

**CLIMATE CHANGE LITIGATION AND NARRATIVE: HOW TO USE LITIGATION
TO TELL COMPELLING CLIMATE STORIES**

by

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Abstract

There is scientific consensus that anthropogenic climate change is occurring and that it has had and will continue to have profoundly negative social, economic, and environmental consequences. The US government has not taken sufficient action to mitigate the threat of dangerous climate change. Frustrated by the lack of action in the legislative and executive branches, climate advocates have turned to the judicial branch and litigation to advance their cause. Litigation is important not only for its ability to create substantive legal change, but also for its power to generate media coverage and shape public and political discourse.

There is growing recognition of the important contributions psychology can make to the study and practice of law. Research in psychology helps illuminate why the US public has had trouble engaging with the science of climate change, understanding the risks posed by climate change, and feeling motivated to take corrective action. Research also shows that how a public health issue is framed powerfully shapes the public debate and policy prescriptions for that issue. This thesis examines how climate advocates can construct their litigation messaging in light of insights from psychological and framing theories to most effectively advance the climate movement in the US.

I chose to analyze three climate change litigation strategies that might present an opportunity of overcoming the public's psychological hurdles to engaging with climate change and offer a narrative on climate change that would resonate with the public. In conducting my analysis, I found that, if used effectively, the medium of litigation offers a unique opportunity to reframe climate change and overcome the public's cognitive hurdles to perceiving the true dangers of climate change. The structure of litigation, which requires plaintiffs to trace their

injuries—including economic, social, and health-related injuries—to the actions of defendants, allows climate advocates to leverage insights from framing and psychology to make their climate change narratives as salient as possible.

Lay Summary

Scientists agree that humans are causing dangerous climate change. Yet, the public has had trouble engaging with the science of climate change, understanding its true threat, and feeling motivated to take corrective action.

One of the most powerful tools climate advocates have at their disposal is filing lawsuits against governments and private parties. Litigation can generate media coverage and shape public discourse. This is the focus of my research—how can climate litigants draw on psychology and framing research to more effectively shape public discourse around climate change?

I first discuss important insights from framing and psychological research. These insights help explain the cognitive hurdles keeping the public from understanding and addressing the risks posed by climate change and how to overcome such hurdles. I then analyze three climate change litigation strategies in light of these insights to understand how climate litigants can most effectively communicate to the US public.

Preface

This dissertation is original, unpublished, independent work by the author, Grace Nosek.

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List of Abbreviations

EPA	Environmental Protection Agency
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
OIRA	Office of Information and Regulatory Affairs
WCEL	West Coast Environmental Law

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Chapter 1: Introduction

1.1 Overview

The Intergovernmental Panel on Climate Change (the “IPCC”) released its Fifth Assessment Report in 2014 finding that “[w]arming of the climate system is unequivocal” and that “[h]uman influence on the climate system is clear.”¹ The IPCC concluded that “[c]ontinued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems.”² Such warming disproportionately impacts those living in poverty.³ According to the World Health Organization, climate change already causes 400,000 deaths per year.⁴ The Obama White House released a report finding that “[c]limate change is an urgent and growing threat to [America’s] national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources like food and water.”⁵

The human health, economic, national security, and environmental consequences of continued climate change are immense. Yet in its Fifth Assessment Report, the IPCC emphasizes that “we have the means to limit climate change and its risks, with many solutions that allow for

¹ The Intergovernmental Panel on Climate Change, “Climate Change 2014 Synthesis Report Summary for Policymakers” (2014) at 2, online: <https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf> accessed 29 August 2017 [IPCC 2014 Report Summary].

² *Ibid* at 8.

³ *Ibid* at 31.

⁴ World Health Organization, “Did You Know? By Taking Action on Climate Change You are Improving Your Health,” online: World Health Organization <<http://www.who.int/globalchange/publications/didyouknow-general-public.pdf?ua=1>> accessed 29 August 2017.

