeline.

necessarily limited to physical images, can create the feeling of identity that is critical for a successful securitization. Whether that feeling is created by the image itself, or the discourse surrounding the image, is not settled. It is essential to understand the immediate, internal context as well as the societal, external context to fully evaluate the image and its surrounding discourse. Images are different from spoken or written securitizations in that they possess an immediate emotional weight. This rapid affective power of images is what sets them apart as tools of communicative action. Where images do not differ from words is the way they are spread and shared, and their indefinite meaning. Establishing these traits of the image allows for a clearer appraisal of the literature on communicating climate change visually, which will be covered in the next section.

Visualizing Climate Change

The literature on visual securitization of climate change is small, but there is a budding subset of Communication Studies that takes an interdisciplinary approach to how climate change is communicated, how to do it effectively, and how to study it. The literature referenced in this section reflects the interdisciplinary nature of climate communication. When considering how climate change is communicated, the image seems to be particularly useful. The global nature of anthropogenic climate change means that communication must be able to overcome spoken language barriers, and embrace the near-universal language of the image. The emotional weight, or in Hansen's terms, the immediacy of the image could be essential to condensing the abstract nature of climate change. The media reflected in this literature varies widely, ranging from mental images, to newspapers, to visualizations of scientific data, to

videos, and to photographs. The following section provides an overview of the literature on communicating climate change visually, with attention to common referent objects. This overview seeks to provide a visual reply to the previous chapter's data on common referent objects within text.

The only article to directly address the three themes of securitization, visual imagery, and climate change is Rørbæk's analysis of the film shown at the opening ceremony of COP15 in Copenhagen in 2009.[90] Rørbæk analyzes the film under the assumption that climate change has already been successfully securitized, and attempts to determine what this film contributes to the existing securitization.[91] The film, shown to a crowd of diplomats and climate experts from around the world, depicts a young girl, who after dreaming of the horrors of a changing global environment, pleads for help from the audience.[92] The film, a clear securitization, is also one of the few securitizations with a clearly defined and limited audience. While the audience is the international group of climate negotiators themselves, Rørbæk argues that the intended referent object is universal, or what he calls "one global collective identity."[93] This presents difficulties within a traditional securitization framework, and also within a Schmittian conception of identities. The difficulty lies within the fact that a universal referent object, or 'Self', seems to preclude the possibility of a threatening subject, or 'Other'.[94] Rørbæk paraphrases Schmitt by saying that "this renders the formation of

[90] Tore Rørbæk, "Words, visuals, and the vanished enemy: Visual securitization and the COP15 opening film," In *Climate Change, Human Security and Violent Conflict*, ed. Jurgen Scheffran, Michael Brzoska, Hans Gunter Brauch, Peter Michael Link, and Janpeter Schilling, (Springer Berlin Heidelberg, 2012), 273-287.
[91] Ibid., 277.
[92] Ibid., 273.
[93] Ibid., 273.
[94] Ibid., 284.

identities unfeasible as it considers the identification of an enemy 'Other' as a condition for the possibility of a 'Self'."[95] In the analysis of the film, Rørbæk attempts to determine a defined 'Other".

In the film, the girl is seen fleeing floods, tornadoes, and other extreme events that will likely be exacerbated by climate change. Rørbæk posits that the 'Other' is represented by these extreme events and not by any human representative.[96] The threat from these extreme events stems from the actual sources of global climatic change, which are not depicted in the film, which Rørbæk argues could mean that identities are not relevant to the film.[97] In the end, Rørbæk attributes the lack of a definitive 'Other' in the film to the inherent ambiguity of images, leaving the role of 'Other' to be filled in by the audience.[98] This article raises questions as to whether a truly universal 'Self' is possible.

Visualization of Climate Change in the Media

Much of the literature on this topic is focused on the representation of climate change in newspapers. O'Neill offers a particularly thorough analysis of the imagery associated with newspaper coverage of climate change in the US, UK, and Australia.[99] Within these data O'Neill found that the most common images associated with climate change, on average 48%, are pictures of people, and within that group most were

[95] Ibid., 286.
[96] Ibid., 282.
[97] Ibid., 283.
[98] Ibid., 285.
[99] Saffron J. O'Neill, "Image matters: Climate change imagery in US, UK and Australian newspapers," *Geoforum* 49 (2013): 10-19.

images of political figures.[100] The next most common grouping to be depicted was climate impacts, ranging from landscapes to animals to agriculture.[101] Also common is climate protest, and much less common is climate causes and solutions.[102] O'Neill argues that the dominant ways of visualizing climate change in the newspapers examined contribute to a feeling that climate change is both a contested issue, and "distant in both its causes and impacts."[103] Images of frustrated politicians and tension between political parties work to frame climate change as a contested space.[104] Images that are devoid of humans and depict smokestacks, ice, or other generic representations create a frame of 'distance'. These depictions deny agency to the audience by putting climate solutions out of reach. This distancing is perceived as a physical distance (e.g. melting ice in the arctic), and a mental distance (by placing the burden on industry to change itself).[105] To apply the securitization framework, images of politicians do not contribute to a securitization. O'Neill's analysis that depictions of politicians maintain the frame of 'contestation' would suggest that the images actively work against a securitization of climate change. Images of climate impacts could support a securitization argument, but the 'distancing' effect of generic nature images could reduce the salience of the threat.

DiFrancesco and Young also determine common representations of climate change in newspapers, however their study is limited to Canadian newspapers.[106] Their

[100] Ibid., 13.
[101] Ibid., 14.
[102] Ibid., 14.
[103] Ibid., 14.
[104] Ibid., 15-16.
[105] Ibid., 17.
[106] Darryn Anne DiFrancesco and Nathan Young, "Seeing climate change: The visual construction of global warming in Canadian national print media," *Cultural Geographies* 18.4 (2011): 517-536.

focus on Canada is justified by the "central role of wilderness, landscape, and climate in Canadian identity and sense of place."[107] They find that roughly half of the images connected to climate coverage contained depictions of nature, two thirds contained depictions of humans, and one third contained depictions of industry and technology.[108] Their primary results are not altogether different from O'Neill's above, but their deeper analysis contains insights relevant to securitization:

> [A]rticles that appear with images are significantly more likely to include, among other things, attributions of blame for climate change, identification of a victim (human or non-human), use of a 'crisis' metaphor, mention of rights (human or non-human), and mention of the future. This combination of themes suggests that images tend to appear alongside articles that are moral or emotional in tone.[109]

These findings read like a checklist of requirements for a securitization argument. Attributing blame roughly corresponds to establishing an 'Other', while identifying a victim corresponds to establishing the referent object. The reference to a crisis is common to securitization, as it makes normal political debate inadequate in addressing the issue. And lastly, the mentioning of the future speaks to securitization's necessary allusion to possible threatening futures. This would suggest that within these data, securitizing arguments are more likely to use images than coverage that is not making a securitizing argument.

The role of the image in communicating climate change has also been applied to television coverage. León and Evriti conducted a content analysis of Spanish TV news

[107] Ibid., 518.
[108] Ibid., 521-523.
[109] Ibid., 524.

coverage of climate change over two short time periods.[110] Their findings differ from those of studies of newspaper coverage of climate change, and they attribute this to the medium. The most common shots used to accompany stories on climate change are of melting Arctic ice, which the authors include in their consequences category.[111] But shots of international climate negotiations, depicting people, are a close second.[112] This preference for the spectacular images of destruction and beauty in the natural world is likely due to television's gravitation towards "high impact rather than less tangible environmental processes."[113] León and Evriti also use this preference for events to explain the skew towards consequences, over causes and solutions, in TV coverage.[114] They also find that overall coverage of climate change on Spanish television decreased over the chosen time period, which could be explained by a lack of 'fresh' images to use on television.[115]

Visualization of Climate Change by Activists

Moving outside of the media realm, Cozen brings our attention to how activists (in the limited, colloquial definition of the word) attempt to use images that play on a societal visual memory, in order to mobilize climate action.[116] *Green Patriot Posters* is an initiative by the Canary Project that aims "to highlight the activism side of the acknowledged tension between dual impulses: artistic expression and activist goals."[117]

---

[110] León, Bienvenido, and Mª Carmen Erviti, "Science in pictures: Visual representation of climate change in Spain's television news," *Public Understanding of Science* 24.2 (2015): 183-199.
[111] Ibid., 191.
[112] Ibid., 191
[113] Ibid., 185.
[114] Ibid., 185.
[115] Ibid., 196.
[116] Brian Cozen, "Mobilizing artists: Green patriot posters, visual metaphors, and climate change activism," *Environmental Communication: A Journal of Nature and Culture* 7.2 (2013): 297-314.
[117] Ibid., 298.

This initiative invites artists to create artistic posters that seek to change perceptions of climate change and sustainability, and also invoke some form of public mobilization. The project very clearly and purposefully centers itself around US propaganda posters from World War Two, which is a deliberate choice to play upon a collective visual memory.[118] This framing does a number of things for the project, Cozen argues. By evoking World War Two, a challenge that was overcome (by some at least), it reinforces the idea that climate change is assailable.[119] By linking to a challenge that we have collectively overcome before, it could work to counteract problems of efficacy.

Cozen also cites negatives of embracing the war mobilization framing. First, to construct a common enemy might lead to that enemy redoubling its efforts. What this means in the case of climate change, with the exact scope of the threat undefined, is not clear. The language used to create the war framing could be limiting in their appeal. Those that do not share the collective visual memory of US World War Two propaganda would likely be immune to the emotional weight of it. Also, Cozen argues that the binary focus of flipping existing practices of consumption limits the available options.