⁵ The White House, “Findings from Select Federal Reports: The National Security Implications of a Changing Climate” (2015) at 2, online: The Whitehouse <https://obamawhitehouse.archives.gov/sites/default/files/docs/National_Security_Implications_of_Changing_Climate_Final_051915.pdf> accessed 29 August 2017.

continued economic and human development.”⁶ One such example is the ability to replace carbon-intensive fossil fuels with renewable energy sources. Scientists have demonstrated the economic and technological feasibility of supplying one hundred percent of energy end uses in the US through wind, water, and solar energy in the near future.⁷ Their results indicate “that low-cost, reliable 100% [wind, water, solar] systems should work many places worldwide.”⁸ Thus the scientific and technological means exist to mitigate the profound consequences and risks of climate change. The larger barriers to action are social and political.

Although the means to limit risks from climate change exist, there is a closing window for their implementation. The IPCC warns that “[d]elaying global mitigation actions may reduce options for climate-resilient pathways and adaptation in the future. Opportunities to take advantage of positive synergies between adaptation and mitigation may decrease with time, particularly if limits to adaptation are exceeded.”⁹ The Australian Climate Commission has called 2011-2020 the “critical decade” to address and mitigate the risks of climate change.¹⁰

Given the magnitude and scope of the risk and the urgency of action, many see national and international government regulation as critical to addressing climate change. Yet national and international regulation has not succeeded at limiting greenhouse gas (“GHG”) emissions to

⁶ The Intergovernmental Panel on Climate Change, “Climate Change 2014 Synthesis Report” (2015) at v, online: <https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf> accessed 29 August 2017.

⁷ Mark Z. Jacobson et al, “Low-cost solution to the grid reliability problem with 100% penetration of intermittent wind, water, and solar for all purposes” (2015) 112:49 PNAS 15060 at 15060.

⁸ *Ibid.*

⁹ IPCC 2014 Report Summary, *supra* note 1 at 31.

¹⁰ Climate Commission, “The Critical Decade 2013: Climate Change Science, Risks, and Responses” (2013) at 4, online: <<http://www.climatecouncil.org.au/uploads/b7e53b20a7d6573e1ab269d36bb9b07c.pdf>> accessed 29 August 2017.

the levels climate scientists deem necessary.¹¹ Non-profits, government officials, and concerned citizens have used climate change litigation as one strategy to fill the gaps left by insufficient national and international regulation efforts. My thesis focuses on this strategy, analyzing how litigation can most effectively advance the goals of climate mitigation and adaptation. My research focuses on the US, which scholars have called the “epicenter” of climate change litigation.¹²

The prospect of federal climate change regulation in the US has grown dimmer with the results of the 2016 election. President Trump and several key members of his administration have expressed doubt about the reality of human-caused climate change.¹³ Most recently, President Trump announced his intention to withdraw the US from the Paris Agreement on climate change.¹⁴ Thus climate change litigation is likely to play an even more important role in the US in coming years.

Climate change litigation is important not only for its potential to address regulatory gaps, but also for its ability to influence public debate and social norms. Scholars have documented the roles climate change litigation has played in shaping social norms, including “(1) making the political culture and public debate more climate-informed; (2) supporting and galvanizing grassroots climate campaigns; and (3) translating abstract scientific concepts into

¹¹ Jacqueline Peel & Hari M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge: Cambridge University Press, 2015) at 52.

¹² *Ibid* at 16.

¹³ Alexandra Wilts, “Trump’s top environment official refuses to say if President believes in climate change,” *The Independent* (2 June 2017), online: <<http://www.independent.co.uk/news/world/americas/us-politics/trump-climate-change-paris-agreement-scott-pruitt-epa-refuses-answer-president-believes-latest-a7770291.html>> accessed 29 August 2017.