Further analysis of how activists visually frame climate change raises questions of how activists balance communicating the facts of climate change with communicating the emotions of climate change. Manzo raises questions of how to 'bring home' the risks of climate change. Manzo first focuses on images of polar bears, the most circulated visual representations of climate change. Manzo argues that despite

[118] Ibid., 299.
[119] Ibid., 302.

the ubiquity of images of polar bears, they might be limited in their usefulness for communicating climate change.[120] The limited usefulness is traced back to the emotional undertones of images of polar bears on melting ice. Firstly, the emotional weight might be lost on those without an affinity for wildlife.[121] Therefore, its appeal may not be the universal image of climate change it is often thought to be. The second drawback is caused by the emotional appeal of these images. Manzo argues that images of polar bears, which are based on a 'fear appeal', work to create the same feeling of distance mentioned above.[122] Manzo moves on to efforts by activist organizations in the UK to bring climate change into the everyday. Manzo cites literature that argues that using fear as a motivating force to change behavior is not effective, unless the fear can become personal.[123]

Distant fears only work to frame climate change as an unstoppable process. Returning to the securitization framework, it appears that efficacy is not a factor for a successful securitization, but salience is. Therefore, for a securitization of climate change to achieve its desired goals it does not need to change the personal behavior of the audience, only to convince the audience of the immediacy of the threat. Her statement that "research demonstrates that iconic representations of climate change are often distancing…and paradoxical in the way they heighten people's sense of the issue's importance while simultaneously making them feel less able to do anything

[120] Kate Manzo, "Beyond polar bears? Re-envisioning climate change." *Meteorological Applications* 17.2 (2010): 197.
[121] Ibid., 198.
[122] Ibid., 198.
[123] Ibid., 200-201.

about it" leaves open the possibility that iconic representations could support a successful securitization.

The second part of Manzo's study considers the communicative power of global climate maps and their ability to communicate danger. Maps and atlases that illustrate global trends in temperature change, carbon emissions, or other measurable factors can communicate cause and effect in ways that highlight differences in the temporal and spatial consequences of climate change.[124] While these methods might be desirable for communicating clearly the technical problem of climate change, they can also work against the creation of a universal referent object. Images of the earth from space have historically been extremely valuable in creating a common identity in that they show the Earth as an isolated object, with national borders and human constructions erased. Schneider attributes the galvanization of the environmental movement to mobilizing and unifying photographs of earth, specifically the 'Earth Rise' photograph taken during the Apollo 8 mission in 1968 and the 'Blue Marble' photograph taken during the Apollo 17 mission in 1972.[125] These images were so powerful at their time of creation that they were firmly solidified in the collective visual memory of not only Americans, but for people around the world.

Schneider argues, paraphrasing Heidegger, that over time the intense immediate, emotional weight of these images and images like them became naturalized. And this naturalization leads to measurement of the Earth as an object of study, which in turn

[124] Manzo, Kate. "Beyond polar bears? Re-envisioning climate change." *Meteorological Applications* 17.2 (2010): 203.
[125] Birgit Schneider, "Climate model simulation visualization from a visual studies perspective." *Wiley Interdisciplinary Reviews: Climate Change* 3.2 (2012): 190-191.

leads to "the notion of a world that is imagined as manageable by humans."[126] Schneider reiterates the point more bluntly by saying that the pure, vulnerable 'Blue Marble' seen by Apollo 17 is changed in our collective imagination when we apply the colors of scientific visualization. Thus, by trying to better communicate climate change, visualizations of scientific data possibly make solutions more difficult. Schneider argues that the application of the reds and oranges representing abnormally high temperatures in scientific data to a blue and vulnerable image of the earth shifts the thinking from unity to powerlessness.[127] Once again, the literature points to visualizations of climate change stoking a feeling of distance and powerlessness.

There is a subsection of the literature on climate change communication that focuses on interviews and surveys to determine how climate change is visualized mentally. These articles might shed light on how individuals perceive and react to climate communication. Nicholson-Cole, through interviews with three demographically different groups in the UK, connects personal feelings of salience towards climate change to a certain kind of mental imagery.[128] Unsurprisingly, mental images of climate change are in large-part dependent on images encountered in media, especially television.[129] Participants in Nicholson-Cole's study offered up their mental images, which reflected the images of melting ice, hurricanes, and struggling polar bears that are abundant in climate change communication. To increase the likelihood of engagement she offers suggestions for communication. The first is to make

[126] Ibid., 191.
[127] Ibid., 189.
[128] Sophie A. Nicholson-Cole, "Representing climate change futures: a critique on the use of images for visual communication," *Computers, Environment and Urban Systems* 29.3 (2005): 264-265.
[129] Ibid., 264.

visualizations relatable across both time and space. In other words, to localize the problem. This suggestion is aimed at overcoming the established distancing effect of much visualization. Next, is to base visualizations on the most accurate predictions possible. This is to maintain legitimacy with the audience. Next, to use visualizations that use affect to seize the attention of the audience. The usefulness of this is firmly established. Lastly, Nicholson-Cole suggests changing communications based on different target audiences separately from geographic targeting.[130]

Much of the literature surveyed above does not give the audience of the images much consideration. Tailoring imagery to different audiences, and thus being able to fine-tune, would likely make securitization arguments more effective by being able to more precisely appeal to the collective visual memories of different groups. There is evidence that supports the idea that localized threats have an increased level of salience. O'Neill and Hulme found that participants in their study felt the most interest in, and most engagement with, visually presented climate risks when they were both localized and simplified. For example, participants felt more interested in images of climate threats to London, as compared to a visual representation of ocean acidification. [131] This study is limited in its scope, but coincides with many of the arguments already made. The idea of localization is not new in norms literature. Acharya's definition of localization in relation to norms boils down to a foreign norm or idea being molded by

[130] Ibid., 267-268.
[131] Saffron J. O'Neill and Mike Hulme, "An iconic approach for representing climate change," *Global Environmental Change* 19.4 (2009): 406.

local norm entrepreneurs to fit better within existing norms.[132] Norms can be adapted and shaped to be more compatible with local beliefs, norms, and practices.

To summarize, the literature on visually representing climate change has much to say about its effectiveness, its forms, and its implications. Several studies support the notion that much of the imagery used works to distance the audience from the threat. This distancing reduces the salience of the threat. Regardless of the intended referent object, images that distance the audience from the threat work against a successful securitization.

Implications for the creation of a universal referent object appear throughout the literature. In determining a common referent object among visual securitization attempts, the ambiguity of images works against us. Images of melting Arctic ice, hurricane destruction, and dry river beds do not have a clear referent object. From the image alone, the only thing being clearly threatened is the environment through drastic changes. Images of polar bears, as common as they are, do explicitly show a referent object, the polar bear. But as has been shown above, the usefulness of polar bear images is limited due to the distancing effect they have. The images of humans, common in much of the newspaper coverage, possibly implies a universal human referent object. To determine this more precisely, a deeper analysis of the way images of humans and the corresponding text, or internal grammar, interact to frame the human as threatened. Also enlightening would be some insights into how audiences perceive images of humans in relation to climate change coverage in media. Images of humans do not

[132] Amitav Acharya, "How ideas spread: Whose norms matter? Norm localization and institutional change in Asian regionalism," *International organization* 58.2 (2004): 245.

conclusively create a universal referent object, as the politicized coverage of climate change depicting humans in Australia shows.[133]

There is not an image representative of climate change that has a universal applicability and can be effective over time. Just as any image is open to multiple interpretations, any visual representation of climate change will not lead to a single interpretation. Another complicating factor is that it is not clear whether a universal referent object is even achievable without a solidified, tangible, 'Other'. In Schmittian logic, the 'Self' is constituted in relation to the 'Other'. What is clear is that for any individual to feel personally threatened by climate change, the threats need to be applied locally. Whereas global images once worked to unify environmental efforts, the evidence now points to local images as a more powerful force in environmental discourses, even though environmental change has taken place on a global scale. The limited appeal of much of the imagery suggests that not only must visualizations be localized; they must also be tailored for different groups.

The creation of an 'Other' in climate communications is difficult because the 'Other' is humanity. However, there is a possibility that localization and tailoring of messages could create outgroups based on localized threats. If countries that would see considerable harm from climate change impacts better understand the threats they face, countries with high carbon emissions could become the 'Other'. The opposite is just as likely; wealthy developed states could frame the poor and vulnerable victims of climate impacts as a threat to themselves. Many scholars have warned against creating climate

[133] Saffron J. O'Neill, "Image matters: Climate change imagery in US, UK and Australian newspapers," *Geoforum* 49 (2013): 10-19.

out-groups, and some have argued it is already happening.[134] The creation of a climate 'Other' could be destructive. Localizing the threats precisely enough could 'bring home' the dangers that the audience faces in such a way that it could become tangible in a way that would replace the need to put a face on the threat.

It is worth noting that of the cases surveyed here there is not an example of political elites using visual imagery to support a securitization. The only possible exception is the film shown at COP15, as it was created by a private production company "at the request of the Danish Ministry of Foreign Affairs."[135] This fact is due to the lower legitimacy of media and activist actors in comparison to political elites; the reliance on the affective value of images is used to fill the gap. It is not unheard of for political elites to resort to visual securitizations, Colin Powell's highly visual presentation at the UN serving as the best example.[136]

The last conclusion that we can make from the literature on visual representations of climate change is that there is some evidence that language that uses many of the tactics of securitization is more often accompanied by images. DiFrancesco and Young's study was only of Canadian newspapers, so the applicability is limited.[137]

---

[134] Christian Parenti, *Tropic of chaos: Climate change and the new geography of violence*, (Nation books, 2012).; Chris Methmann and Delf Rothe, "Tracing the spectre that haunts Europe: the visual construction of climate-induced migration in the MENA region," *Critical Studies on Security* 2.2 (2014): 162-179.
[135] Tore Rørbæk, "Words, visuals, and the vanished enemy: Visual securitization and the COP15 opening film," In *Climate Change, Human Security and Violent Conflict*, ed. Jurgen Scheffran, Michael Brzoska, Hans Gunter Brauch, Peter Michael Link, and Janpeter Schilling, (Springer Berlin Heidelberg, 2012), 283.
[136] Klaus Dodds, "Steve Bell's Eye: cartoons, geopolitics and the visualization of the War on Terror'," *Security Dialogue* 38.2 (2007): 163.
[137] Darryn Anne DiFrancesco and Nathan Young, "Seeing climate change: The visual construction of global warming in Canadian national print media," *Cultural Geographies* 18.4 (2011): 524.

This evidence supports the notion that visual securitizations are used more often by actors outside of the political elite.

The final chapter will seek to answer the question of whether climate change has been successfully securitized, and what determines a successful securitization. The questions of whether climate change should, or should not be, securitized will also be addressed. And finally, some strategic guidance to more effectively securitize climate change will be offered.

Chapter 3: Securitizing Anthropogenic Climate Change

There have been numerous instances of climate change and security coexisting within discourses, dating farther back than many would expect.[138] For many this has been done to take advantage of the attention and action that the word security demands. The goals of these actors are varied: some want to see their country remain secure in a rapidly changing global environment, others wish to protect the vulnerable from the worst effects of change, and still others want rapid and widespread change within human systems, because they see the future of humanity in jeopardy. Some of these actors have seen more success than others.

This chapter aims to answer three questions revolving around securitization, and the securitization of climate change in particular. First, what makes a securitization successful is not clearly defined within the literature. Without addressing and having a framework for explaining how the transition from securitizing move to complete securitization happens, the process cannot be explained adequately. Second, I will

[138] Crispin Tickell, *Climate Change and World Affairs*, (Cambridge, MA: Harvard, 1977).

determine whether climate securitizations have been successful. Complicating this answer is the existence of several climate security discourses that can, and have been, securitized apart from one another. Third is the question of whether a securitization can be 'just'. This is one of many questions where recent securitization scholars have come to disagree with the original Copenhagen School scholars. Lastly, I attempt to offer some guidance for a strategic guidance on climate change communication.

Securitizations may be successful in creating legitimacy for policy measures designed to confront the characterized threat, but policy implementation can be unsuccessful due to competing securitizations. What makes one policy win-out over another is the salience of the threat defined in the securitization. I argue that this concept of competing securitizations explains why in some cases policy measures have not been taken on climate change, because other securitizations are more salient. On the question of whether a securitization can be 'just', or morally right, I argue that the intersubjective process of securitization is not inherently undemocratic. Because securitization is discursive and requires the audience to consent, the process can be democratic and open. This openness is also reliant on non-exceptional measures that already exist within a democratic system. Finally, drawing on the visual communication literature of chapter 2, I argue that climate threats need to be localized with targeted visual representations of threat to sufficiently communicate the consequences climate change.

This chapter begins with discussing the empirical evidence of links between climate change and security in an effort to understand how scientific evidence may contribute to establishing a societal context for how climate change and security are

perceived. Next, I determine what makes a securitization successful and determine whether climate securitizations have been successful within different discourses. I then go on to outline what makes a securitization 'just' and end by offering some guidance on better communicating climate threats.

Societal Context – Empirical Evidence for Climate Security

Before turning to the question of whether anthropogenic climate change has been successfully securitized, a consideration of the empirical evidence for climate security risks is warranted. As has been established in the previous chapter, the societal context is an important factor in facilitating a securitization. Considerable empirical evidence is not enough to establish climate change as a security threat within securitization because the issue needs to be framed in the language of security. There is empirical evidence that issues like obesity and drunk driving pose a threat to humans, but they have not become securitized. For this to happen, a securitizing actor would have to communicate these issues as security threats that need an urgent policy response. However, empirical evidence can facilitate the construction of a securitizing move by contributing to a larger societal context. Generally, the empirical evidence on the links between environmental change and armed conflict is much less established than many in policy circles make it out to be.[139] These questions were originally given considerable attention in the late 1980s, a development that Simon Dalby claims was caused by the Chernobyl disaster and the exceptionally warm summer of 1988.[140] The issue has evolved and grown since then. There are several categories of research

[139] Ole Magnus Theisen, Nils Petter Gleditsch, and Halvard Buhaug. "Is climate change a driver of armed conflict?" *Climatic Change* 117.3 (2013): 614.
[140] Simon Dalby, *Security and Environmental Change* (Malden, MA: Polity Press, 2009): 14.

questions and different conceptions of security at play in this diverse research. To paraphrase Salehyan, most scholars agree that climate and conflict interact, but the details of that relationship are not well understood.[141]

There is a considerable amount of research on the links between climatic change and communal, intrastate, and interstate conflict. Altogether, the literature is inconclusive. In a survey of studies on climatic change and intrastate violence, Thiesen, Gleditsch, and Buhaug, find no conclusive relationship between the two. Studies of interstate conflict and water scarcity does not find an increase in conflict, and in some cases finds an increase in cooperation.[142] Salehyan has criticized much of the research on climate change and conflict for attempting to oversimplify complex relationships and ignoring the factors of human agency and government management.[143] At most, it has been established that there is some relationship between climate factors and conflict, but the exact nature of the relationship is far from understood. There are some that have made the connection between current conflicts and environmental change factors, but these studies are not without their criticisms. The Syrian civil war is among the most prominent.[144] To sum up the empirical evidence, the interplay between climatic factors

[141] Idean Salehyan, "Climate change and conflict: Making sense of disparate findings," *Political Geography* 43 (2014): 1.

[142] Colleen Devlin and Cullen S. Hendrix. "Trends and triggers redux: Climate change, rainfall, and interstate conflict." *Political Geography* 43 (2014): 27-39.; Shim Yoffe, Aaron T. Wolf, and Mark Giordano. "Conflict and cooperation over international freshwater resources: indicators of basins at RISR1." *Journal of the American Water Resources Association* (2003): 1109-1126.

[143] Idean Salehyan, "From climate change to conflict? No consensus yet." *Journal of Peace Research* 45, no. 3 (2008): 317.

[144] Colin P. Kelley, Shahrzad Mohtadi, Mark A. Cane, Richard Seager, and Yochanan Kushnir. "Climate change in the Fertile Crescent and implications of the recent Syrian drought." *Proceedings of the National Academy of Sciences* 112.11 (2015): 3241-3246.

and conflict is situationally dependent, has limited explanatory value, and is inconsistent.

Substantial empirical evidence can aid a securitization, but it is not a requirement. Security issues can exist independently of the objective threatening nature of the issue. Deadly issues like obesity and drunk driving are not security issues because they have not been securitized. The opposite is just as likely. Terrorism has been securitized in the United States to an extent that is disconnected from its objective threat.[145] Even if empirical evidence for a link between climate change and security was completely non-existent, climate change could still be securitized. Empirical evidence works as a facilitating condition for the success of a securitization by supporting a predisposition to the securitization.

Successful Securitizations

Within the Copenhagen School's framework for a successful securitization, the proposed emergency measures do not have to be implemented, the threat must only be accepted by the audience, and the actor freed from constraining rules.[146] In the words of Buzan, Waever, and de Wilde, a securitization is successful when it has gained enough credibility to "legitimize emergency measures or other steps that would not have been possible had the discourse not taken the form of existential threats, point of return, and necessity."[147] In essence, a securitization is successful when the stigma of taking

[145] John Mueller and Mark G. Stewart, "The Terrorism Delusion," *International Security* 37.1 (Summer 2012).
[146] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 25.
[147] Ibid., 25.

extraordinary measures has disappeared, not necessarily when the measures are taken. The Copenhagen School puts the power of determining a securitization's success in the hands of the audience.[148] The securitization argument has to convince the audience to an extent to "gain enough resonance for a platform to be made from it is possible to legitimize emergency measures."[149] Legitimacy is measured differently depending on the targeted audience. Legitimacy within the general public could be measured with survey data. The data in chapter 1 are an example of measuring legitimacy in elite discourses in that the consistent presence of a framing in a discourse represents an acceptance of that framing. An acceptance of that framing by those participating within it acts of evidence of legitimacy for that framing.

The considerable securitization literature that has evolved since the Copenhagen School first introduced the theory has critiqued and complicated the ways of determining a securitization's success. Floyd directly challenges the Copenhagen School's methods of determining a successful securitization on several points.[150] Floyd argues that it is up to the practitioners of security to determine success. This requirement would overcome what Floyd calls the 'constructivist deficit', because securitization cannot be truly constructivist if the actors themselves are not determining securitizations.[151] In Floyd's framework for successful securitizations, a change in behavior by the securitizing actor is required.[152] This framework is useful, but is overly constraining in some ways. Floyd's requirement that actors "act or change their

[148] Ibid.
[149] Ibid.
[150] Rita Floyd, "Extraordinary or Ordinary Emergency Measures: What, and Who, Defines the 'Success' of Securitization?" *Cambridge Review of International Affairs* 29.2 (2016): 677–94.
[151] Ibid., 678-679.
[152] Ibid., 679.

behaviour in response to the securitizing speech act they themselves uttered" severely limits the pool of eligible securitizing actors, perhaps unintentionally. If the securitizing actor and the actor implementing the policy must be the same, then scientists, activists, and other non-governmental actors are limited in the issues they can successfully securitize. There are certainly securitizing moves, even made by government officials, that pursue a policy change from another actor. This portion of Floyd's framework is overly constricting on the securitization process.

There are portions of Floyd's framework that are more useful. She states that while a policy change must happen for a securitization to be successful, it does not necessarily have to have the extraordinary quality required by the Copenhagen School.[153] This relaxation, or perhaps confusion, of the extraordinary measures requirement is seen in more recent works on securitization. This confusion has complicated the study of securitization itself, as some scholars have come to ignore completely the extraordinary measures aspect and focused solely on the language used by actors.[154] But the reliance on a call for extraordinary measures has been underdeveloped and does not reflect the reality of security practice. Exceptionality is not a requirement because there are numerous security threats that can be addressed without the addition of new powers.[155] To illustrate, in a securitization with State A as the referent object, and State B as the threat, extraordinary or emergency powers are not a necessity if there is an existing security structure in State A. If the president of State

[153] Rita Floyd, "Extraordinary or Ordinary Emergency Measures: What, and Who, Defines the 'Success' of Securitization?" *Cambridge Review of International Affairs* 29.2 (2016): 683.
[154] Matt Mcdonald, "The Failed Securitization of Climate Change in Australia." *Australian Journal of Political Science* 47.4 (2012): 582.
[155] Rita Floyd, "Extraordinary or Ordinary Emergency Measures: What, and Who, Defines the 'Success' of Securitization?" *Cambridge Review of International Affairs* 29.2 (2016): 685.