¹⁴ Statement of President Donald Trump, (1 June 2017), as posted by The White House, Office of the Press Secretary, online: The Whitehouse <<https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord>> accessed 29 August 2017 [Trump Paris Agreement].

tangible impacts that the general public can understand and relate to better.”¹⁵ Michael McCann’s work has detailed how litigation, even if unsuccessful, can advance social movements.¹⁶ Litigation can also garner media attention, which is important in shaping public perceptions of climate change. Scholars have found that media coverage and mobilization by political elites and advocacy organizations are significant drivers of the American public’s concern over climate change.¹⁷

Many propose that an increase in the American public’s perception of the threat of climate change is crucial to government and private action on the issue.¹⁸ The American public’s perception of climate change and its attendant risks has fluctuated widely over the last several decades, but climate change has never been a policy priority for the public.¹⁹ In a 2008 poll, only one percent of respondents thought climate change and the environment should be President Obama’s top priority.²⁰ In a 2014 poll by the Pew Research Center, respondents ranked climate change second to last out of a list of twenty priorities for presidential and congressional attention.²¹ Many scientists and advocates believed that the key to increasing public concern over climate change was more and better news coverage on the science of climate change.²² But that theory has been challenged in recent years.²³ If the issue is not one of scientific literacy, what are the barriers to communicating climate change to the public? Why do so few Americans still

¹⁵ Peel & Osofsky, *supra* note 11 at 224.

¹⁶ Michael W. McCann, *Rights at Work* (Chicago: The University of Chicago Press, 1994).

¹⁷ Robert J. Brulle, Jason Carmichael & J. Craig Jenkins, “Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the U.S., 2002-2010” (2012) 114:2 *Climactic Change* 169 at 182.

¹⁸ See e.g. *ibid* at 170.

¹⁹ *Ibid*.

²⁰ Matthew C. Nisbet, “Communicating Climate Change: Why Frames Matter for Public Engagement” (2009) 51:2 *Environment: Science and Policy for Sustainable Development* 12 at 14.

²¹ Hari M. Osofsky & Jacqueline Peel, “Energy Partisanship” (2016) 65 *Emory Law Journal* 695 at 708.

²² Nisbet, *supra* note 20 at 14.

²³ Nisbet, *supra* note 20 at 14-22; Osofsky & Peel, *supra* note 21 at 700.

believe in and prioritize climate change? An emerging body of psychological research has identified cognitive barriers to fully understanding and accepting the threat of climate change. One line of research looks at cognitive barriers to addressing collective action problems, of which climate change is a prime example. Others explore emotion, ideology, partisanship, and risk perception. Framing theory has also offered insight into what frames might galvanize public interest and action on climate change.²⁴

Litigation, already an important strategy to address inadequate climate mitigation efforts by America's federal government, is poised to take an even more important role in coming years. Given litigation's potential to fill regulatory gaps and to shape social norms, how can climate change litigants leverage the emerging body of psychological research and framing theory to most effectively advance the climate movement in the US?

1.2 Approach and Outline of Thesis

There is growing recognition of the critical contributions psychology can make to the study and practice of law.²⁵ There is also emerging research that how a public health issue is framed powerfully shapes the public debate and policy prescriptions for that issue.²⁶ Scholars and policymakers are beginning to turn to psychological research and framing theory in an effort to overcome the potent legal and political roadblocks to addressing climate change in the US. Hari Osofsky and Jacqueline Peel's 2016 article, "Energy Partisanship," is an important example of scholars drawing on emerging research in psychology to pursue more effective climate

²⁴ See e.g. Nisbet, *supra* note 20.

²⁵ Harvard Law Today, "The connection between law and mind sciences: A Q&A with Jon Hanson," (13 March 2012), online: <<https://today.law.harvard.edu/the-connection-between-law-and-mind-sciences-a-qa-with-jon-hanson/>> accessed 29 August 2017.

²⁶ See e.g. Kelly D. Brownell & Kenneth E. Warner, "The perils of ignoring history: Big Tobacco played dirty and millions died. How similar is Big Food?" (2009) 87:1 Milbank Quarterly 259.

mitigation and adaptation policies. Yet, there is little comprehensive analysis of how emerging research in psychology might be applied to climate change litigation in the US. My thesis seeks to address that gap, by exploring how pro-regulatory climate litigants might harness framing theory and psychological research to most effectively advance their cause both inside and outside of the courtroom.