A, citing an existential threat, calls for war against State B, and the legislative body of State A consents, then there are no new powers created. There is nothing exceptional about a democratic body acting within its powers to make a formal declaration of war. The loosening of the extraordinary measures requirement within securitization may make the theory less concrete, but it also better reflects security practice. Salter argues that it is the creation of new *executive* powers that constitute a successful securitization, which he sees as non-exceptional.[156] The creation of new powers does not deny a securitization, but it is also not a requirement. Salter's executive power requirement only holds up if a declaration of war, or an authorization of military action is seen as a *new* power, and not one that previously existed through constitutionally created powers and a legislative process. I disagree with these authors that a successful securitization requires a change in policy. The basis of securitization is how the *perception* of an issue changes when security logic is applied. The theory has nothing to do with *action*. The success or failure of a policy implementation can be evidence of powerful competing securitizations, but does mean a securitization has failed.

McDonald's analysis of the failed implementation of climate change policy in Australia is an enlightening account of a securitization move without exceptional policy proposals. Between 2007 and 2009 Prime Minister Rudd invoked the language of climate security, and called for a national climate plan. McDonald uses survey data to show that these climate security arguments had broad public support but despite this,

[156] Mark B. Salter, "When securitization fails: The hard case of counter-terrorism programs." In *Securitization Theory: How security problems emerge and dissolve* ed. Thierry Balzacq (New York: Routledge, 2011): 121.

the national climate plan was never enacted.[157] The details of the national climate plan were not out of the ordinary in comparison to climate plans of other countries. McDonald's explanation for this failure is useful for examining the securitization of climate change on a larger scale. Mcdonald's explanation is that securitization happens in two separate stages, what Roe calls the 'stage of identification' wherein the threat is identified and recognized, and the 'stage of mobilization' wherein the suggested policy to respond to the threat is accepted.[158] A securitization may successfully reach the first stage, but fail to have its suggested policy implemented. McDonald's explanation, while interesting, does not accurately represent the framework of securitization. Any number of factors can make a policy implementation following a securitization unsuccessful, but this does not make the securitization itself unsuccessful. This is explained by the fact that securitizations do not exist in a vacuum, and must compete with other securitizing moves. McDonald's explanation for the failure of the mobilization stage of climate securitization in Australia is that the economic security argument had a directly contradictory policy suggestion, and Australians were more convinced, or more afraid of, the economic securitization argument.[159]

This explanation makes sense within the original framework of securitization without the need for the two-stage process. The climate securitization and the economic securitizations can exist simultaneously, but if the proposed policies directly contradict then the more salient threat will be responded to. Different referent objects affect how

[157] Matt Mcdonald, "The Failed Securitization of Climate Change in Australia." *Australian Journal of Political Science* 47.4 (2012): 580.
[158] Paul Roe, "Actor, Audience(s) and Emergency Measures: Securitization and the UK's Decision to Invade Iraq." *Security Dialogue* 39.6 (2008): 616.
[159] Matt McDonald, "The Failed Securitization of Climate Change in Australia." *Australian Journal of Political Science* 47.4 (2012): 590.

the audience responds to a securitization. If the economic securitization was made in a way that made it more salient for the general public, then it is not surprising that the economic policy was implemented.

Keeping the focus of securitization on discourse and not policy outcomes simplifies and analysis and prevents the explanatory power of the theory from being overstated. Chapter 2 established that images can be effective in securitizing, but also that images cannot advocate a single policy response. The policy response to the securitization, if one happens at all, is separate from the establishment of the securitization.

In sum, securitizations are successful when an audience accepts the securitizing move, which can be measured through discourse analysis, survey data, elections, and ways of estimating social acceptance. A securitization is still successful if the proceeding policy is not successfully implemented because securitizations can have competing policy implications. a securitization can be deemed successful in identifying a threat separate from acting on the threat.

Securitizing Anthropogenic Climate Change

Some have argued that climate change securitizations exist on several separate levels, separated largely by different referent objects. These multiple discourses are categorized as humans, states, the international system, and the ecosystem.[160] To use the language of security, these discourses revolve around human security, state security, international security, and ecological security. Acknowledging these different

[160] Matt McDonald, "Discourses of Climate Security," *Political Geography* 33, no. 1 (2013): 44.

discourses is important, as McDonald argues, because they have quite different policy implications for a response to climate change and can shed light on the more general issue of climate change politics. Effectively, these discourses can be securitized separately and either reinforce one another or marginalize one another.[161] In the same way that economic security arguments pushed out climate security arguments in Australia, different climate security arguments may work against one another. Taking McDonald's notion of competing climate-security discourses into consideration, then it is impossible to treat climate-security as a single securitization; it must be disaggregated. Because of the separation of securitization into two stages, this analysis will only seek to determine if the first stage has been successful. The success of the second stage requires more in-depth analysis that a case study of a specific securitizing move would better capture.

Schäfer et al. conducted a content analysis similar to the data presented in chapter 1 that tracks securitizing language connected to climate change in newspapers from a wide variety of countries.[162] Their study specifically focuses on the national security and human security discourses. Their study finds that from the period of 1996 to 2010, the use of securitizing language in climate change coverage increased 600% overall.[163] Worth noting is that this study found a considerable regional disparity, with western countries having higher levels of securitizing language. The prevalence of securitizing language within media coverage is not enough to definitively say whether

[161] Ibid.
[162] Mike S. Schäfer, Jürgen Scheffran, and Logan Penniket, "Securitization of media reporting on climate change? A cross-national analysis in nine countries," *Security Dialogue* 47.1 (2016): 76-96.
[163] Ibid., 85.

or not climate change has been securitized in the national and human security discourses, but it offers some evidence that this might be the case.

Within the international security discourse there is a harder case to be made that climate change has become securitized. The United Nations Security Council (UNSC), arguably the actor with the most legitimacy within international security discourses, has not directly addressed climate change. The UNSC has repeatedly called for more study of possible links, and has said that the links may exist. This lack of a full-throated declaration by the UNSC is somewhat curious in light of the UNSC's comments on the Ebola crisis in Africa, which they directly called a threat to international peace and security.[164] The Ebola crisis was similar to climate change in that it was a non-traditional security threat that many speculated could have larger traditional security implications.[165] There are other actors with high levels of legitimacy that have used relatively explicit security language to discuss climate change. After the United Nations General Assembly requested a report into the linkages between climate change and conflict, the office of the Secretary General issued its report *Climate change and its possible security implications* in 2009.[166] This report, using the 'might' and 'may' wording that is common in the empirical literature, discusses climate change in terms of a threat to human security, national security, and international security mostly through the mechanisms of resource scarcity, political destabilization, and migration conflicts. In the sense that securitizations represent predictions of a possible future, this report

[164] Shirley Scott, "Implications of Climate Change for the UN Security Council: Mapping the Range of Potential Policy Responses." *International Affairs* 91.6 (2015): 1328.
[165] "Obama says Ebola outbreak a 'global security threat'," *BBC*, September 17, 2014, http://www.bbc.com/news/world-us-canada-29231400.
[166] General Assembly Resolution A/64/350, Climate change and its possible security implications (11 September 2009).

qualifies as a securitizing move on the part of the Secretary General. The report even prescribes a policy response that boils down to accelerated mitigation efforts coupled with financing adaptation.[167]

Think tanks have been considerably active in climate security discourses. An analysis and categorization of some of the most prominent climate security think tank reports found that the most common discourse among them was that of human security.[168] One report was most concerned with national security, and another was focused on what the authors call 'global security'.[169] The concept of 'global security' is not well defined in the study, but it seems to be somewhat analogous to international security while some of the language is reminiscent of the ecological security discourse.[170] This study does have limitations, because the four reports analyzed cannot give us a general sense of how climate change is characterized by think tanks, only how security oriented think tanks discuss climate change as a security issue. Gleditsch and Nordås offer an analysis of IPCC reports' discussion of climate conflict links and find contradictory messaging.[171] The conflicting messages likely reflect the contradictory nature of the empirical literature that the IPCC bases its reports on.

Survey data give the most support in assessing whether climate change has been securitized within the general public, but makes it difficult to aggregate into separate

---

[167] Ibid.
[168] Michael Brzoska, "The Securitization of Climate Change and the Power of Conceptions of Security." *Security and Peace* 27.3 (2009): 144.
[169] Ibid., 144.
[170] Specifically, the notion of a change in the relationship between humanity and nature, which is reflected in the concept of the Anthropocene.
[171] Nils Petter Gleditsch and Ragnhild Nordås. "Conflicting Messages? The IPCC on Conflict and Human Security." *Political Geography* 43 (2014): 82–90.

discourses. A Pew research survey asked people around the world if "global climate change is harming/will harm people around the world."[172] In that survey, the global median that agreed with that statement was 51%, meaning a majority of people surveyed recognized climate change as harmful. Combining survey data and discourse analysis leads to the conclusion that the first stage of securitization has been successful within the human security discourse, the national security discourse, and possibly the international security discourse. Another survey allows for a deeper dive into the perception of climate threats within the United States. The *Climate Change in the American Mind* report offers evidence that a securitization with the ecological security discourse has been successful. In this report, a majority of respondents thought that climate change will cause a great deal of harm to future generations of humans, as well as plant and animal species. The success of a securitization of the climate change-human security discourse is also evident with 65% of respondents saying that climate change will cause a great deal, or a moderate amount of harm to people living in developing countries and the world's poor.[173] These data suggest that, within the United States, the first stage of human, national, and ecological security securitizations has been successful.

[172] Richard Wike, "What the world thinks about climate change in 7 charts." Pew Research Center. April 18, 2016. Accessed April 2017. http://www.pewresearch.org/fact-tank/2016/04/18/what-the-world-thinks-about-climate-change-in-7-charts/.
[173] Anthony Leiserowitz, Edward Maibach, Connie Roser-Renouf, Seth Rosenthal, and Matthew Cutler, "Climate Change in the American Mind," New Haven, CT: Yale Program on Climate Change Communication, 2016.