I recognize, of course, that there are limitations to how much climate change litigation can advance the climate movement without corresponding executive and legislative action or public outcry. For example, scholars have noted that in the US “many key stakeholders have entrenched views on climate change, which litigation is unlikely to alter significantly.”²⁷ However, as discussed previously, climate change litigation remains an important tool whose role is likely to grow in the US in coming years. My thesis seeks to understand how climate litigation can draw on insights from other fields to be as effective as possible at addressing the problem of climate change.

My thesis focuses on litigation in the US, but includes several comparative pieces, and can be useful to those studying and initiating climate change litigation in other countries. The thesis also draws on comparisons to other public health framing strategies within the US, including the framing of smoking and obesity. Both offer important insights into how parties have utilized framing theory and psychological insights to support or stymie litigation and regulation.

To understand how insights from psychological and framing theories can be leveraged in climate change litigation, it is necessary to understand those insights. Chapter three of my thesis

²⁷ Peel & Osofsky, *supra* note 11 at 223.

will provide an overview of the key canons in climate psychology, including research on cognitive hurdles to addressing collective action problems and the features of laypeople's risk assessment. It will also discuss how to activate moral intuition and empower the public on climate change. I will highlight emerging research and points of divergence in the theory. Chapter four of my thesis will analyze the importance of framing to climate change communications. Framing builds off of insights from psychology, including insights discussed in chapter three, as well as work in sociology, anthropology, and political communications.²⁸ I will analyze how the framing of climate change has profoundly impacted peoples' beliefs about who should be responsible for its impacts, and whether action should be taken to mitigate and prevent its potential consequences. The chapter will also draw comparisons to two other public health issues, smoking and obesity, to demonstrate how important framing is to galvanizing public and government action. The insights gleaned from chapters three and four will be used in chapter five to analyze the pros and cons of various climate change litigation strategies. I will use three contemporary, high-profile climate change litigation strategies as case studies to understand how pro-regulatory climate lawsuits are and are not leveraging insights from other fields to deliver the most potent message in the courtroom and in the public eye.

I chose to analyze three climate change litigation strategies that I thought might present an opportunity of overcoming the public's psychological hurdles to engaging with climate change and offer a narrative on climate change that would resonate with the public. In conducting my analysis, I found that, if used effectively, the medium of litigation offers a unique opportunity to reframe climate change and overcome the public's cognitive hurdles to perceiving

²⁸ Nisbet, *supra* note 20 at 15-16.

the true dangers of climate change. Emphasizing the *current* economic, social, and public health consequences of climate change, as well as the imminence of more profound consequences can make the risks more salient to the public. Activating moral intuition on climate change, by describing it as the consequence of the intentional actions of certain actors, can be a highly motivating cue for corrective action. Framing climate change as a risk intentionally imposed on innocent victims is also a motivating narrative. The structure of litigation, which requires plaintiffs to trace their injuries—including economic, social, and health-related injuries—to the actions of defendants, allows climate advocates to leverage these insights from framing and psychology to make their climate change narratives as salient as possible. The climate change litigation campaigns analyzed in this thesis made their messaging even more salient by, among other things, using community vouchers, having young people as plaintiffs, minimizing scientific and social uncertainty around climate change, and asking the court, and the public, to weigh the relative moral wrongs of civil disobedience and inaction on climate change. Another litigation feature I found to be especially effective at advancing the public discourse on climate change was an effort to involve as many citizens as possible in the initiation of litigation. By facilitating public discussion of the threat of climate change, climate advocates force the public to confront an often invisible collective action problem and seek consensus on who should bear responsibility for addressing the problem.

Chapter 2: Climate Change Litigation

2.1 Introduction

The Guardian's March 2017 article, "How climate change battles are increasingly being fought, and won, in court," details the spate of high-profile climate change lawsuits being filed around the world.²⁹ South Africa's high court just ruled against the government in the country's first ever climate change litigation case.³⁰ Another article from the US proclaims, "Blue states rush to block Trump's emissions rollback." The story details how attorneys general from progressive states are suing to protect Obama-era emissions standards for vehicles.³¹ The case portends the onslaught of climate change litigation likely to follow during the Trump administration.

Climate change litigation has now been initiated in 27 countries, as well as in international tribunals.³² Although the phenomenon of climate change litigation has spread, the US still has the most climate lawsuits of any other country.³³ The Sabin Center for Climate Change Law at Columbia Law School has partnered with Arnold & Porter LLP to track climate

²⁹ Tessa Khan, "How climate change battles are increasingly being fought, and won, in court" *The Guardian* (8 March 2017), online: <https://www.theguardian.com/environment/2017/mar/08/how-climate-change-battles-are-increasingly-being-fought-and-won-in-court?mc_cid=8329a1ae39&mc_eid=0b9f078224> accessed 29 August 2017.

³⁰ *Ibid.*

³¹ Reid Wilson, "Blue states rush to block Trump's emissions rollback," *The Hill* (15 March 2017), online: <<http://thehill.com/homenews/state-watch/324179-blue-states-rush-to-block-trumps-emissions-rollback>> accessed 29 August 2017.

³² Sabin Center for Climate Change Law at Columbia Law School & Arnold & Porter LLP, "Non-U.S. Jurisdiction," online: Columbia University <<http://wordpress2.ei.columbia.edu/climate-change-litigation/non-us-jurisdiction/>> accessed 29 August 2017.

³³ Peel & Osofsky, *supra* note 11 at 2.

litigation in the US through the U.S. Climate Change Litigation database.³⁴ As of the writing of this paper, the U.S. Climate Change Litigation database included more than 700 cases.³⁵

However, the number of climate change litigation cases in the US fluctuates depending on how those counting define climate change litigation.³⁶ Osofsky and Peel use a spectrum of definitions to cover climate change litigation cases, with one end encompassing cases where climate change is key to litigation and the other capturing cases that do not reference climate change but have implications for climate mitigation and adaptation.³⁷ Their definition for core climate change lawsuits is “cases where climate change – whether relating to mitigation or adaptation and brought by pro- or antiregulatory claimants – is a central issue in the litigation. These cases tend to have some element of deliberate framing of the arguments or judgment in climate change terms.”³⁸ I find that definition helpful and will use it in my thesis. All of the climate change litigation case studies examined in my thesis fit comfortably within that definition.

Whatever the definition, there is a huge number of climate change lawsuits in the US. What accounts for this surge of climate change litigation in the US? Scholars have pointed to several factors, including the country’s litigious nature, as well as the federal government’s history of failure to address climate change.³⁹ This history includes the US’s “failure to ratify the Kyoto Protocol and to enact comprehensive national climate legislation.”⁴⁰ These failures have a significant impact on global climate change. The US produces fourteen percent of global carbon

³⁴ Sabin Center for Climate Change Law at Columbia Law School & Arnold & Porter LLP, “U.S. Climate Change Litigation database: About,” online: Columbia University <<http://wordpress2.ei.columbia.edu/climate-change-litigation/about/>> accessed 29 August 2017.

³⁵ *Ibid.*

³⁶ Peel & Osofsky, *supra* note 11 at 6-7.

³⁷ *Ibid* at 7-8.

³⁸ *Ibid* at 8-9.

³⁹ *Ibid* at 17.

⁴⁰ *Ibid* at 17.

dioxide emissions, making it the second biggest emitter after China.⁴¹ It also has one of the highest rates of carbon dioxide emissions per capita in the world.⁴² The US's outsized role in contributing to climate change and its failure to create a comprehensive national policy to address climate change have increased the importance of climate change litigation in the country.

2.2 History and Features of Climate Change Litigation in the US

Climate change litigation has a relatively long history in the US. The first climate change case, *City of Los Angeles v. National Highway Transportation Safety Administration (NHTSA)*, was decided in 1990.⁴³ That case, where cities, states, and environmental groups challenged a government agency's failure to undertake an analysis of the climate consequences of one of its actions, has since become a "prototype" for the vast majority of US Climate change litigation brought subsequently.⁴⁴ Seventeen years after that first case, in 2007, the US Supreme Court issued its groundbreaking decision in *Massachusetts v. Environmental Protection Agency*. That decision coincided with an exponential increase in US climate change litigation.⁴⁵ As the number of climate lawsuits in the US ballooned, so did the diversity in claims. Several scholars have worked to categorize these different climate change lawsuits and analyze their varying regulatory

⁴¹ Jos G.J. Olivier et al, PBL Netherlands Environmental Assessment Agency & the European Commission's Joint Research Centre (JRC), "Trends in Global CO₂ emissions: 2016 report" (2016) at 13, online: <http://edgar.jrc.ec.europa.eu/news_docs/jrc-2016-trends-in-global-co2-emissions-2016-report-103425.pdf> accessed 29 August 2017.