'Just' Securitizations

The Copenhagen School is clear in its conviction that securitizations are a negative development, and desecuritizations are desirable. Buzan, Waever, and de Wilde consider securitizations a failure to deal with issues through normal everyday political avenues.[174] The ideal situation would be to deal with an issue through normal democratic political debate. Some scholars have engaged with the possibility of a securitization that is not inherently 'bad'. Roe argues that the intersubjective nature of securitization maintains the openness of normal politics.[175] Some Copenhagen School scholars have even connected securitization to Schmitt's politics of exclusion.[176] The main assertion of these scholars is that securitization and security dialogues are inherently exclusionary and undemocratic. But security must exist within a democratic society, and cannot exist without security discourses.

Because securitization requires the consent of the audience, it can be understood as an agreement between securitizing actor and audience. The notion of consent is the basis of democratic governance. Some securitizations may appear to adhere to democratic norms and openness from a distance, but are carried out undemocratically. The Turkish referendum of April 2017 happened within democratic institutions, but the

[174] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 29.
[175] Paul Roe, "Is Securitization a 'Negative' Concept? Revisiting the Normative Debate over Normal versus Extraordinary Politics," *Security Dialogue* 43.3 (2012): 252.
[176] Michael C. Williams, "Words, Images, Enemies: Securitization and International Politics," *International Studies Quarterly* 47.4 (2003): 515.

vote happened under a state of emergency and there is substantial evidence of vote rigging.[177]

There are several critiques of securitization that hinge on the idea of securitization ending normal democratic processes.[178] Aradau focuses on the undemocratic nature of exceptional measures, arguing that the "speed required by the exceptional suspends the possibilities of judicial review or other modalities of public influence upon bureaucratic or executive decisions."[179] In other words, the urgency with which exceptional measures are called for in securitizing moves denies the possibility of normal debate and review.

The possibility of an 'open' or democratic securitization is improved by two aspects defined earlier. The separation of securitization from policy implementation means that the policy can still be defeated. The securitization creates the legitimacy for the policy, but does not put the policy into place. This is illustrated usefully in McDonald's account of climate securitization in Australia, wherein the audience consented to the initial framing, but not to the proposed policy. This makes it possible for the securitizing actor to receive feedback on the policy, tweak it, and once again seek consent from the audience. Aradau emphasizes that a securitization precludes sufficient time for a securitizing move to be contested. But this assertion does not

---

[177] Kareem Fahim, "In divided Turkey, president defends victory in referendum granting new powers," *Washington Post,* April 17, 2017. https://www.washingtonpost.com/world/in-divided-turkey-opposition-groups-challenge-vote-shifting-powers-to-president-erdogan/2017/04/17/afe0d9e4-2354-11e7-a1b3-faff0034e2de_story.html?hpid=hp_hp-top-table-main_turkey-823am%3Ahomepage%2Fstory&utm_term=.4361632b4493

[178] Claudia Aradau, "Security and the democratic scene: Desecuritization and emancipation," *Journal of International Relations and Development* 7.4 (2004): 388-413.; Andreas Behnke, "The message or the messenger? Reflections on the role of security experts and the securitization of political issues." *Cooperation and Conflict* 35.1 (2000): 89-105.

[179] Ibid., 392.

reflect how securitizing moves are depicted in the literature. Returning to McDonald, the securitization of climate change in Australia was directly contested by political actors, which led to the failure of the policy implementation.[180] The legitimation of the policy does not take the policy out of the democratic process.

The possibility of non-exceptional measures also helps to maintain the 'openness' of a securitization, in that the policy outcome may fall entirely within existing security frameworks. The proposed climate action plan in Australia was entirely unremarkable, it consisted of efforts toward mitigation, adaptation, and international climate diplomacy.[181] This plan was to be implemented through a regular parliamentary process, which ultimately failed. Aradau's focus on the exceptionality of securitizations and their undemocratic nature can only be applied to those securitizations that do call for such measures. However, exceptional measures are still a possibility, and the undemocratic features of emergency powers are not completely prevented.

Floyd has pushed back on this by creating a framework for a 'just' securitization, similar to the just war tradition. This framework contradicts core elements of securitization theory, and has requirements that are difficult to achieve. Floyd's framework has three criteria:

> (1) there must be an objective existential threat, which is to say a threat that endangers the survival of [a] an actor or an order regardless of whether anyone has realized this;

[180] Matt McDonald, "The Failed Securitization of Climate Change in Australia." *Australian Journal of Political Science* 47.4 (2012): 587.
[181] Ibid., 584.

> (2) the referent object of security must be morally legitimate, which is the case only when the referent object is conducive to human well-being defined as the satisfaction of human needs; and.
>
> (3) the security response must be appropriate to the threat in question, which is to say that (a) the security response must be measured in accordance with the capabilities of the aggressor and (b) the securitizing actor must be sincere in his or her intentions.[182]

From the start, Floyd's framework is incompatible with a traditional Copenhagen School view of securitization. For a 'just' securitization to require the existential threat to be objective, (i.e. measurable) contradicts the basis of securitization, which is that all threats are socially constructed. Buzan et al. entertain the idea that some threats could be objective, such as "tanks crossing the border," but they also maintain that the perceived hostility of the invaders is socially constructed.[183] Those tanks could be part of a peacekeeping force or participating in military drills. Buzan et al. go on to question whether an objective measure of security is even possible, as no theory has yet provided one. The incompatibility of this first requirement is acknowledged by Floyd.[184] The problem with Floyd's first criteria is not that it deviates from the original securitization theory, but rather that she offers no actionable way of determining an objective threat. She suggests that to determine an objective existential threat, we must look to the intention and the means of the threatening actor.[185] Both criteria are oftentimes

[182] Rita Floyd, "Can Securitization Theory Be Used in Normative Analysis? Towards a Just Securitization Theory." *Security Dialogue* 42.4–5 (2011): 428.
[183] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Reinner, 1998): 30.
[184] Rita Floyd, "Can Securitization Theory Be Used in Normative Analysis? Towards a Just Securitization Theory." *Security Dialogue* 42.4–5 (2011): 428.
[185]Ibid., 430.

unknowable. Applying these criteria to anthropogenic climate change sheds light on their clumsiness. Determining a threatening 'actor' within climate change is just as difficult as determining one in other non-traditional security threats. If a securitizing actor were to invoke rising sea levels as a threatening actor, then we must next determine its intention. There is no way to determine the intention of global environmental degradation, rising sea levels, the Ebola virus, and a host of other non-anthropomorphic threats. Floyd makes no effort to apply this objectification to non-traditional threats. The capability criteria is more applicable to some non-traditional threats, such as disease, but is still lacking. Determining the capability of climate change to threaten or inflict damage on any referent object is a difficult to determine and somewhat unpredictable due to the complexity of the global climate. There is no reliable way to determine the capabilities of a threatening 'actor' that is defined by uncertainty and unpredictability. Floyd goes on to say that an objective existential threat *cannot exist* without intentionality.[186] This means that many non-traditional security threats are completely excluded from her framework. An objective measure of the security threat is not attainable, and as such does not offer an insight in determining a 'just securitization'.

Floyd's second criteria, that of the appropriateness of the referent object, is also challenging. In her framework, the legitimacy of a referent object is based entirely on the conduciveness of the object to human well-being. She maintains that the principles that contribute to human well-being (autonomy and civil liberties) exist most commonly

[186] Rita Floyd, "Can Securitization Theory Be Used in Normative Analysis? Towards a Just Securitization Theory." *Security Dialogue* 42.4–5 (2011): 434.

in liberal democracies that uphold human rights.[187] This criteria is limiting in that it restricts 'just' securitizations to those within human security, national security, and international security discourses. The ecological security discourse, which holds the entire biosphere as its referent object, could never be 'just' unless the benefit to humans is clear. Ecological security seeks to reevaluate the relationship between humans and our natural surroundings.[188] Many of the societal benefits of globalization that increase autonomy would likely be seen as threats to ecological security. The concept of 'human well-being' may be underdefined here, but this criteria is more useful than the first. Restricting legitimacy to those referent objects that support democratic principles may balance out a possibly undemocratic securitizing move. A securitizing move that sacrifices democratic processes in the short term would be seen as legitimate only if it defends threatened democratic principles in the long-term.

Floyd's last criteria requires proportionality and sincerity. The proportionality condition is clear, but determining what is proportional is difficult if an actor cannot faithfully ascertain the capabilities of the threatening 'actor'. Models and estimates can give us some insight, but the prospect of climate tipping points that rapidly change the global environment create more uncertainty than models of more traditional securitizations. Sincerity is based on a matching up of word and action on the part of the securitizing actor. The securitizing move is conceived to benefit the referent object. If

[187] Ibid., 431.
[188] Dennis Clark Pirages and Theresa Manley DeGeest. *Ecological security: an evolutionary perspective on globalization*. Rowman & Littlefield Publishers, 2003.; Simon Dalby, *Security and environmental change*. Polity, 2009.

the implemented policy neglects the stated referent object, but benefits the actor, it is insincere and therefore illegitimate.

Considering the literature on 'just' securitizations, it seems to be that a workable framework does not exist. But some of the aspects established above might lay the groundwork for one. Most importantly, thinking of securitization process as a two-stage process maintains a level of 'openness' and this 'openness' is maintained when the prescribed policy is non-exceptional. A securitization must work within existing legal and democratic structure to be 'just'. Other than that, I argue, the intersubjective aspect and the necessity of consent within a securitization is sufficient for them to be 'just'.

Communicating Climate Threats

As discussed in chapter 2, a large portion of representations of climate change, especially visual representations, work to distance the viewer from the threat. These images of polar bears and melting glaciers do not decrease the recognition of the threat, but rather reduce the salience. Salience is important for many of the policy responses to climate change, because in some discourses the prescribed policies require individual behavioral change on a societal level. Societal behavioral change could in turn lead to greater support for similar behavioral changes within the international community; Finnemore and Sikkink note that this is a common pathway for norms.[189] The concept of strategic social construction is a process whereby norm entrepreneurs promote norms in order to change the behavior of others.[190] Two separate logics are at work in strategic

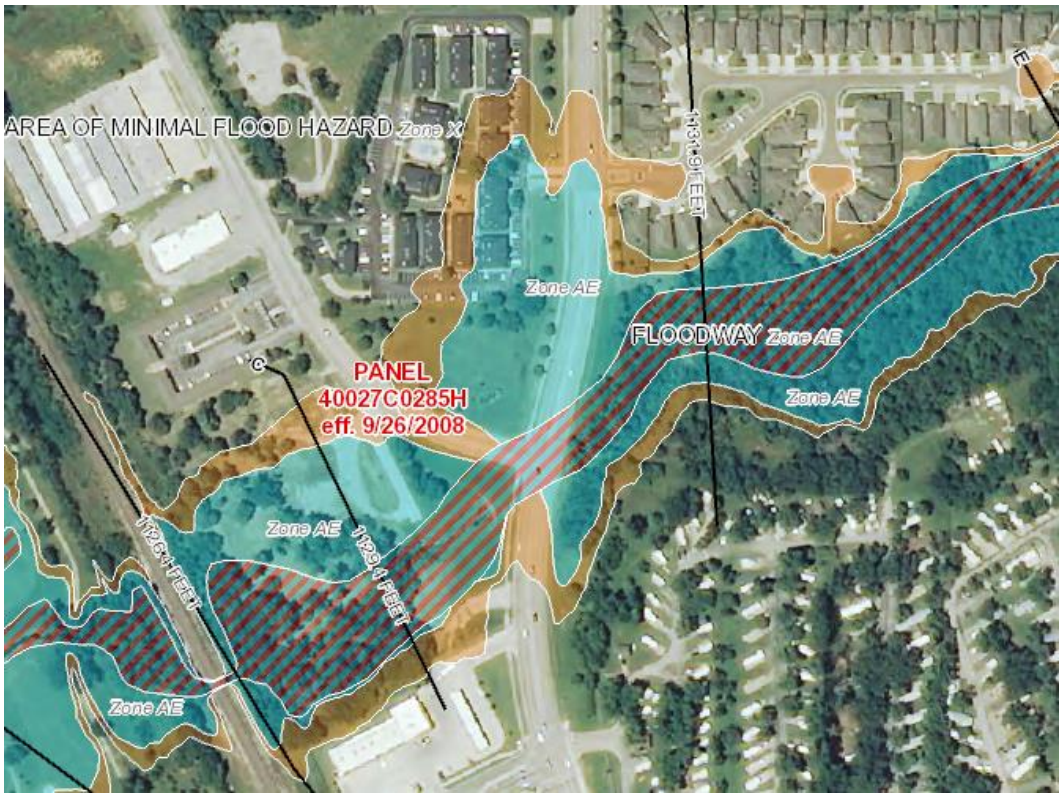
[189] Martha Finnemore and Kathryn Sikkink. "International norm dynamics and political change." *International Organization* 52.4 (1998): 893-894.
[190] Ibid., 910.

social construction: the logic of consequences, and the logic of appropriateness. These logics, and how they might be utilized to communicate the threats of climate change, will be briefly explored.

Drawing on the strengths and weaknesses of climate communication detailed in chapter 2, the logic of consequences can be used to increase the salience for an audience. As the literature in chapter 2 suggests, localizing the threats of climate change increases the salience of the issue.[191] The logic of consequences is driven by self-interest. An actor complies with a norm because doing otherwise would lead to an undesirable consequence. To localize the effects, and to play off of the logic of consequences, actors may want to turn to images similar to figure 1.[192] This image could overcome the kind of objectification that many global temperature and precipitation models fall into precisely because it is extremely localized.[193] Instead of creating the feeling of powerlessness created by other 'objective measures' of the earth, this image could create salience. By bringing down the scientific models from the god-like perspective to a more relatable one, these images allow the audience to better imagine how impacts of environmental change could personally impact them.

[191] Saffron J. O'Neill and Mike Hulme, "An iconic approach for representing climate change," *Global Environmental Change* 19.4 (2009): 402-410.; Sophie A. Nicholson-Cole, "Representing climate change futures: a critique on the use of images for visual communication," *Computers, Environment and Urban Systems* 29.3 (2005): 255-273.
[192] I am grateful to Dr. John Greene of the University of Oklahoma College of Atmospheric and Geographic Sciences for the inspiration for this visualization.
[193] Birgit Schneider, "Climate model simulation visualization from a visual studies perspective." *Wiley Interdisciplinary Reviews: Climate Change* 3.2 (2012): 185-193.

Figure 1: A FEMA map depicting areas of possible flooding in Norman, Oklahoma



The logic of consequences is in play here because the threat depicted in figure 1 is aimed at the personal safety and economic security of the viewer (assuming the viewer is seeing his/her own personalized version of this image). The localized view is a benefit, but also a drawback. A neighborhood view such as this has the powerful localizing effect for, at most, a few hundred people; certainly not a generalizable image. Data tools used by marketers to geographically target groups of people are more promising in being able to microtarget salient messages to an audience. Applying the same flood hazard metric to a landmark, such as a city center, could possibly increase the number of people that have an emotional reaction, but is not clear if the reaction would be as powerful.

Another possible avenue of localizing climate threats is that of virtual reality. Allowing the viewer/wearer to be immersed within a constructed possible future that is affected by climate change, and allowing him/her to interact with that world, could possibly overcome much of the problems of climate communication. This concept is already being applied to ocean acidification, one of the most distant and hard-to-grasp impacts of climate change.[194] Using virtual reality to localize climate change effects might be as simple as overlaying sea level rise projections onto Google street view and allowing someone to traverse their own city, or the world's landmarks. Virtual reality likely offers a more emotionally powerful experience for the audience, but is much more difficult to scale-up when compared to microtargeting.

To argue for a change in societal and international behavior because climate change threatens the existence of humanity, is to argue that change is appropriate. The concept of norms is based on the idea that identities influence our behavior. This all-encompassing norm is aided by its universalism, which some have argued is an attribute of successful norms.[195] The universality of the norm allows it to transcend specific cultures, but it also may inhibit internalization of the norm. To use the logic of appropriateness in climate communication, actors should play on factors of responsibility. The responsibility *of* humans *to* humans is where the norm of treating climate change as a threat to humanity should have the most traction. But that universality has not manifested itself internationally or domestically in many countries.

---

[194] Randy Rieland, "How Virtual Reality Can Help Us Feel the Pain of Climate Change." Smithsonian Magazine. October 26, 2016. Accessed April 2017. http://www.smithsonianmag.com/innovation/how-virtual-reality-can-help-us-feel-pain-climate-change-180960918/.

[195] Martha Finnemore and Kathryn Sikkink. "International norm dynamics and political change." *International organization* 52.4 (1998): 907.

The logic of consequences and the logic of appropriateness exist within the different climate security discourses, but are not equally prevalent within each. These two logics can and do exist simultaneously. An actor can recognize and act upon the consequences of climate change for himself/herself while also acknowledging that action is also appropriate outside of self-interest. This is apparent in human security and international security discourses that revolve around the vulnerability of certain populations and countries to shocks and instability. The promotion of human well-being and the stability of the international community is the appropriate action, but within these same discourses there are references to the potential for failure to create breeding grounds for resource starved and frustrated people. Separating these two logics within climate security discourses is difficult precisely because actors operate with motives.

Conclusion

In light of the difficulty of localizing the threats of climate change, turning to technology may be the answer. The use of data and microtargeting strategies for climate communication makes it possible to localize climate threats. Social marketing, or applying marketing methodology to influence public opinion to benefit the intended target and society as a whole, offers a clear, actionable strategy to drive behavioral change or support. Using this type of data, social marketers can tailor messages based on any number of segmented demographic categories. These strategies most often target based on behavior and attitudes. There is some evidence that this is an effective strategy.[196]

[196] Ann Bostrom, Gisela Böhm, and Robert E. O'Connor, "Targeting and tailoring climate change communications," *Wiley Interdisciplinary Reviews: Climate Change* 4.5 (2013): 452.

But climate change and its dangers have a decidedly geographic dependence that makes targeting based on geography, in combination with other demographic factors, important. Using climate forecasting, detailed messaging could be used on a city-wide basis, but could also be reduced to a zip code, or possibly even a neighborhood. This kind of segmentation is much less complex when compared to what political campaigns have been doing for years.[197]

This strategy would be effective in counteracting competing securitizations. If climate change communications can be highly localized, they can push back on those competing securitizations that may already carry more weight due to their salience. To apply this to a real-world example, if climate change threats had been tailored and localized in Australia, the competing economic securitization may not have been as strong. This is true because, once localized, the threats of climate change become linked to other sectors. If one fully understands the impacts of climate change in their day-to-day life, then they understand the economic, health, and social implications.

McDonald puts part of the blame for the failed securitization of climate change in Australia in the hands of a competing securitization that holds as its referent object the security of the Australian economy. A shrinkage of carbon emitting industries would hurt the economy. But if someone can see that Sydney may be flooded or it may be too hot to farm, then climate security can be linked to economic security. Not only

[197] Tanzina Vega, "Online Data Helping Campaigns Customize Ads," New York Times. Last modified February 20, 2012. http://www.nytimes.com/2012/02/21/us/politics/campaigns-use-microtargeting-to-attract-supporters.html.; Meta S. Brown, "Big Data Analytics And The Next President: How Microtargeting Drives Today's Campaigns," Forbes. Last modified May 29, 2016. https://www.forbes.com/sites/metabrown/2016/05/29/big-data-analytics-and-the-next-president-how-microtargeting-drives-todays-campaigns/#5f7fdfa76c42.

can localized targeting increase the salience, it can also increase the connection to other areas that climate change may affect.

This accomplishes what political actors are attempting in trying to securitize multiple sectors. The argument that climate change will adversely affect health, the economy, and the environment is made more convincing when those things can be shown through targeted communications. Targeted communications could be as precise as estimating increases in insurance premiums, or whether temperature changes make it possible for a certain type of insect or algae to now live in the targeted area. In trying to communicate to the broader public, much of the language and images associated with climate change work against the thing they are trying to accomplish, but images like figure 1 that can visualize climate change effects at a neighborhood level and take advantage of the immediacy of images. Seeing an image of your own neighborhood overlaid with graphics depicting likely flood levels, or sea level rise, would make these issues personal. Seeing the places you are most familiar with violated by flood waters would make the threat real. There may be other ways of articulating the threats of climate change on a more personal level. For example, Vice President Al Gore has replaced images of starving polar bears with images of mosquitoes at climate lectures.[198]

For the most part climate change discourses have been successfully securitized, but the prospect of enforceable international agreements has decreased in recent years. The number of people that see climate change as a very serious problem ranges from

[198] Maryn McKenna, "Why the Menace of Mosquitoes Will Only Get Worse," *New York Times Magazine,* April 20, 2017. https://www.nytimes.com/2017/04/20/magazine/why-the-menace-of-mosquitoes-will-only-get-worse.html

41-55% in the countries included in chapter 1, excluding New Zealand.[199] To change these numbers and create concerted national and international efforts to take action, actors need to operate on the understanding that truly, 'all politics is local'.

There are several ways to expand this research that would be useful in the future. Expanding securitization research outside of western democracies will help to broaden the theory. Including data from newspapers from every country that has party platforms would make the analysis more complete. Collecting and analyzing similar newspaper and political party data from non-western countries would shed light on how climate change is discussed in countries where the immediate effects will likely be much stronger. South Africa and India would be valuable starting places for expanding the research. Expanding the timeframe of the data would also be useful in tracking climate discourse since it first became a topic in public discourses in the late 1980s. Being able to examine how the discourses have changed over time would highlight how events shape how we think about an issue.

Executing a project of this size was a challenge in itself. Limiting the data collected to a size that was both manageable and at the same time representative was difficult. Using three newspapers based in the United States limits the applicability of the analysis to countries other than the US.

Anthropogenic climate change is an issue with effects that span the globe; effects that touch every country and every sector of life. But in communicating those

[199] Bruce Stokes, Richard Wike, and Jill Carle, "Concern About Climate Change and Its Consequences," Pew Research Center. Last modified November 5, 2015. http://www.pewglobal.org/2015/11/05/1-concern-about-climate-change-and-its-consequences/.

effects, the urgency is lost in abstractness. Actors have tried to frame climate change differently over the years, and personal behavior and international cooperation has ebbed and flowed.

Even if someone perfectly understands the mechanics of ocean acidification, it is no guarantee that they understand the implications. For people to understand the implications of climate change, the issue needs to be made personal. If real change is to happen, the dangers need to be disaggregated. Communities and individuals need to know what their worlds will look like with inaction. In other words, the biggest problem with communicating the dangers of climate change is not that there is no 'other' to point to, but the fact that the audience is too far removed from the referent object.

Bibliography

Acharya, Amitav. "How ideas spread: Whose norms matter? Norm localization and institutional change in Asian regionalism." *International organization* 58.2 (2004): 239-275.

Aradau, Claudia. “Security and the Democratic Scene: Desecuritization and Emancipation.” *Journal of International Relations and Development* 7, no. 4 (2004): 388–413.

Balzacq, Thierry. “The Three Faces of Securitization: Political Agency, Audience and Context.” *European Journal of International Relations* 11, no. 2 (2005): 171–201.

Balzacq, Thierry. “A Theory of Securitization.” In *Securitization Theory: How Security Problems Emerge and Dissolve*, edited by Thierry Balzacq, 1–30. New York: Routledge, 2011.

Behnke, Andreas. “The Message or the Messenger?: Reflections on the Role of Security Experts and the Securitization of Political Issues.” *Cooperation and Conflict* 35, no. 1 (2000): 89–105.

Bleiker, R. “The Aesthetic Turn in International Political Theory.” *Journal of International Studies* 30.3 (2001): 509–33.

Bostrom, Ann, Gisela Böhm, and Robert E. O'Connor. "Targeting and tailoring climate change communications." Wiley Interdisciplinary Reviews: Climate Change 4, no. 5 (2013): 447-455.

Brauch, Hans Günter. “Securitizing Global Environmental Change.” *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, no. March (2009): 65–102.

Brown, Meta S. "Big Data Analytics And The Next President: How Microtargeting Drives Today's Campaigns." Forbes. Last modified May 29, 2016. https://www.forbes.com/sites/metabrown/2016/05/29/big-data-analytics-and-the-next-president-how-microtargeting-drives-todays-campaigns/#5f7fdfa76c42.

Brzoska, Michael. “The Securitization of Climate Change And the Power of Conceptions of Security.” *Security and Peace* 27, no. 3 (2009): 137–45.

Buhaug, Halvard, and Ole Magnus Theisen. “On Environmental Change and Armed Conflict.” In *Climate Change, Human Security and Violent Conflict*, 8:43–55, 2012.

Buhaug, Halvard, and Ole Magnus Theisen. *On Environmental Change and Armed Conflict*. *Climate Change, Human Security and Violent Conflict*. Vol. 8, 2012..

Buzan, Barry and Ole Wæver. “Macrosecuritisation and Security Constellations: Reconsidering Scale in Securitisation Theory,” *Review of International Studies* 35 (2009): 253-276.

Buzan, Barry, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* Boulder, CO: Lynne Rienner, 1998.

Carle, Jill. "Climate Change Seen As Top Global Threat." Pew Research Center. Last modified July 14, 2015. http://www.pewglobal.org/2015/07/14/climate-change-seen-as-top-global-threat/.

Chappatte, Patrick. "Someday, People may Provide a new Energy Source." Cartoon. *New York Times*. December 4, 2015. https://www.nytimes.com/2015/12/04/opinion/cartoon-chappatte-on-climate-change.html?rref=collection%2Fbyline%2Fpatrick-chappatte.

Christlich Demokratische Union. “Wir Haben Die Kraft: Gemeinsam Fuer Unser Land. Regierungsprogramm 2009-2013,” 2009. http://www.kas.de/upload/ACDP/CDU/Programme_Bundestag/2009-2013_Regierungsprogramm_Wir-haben-die-Kraft_Gemeinsam-fuer-unser-Land.pdf.

Cote, A. “Agents without Agency: Assessing the Role of the Audience in Securitization Theory.” *Security Dialogue* 47, no. 6 (2016): 541–58.

Cozen, Brian. “Mobilizing Artists: Green Patriot Posters , Visual Metaphors, and Climate Change Activism.” *Environmental Communication: A Journal of Nature and Culture* 7.2 (2013): 297–314.

Crutzen, Paul J. "The “anthropocene”." In *Earth System Science in the Anthropocene*, pp. 13-18. Springer Berlin Heidelberg, 2006.

Dalby, Simon. *Security and Environmental Change*. Malden, Massachusetts: Polity Press, 2009.

Dauber, Cori. "Image as argument: The impact of Mogadishu on US military intervention." *Armed Forces & Society* 27.2 (2001): 205-229.

Democratic National Committee. “2016 Democratic Party Platform,” 2016. http://www.presidency.ucsb.edu/papers_pdf/117717.pdf.

Democratic National Committee. “Democratic Party Platform,” 2008. http://www.presidency.ucsb.edu/ws/?pid=78283.

Deudney, Daniel. “The Case Against Linking Environmental Degradation and National Security.” *Millenium Journal of International Studies* 19 (1990): 461-476.

Devlin, Colleen, and Cullen S. Hendrix. “Trends and Triggers Redux: Climate Change, Rainfall, and Interstate Conflict.” *Political Geography* 43 (2014): 27–39.

DiFrancesco, Darryn Anne, and Nathan Young. “Seeing Climate Change: The Visual Construction of Global Warming in Canadian National Print Media.” *Cultural Geographies* 18.4 (2011): 517–36.

Dodds, Klaus. “Steve Bell’s Eye: Cartoons, Geopolitics and the Visualization of the ‘War on Terror.’” *Security Dialogue* 38.2 (2007): 157–77.

Doyle, Alistair. “Paris climate accord to go into force: but faces test of enforcement.” *Reuters*, October 3, 2016. http://www.reuters.com/article/us-climatechange-paris-idUSKCN1231ON

Editorial Board. “A Prize for Mr. Gore and Science.” *New York Times*, October 10, 2007.

Editorial Board. “Evangelical Environmentalism.” *New York Times*, March 10, 2007.

Fahim, Kareem. “In divided Turkey, president defends victory in referendum granting new powers.” *Washington Post*, April 17, 2017. https://www.washingtonpost.com/world/in-divided-turkey-opposition-groups-challenge-vote-shifting-powers-to-president-erdogan/2017/04/17/afe0d9e4-2354-11e7-a1b3-faff0034e2de_story.html?hpid=hp_hp-top-table-main_turkey-823am%3Ahomepage%2Fstory&utm_term=.4361632b4493

Finnemore, Martha and Kathryn Sikkink. “International Norm Dynamics and Political Change.” *International Organization* 52.4 (1998): 887-917.

Floyd, Rita. “Can Securitization Theory Be Used in Normative Analysis? Towards a Just Securitization Theory.” *Security Dialogue* 42, no. 4–5 (2011): 427–39.

Floyd, Rita. “Extraordinary or Ordinary Emergency Measures: What, and Who, Defines the ‘Success’ of Securitization?” *Cambridge Review of International Affairs* 29, no. 2 (2016): 677–94.

General Assembly Resolution A/64/350, Climate change and its possible security implications (11 September 2009).

Gleditsch, Nils Petter, and Ragnhild Nordås. “Conflicting Messages? The IPCC on Conflict and Human Security.” *Political Geography* 43 (2014): 82–90.

Hansen, Lene. “Theorizing the Image for Security Studies: Visual Securitization and the Muhammad Cartoon Crisis.” *European Journal of International Relations* 17.1 (2011): 51–74.

Heck, Axel, and Gabi Schlag. “Securitizing Images: The Female Body and the War in Afghanistan.” *European Journal of International Relations* 19.4 (2013): 891–913.

Huysman, Jef. “Revisiting Copenhagen: or, on the Creative Development of a Security Studies Agenda in Europe,” *European Journal of International Relations* 4.4 (1998): 479-505.

Intergovernmental Panel on Climate Change. “Climate Change 2001: Synthesis Report. Summary for Policymakers,” 2001. http://www.grida.no/publications/other/ipcc_tar/?src=/CLIMATE/IPCC_TAR/vol4/english/index.htm.

Intergovernmental Panel on Climate Change. “Climate Change 2014 Synthesis Report Summary Chapter for Policymakers,” 2014.

Kaiser, David and Lee Wasserman. “The Rockefeller Family Fund vs. Exxon.” *New York Review of Books* December 8, 2016.

Kaiser, David and Lee Wasserman. “The Rockefeller Family Fund Takes on ExxonMobil.” *New York Review of Books* December 22, 2016

Keith Johnson, “Obama Says Climate Change is a Security Risk. Why are Republicans Laughing?,” Foreign Policy March 21, 2016. http://foreignpolicy.com/2016/03/21/obama-says-climate-change-is-a-security-risk-why-are-republicans-laughing/.

Krebs, Ronald R. “How Dominant Narratives Rise and Fall: Military Conflict, Politics, and the Cold War Consensus.” *International Organization* 69, no. 4 (2015): 809–45.

Krugman, Paul. “Climate Denial Denial.” *New York Times*, December 4, 2015.

Krugman, Paul. “Fearing Fear Itself.” *New York Times*, November 16, 2015.

Leiserowitz, Anthony, Edward Maibach, Connie Roser-Renouf, Seth Rosenthal, and Matthew Cutler. “Climate Change in the American Mind.” New Haven, CT: Yale Program on Climate Change Communication, 2016.

León, Bienvenido, and Mª Carmen Erviti. “Science in Pictures: Visual Representation of Climate Change in Spain’s Television News.” *Public Understanding of Science* 24.2 (2015): 183–99.

Lucke, Franziskus Von, Zehra Wellmann, and Thomas Diez. “What’s at Stake in Securitising Climate Change? Towards a Differentiated Approach.” *Geopolitics* 45, no. Di (2013): 1–26.

Lupovici, Amir. “The Limits of Securitization Theory: Observational Criticism and the Curious Absence of Israel.” *International Studies Review*, 2014.

Manzo, Kate. “Beyond Polar Bears? Re-Envisioning Climate Change.” *Meteorological Applications* 17.2 (2010): 196–208.

McDonald, Matt. “Discourses of Climate Security.” *Political Geography* 33.1 (2013): 42–51.

Mcdonald, Matt. “The Failed Securitization of Climate Change in Australia.” *Australian Journal of Political Science* 47, no. 4 (2012): 579–92.

McKenna, Maryn. “Why the Menace of Mosquitoes Will Only Get Worse.” *New York Times Magazine*, April 20, 2017. https://www.nytimes.com/2017/04/20/magazine/why-the-menace-of-mosquitoes-will-only-get-worse.html

Methmann, Chris, and Delf Rothe. "Tracing the spectre that haunts Europe: the visual construction of climate-induced migration in the MENA region." *Critical Studies on Security* 2.2 (2014): 162-179.

Mueller, John and Mark G. Stewart. “The Terrorism Delusion.” *International Security* 37.1 (2012): 81-110.

Mueller, John, and Mark G. Stewart. "The terrorism delusion: America's overwrought response to September 11." *International Security* 37.1 (2012): 81-110.

Nicholson-Cole, Sophie A. “Representing Climate Change Futures: A Critique on the Use of Images for Visual Communication.” *Computers, Environment and Urban Systems* 29, no. 3 SPEC. ISS. (2005): 255–73.

Nicholson-Cole, Sophie A. “Representing Climate Change Futures: A Critique on the Use of Images for Visual Communication.” *Computers, Environment and Urban Systems* 29.3 SPEC. ISS. (2005): 255–73.

“Obama says Ebola outbreak a 'global security threat',” BBC, September 17, 2014, http://www.bbc.com/news/world-us-canada-29231400.

O'Neill, Saffron J. "Image Matters: Climate Change Imagery in US, UK and Australian Newspapers." *Geoforum* 49 (2013): 10–19.

O'Neill, Saffron J., and Mike Hulme. "An Iconic Approach for Representing Climate Change." *Global Environmental Change* 19.4 (2009): 402–10.

O'Neill, Saffron J., and Mike Hulme. "An Iconic Approach for Representing Climate Change." *Global Environmental Change* 19.4 (2009): 402–410.

Panke, Diana, and Ulrich Petersohn. "Why international norms disappear sometimes." *European Journal of International Relations* 18.4 (2012): 719-742.

Parenti, Christian. Tropic of chaos: Climate change and the new geography of violence. Nation books, 2012.

Party, New Zealand Labour. "Policy Platform," 2013. https://www.labourparty.org.nz/sites/default/files/New%20Zealand%20%20Labour%20Party%20Policy%20Platform.pdf

"Peoples Climate March Printable Posters," NRDC. March 27, 2017. Accessed April 2017. https://www.nrdc.org/peoples-climate-march-printable-posters.

Rieland, Randy. "How Virtual Reality Can Help Us Feel the Pain of Climate Change." Smithsonian Magazine. October 26, 2016. Accessed April 2017. http://www.smithsonianmag.com/innovation/how-virtual-reality-can-help-us-feel-pain-climate-change-180960918/.

Roe, Paul. "Actor, Audience(s) and Emergency Measures: Securitization and the UK's Decision to Invade Iraq." *Security Dialogue* 39, no. 6 (2008): 615–35.

Roe, Paul. "Is Securitization a ' Negative ' Concept ? Revisiting the Normative Debate over Normal versus Extraordinary Politics." *Security Dialogue* 43, no. 3 (2012): 249–66.

Salehyan, Idean. "Climate Change and Conflict: Making Sense of Disparate Findings." *Political Geography* 43 (2014): 1–5.

Salehyan, Idean. "From Climate Change to Conflict? No Consensus Yet*." *Journal of Peace Research* 45, no. 3 (2008): 315–26.

Salter, Mark B. "When securitization fails: The hard case of counter-terrorism programs." In *Securitization Theory: How security problems emerge and dissolve* edited by Thierry Balzacq, 116-132. New York: Routledge, 2011.

Salter, Mark B. “Securitization and Desecuritization: A Dramaturgical Analysis of the Canadian Air Transport Security Authority.” *Journal of International Relations and Development* 11.4 (2008): 321–49.

Schäfer, Mike S, Jürgen Scheffran, and Logan Penniket. “Securitization of Media Reporting on Climate Change? A Cross-National Analysis in Nine Countries.” *Security Dialogue* 47, no. 1 (2015): 76–96.

Schneider, Birgit. “Climate Model Simulation Visualization from a Visual Studies Perspective.” *Wiley Interdisciplinary Reviews: Climate Change* 3.2 (2012): 185–93.

Scott, Shirley. “Implications of Climate Change for the UN Security Council: Mapping the Range of Potential Policy Responses.” *International Affairs* 91, no. 6 (2015): 1317–33.

Solomon, S., D., M. Qin, Z. Manning, M. Chen, K.B. Marquis, M.Tignor Averyt, Miller HL, et al. “Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.” *New York Cambridge University Press*, 2007, 996.

Stephens, Bret. “A Denier’s Confession.” *Wall Street Journal*, August 28, 2007.

Stokes, Bruce, Richard Wike, and Jill Carle. "Concern About Climate Change and Its Consequences." Pew Research Center. Last modified November 5, 2015. http://www.pewglobal.org/2015/11/05/1-concern-about-climate-change-and-its-consequences/.

Stokes, Bruce, Richard Wike, and Jill Carle. "Global Concern About Climate Change, Broad Support for Limiting Emissions." Pew Research Center. Last modified November 5, 2015. http://www.pewglobal.org/2015/11/05/global-concern-about-climate-change-broad-support-for-limiting-emissions/.

The Australian Greens. “Standing Up for What Matters: The Greens’ Plan for a Better Australia,” 2013. https://manifesto-project.wzb.eu/down/originals/63110_2013.pdf.

Theisen, Ole Magnus, Nils Petter Gleditsch, and Halvard Buhaug. “Is Climate Change a Driver of Armed Conflict?” *Climatic Change* 117.3 (2013): 613–25.

Tickell, Crispin. *Climate Change and World Affairs* Cambridge, MA: Harvard, 1977.

Tuchman Matthews, Jessica. “Redefining Security.” *Foreign Affairs* 68.2 (1989) 162-177.

Ullman, Richard. “Redefining Security.” *International Security* 8.1 (1983) 129-153

Villumsen Berling, T. “Science and Securitization: Objectivation, the Authority of the Speaker and Mobilization of Scientific Facts.” *Security Dialogue* 42, no. 4–5 (2011): 385–97.

Volkens, Andrea, Pola Lehmann, Theres Matthieß, Nicolas Merz, Sven Regel: The Manifesto Data Collection. Manifesto Project. Version 2016b. Berlin: Wissenschaftszentrum Berlin für Sozialforschung (2016).

Vuori, Juha A. “A Timely Prophet? The Doomsday Clock as a Visualization of Securitization Moves with a Global Referent Object.” Security Dialogue 41.3 (2010): 255-277.

Walt, Stephen M. “The Renaissance of Security Studies.” International Studies Quarterly 35.2 (1991): 211-239.

Wike, Richard. "What the world thinks about climate change in 7 charts." Pew Research Center. April 18, 2016. Accessed April 2017. http://www.pewresearch.org/fact-tank/2016/04/18/what-the-world-thinks-about-climate-change-in-7-charts/.

Wilkinson, Claire. "The Copenhagen School on tour in Kyrgyzstan: Is securitization theory useable outside Europe?." *Security Dialogue* 38.1 (2007): 5-25.

Williams, Michael C. “Words, Images, Enemies: Securitization and International Politics.” *International Studies Quarterly* 47.4 (2003): 511-531.

Yoffe, Shim, Aaron T. Wolf, and Mark Giordano. “Conflict and Cooperation Over International Freshwater Resources: Indicators of Basins at Risk.” *Journal of the American Water Resources Association* 39 (2003): 1109–26.