⁴² Union of Concerned Scientists, Global Warming Science, "Each Country's Share of CO₂ Emissions," online: Union of Concerned Scientists <http://www.ucsusa.org/global_warming/science_and_impacts/science/each-countrys-share-of-co2.html#.WMhptCMrJ-U> accessed 29 August 2017.

⁴³ Peel & Osofsky, *supra* note 11 at 19.

⁴⁴ *Ibid.*

⁴⁵ Samvel Varvaštian, "Climate Change Litigation, Liability and Global Climate Governance—Can Judicial Policy-making Become a Game-changer" (2016) at 2, online: <http://www.diss.fu-berlin.de/docs/servlets/MCRFileNodeServlet/FUODOCS_derivate_000000006631/Varvastianxclimatexchangexlitigation.pdf> accessed 29 August 2017.

impacts.⁴⁶ The Sabin Center for Climate Change Law’s U.S. Climate Litigation database sorts the claims included in US climate change lawsuits⁴⁷ into the following categories: federal statutory claims, including claims brought under statutes like the Clean Air Act, the National Environmental Policy Act, and the Endangered Species Act; constitutional claims; state law claims; common law claims; public trust claims; claims brought pursuant to securities and financial regulation; claims arising in relation to trade agreements; adaptation claims; and claims related to climate change protesters and scientists.⁴⁸ Federal statutory claims represent nearly fifty-five percent of the claims in the database.⁴⁹ Nearly thirty percent of the claims are categorized as being founded in state law.⁵⁰ The rest of the categorized claims, including Constitutional claims, common law claims, and public trust claims, are comparatively rare.⁵¹ Clearly, climate advocates have many different claims and litigation strategies at their disposal. As will be discussed later in the paper, such a diversity of legal strategies allows climate advocates flexibility in determining how to best leverage psychological and framing research when initiating climate change litigation.

Although there are many different types of climate lawsuits, there are overarching trends in US climate change litigation. More climate lawsuits challenge government action than the conduct of private parties.⁵² The majority of cases focus on mitigation rather than adaptation.⁵³

⁴⁶ Peel & Osofsky, *supra* note 11 at 35.

⁴⁷ A case can appear in more than one category in the database if that case is categorized as bringing more than one type of claim.

⁴⁸ Sabin Center for Climate Change Law at Columbia Law School & Arnold & Porter LLP, “U.S. Climate Change Litigation,” online: Columbia University <<http://wordpress2.ei.columbia.edu/climate-change-litigation/us-climate-change-litigation/>> accessed 29 August 2017.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² Peel & Osofsky, *supra* note 11 at 19-20.

⁵³ *Ibid* at 20.

Legal challenges to coal-fired power plants are the most frequently filed form of climate lawsuits.⁵⁴ It is also important to note that although initially climate change lawsuits were brought largely with a progressive, pro-regulatory agenda, many lawsuits are now filed to block or stall action on climate change mitigation.⁵⁵

A full analysis of the typology of climate change lawsuits in the US is beyond the scope of this thesis. Rather, I want to give a sense of the variety of the potential legal claims available to climate advocates. The choice of whether to bring a claim against the government or a private party or to bring a statutory claim or common law claim obviously shapes the legal arguments available to climate advocates. But those choices also have the potential to influence societal narratives about climate change. As previously noted, climate change litigation can impact public debate and shape social norms. For example, as will be discussed later in the paper, how climate lawsuits frame who should be held accountable for climate change can support narratives that either empower or disempower citizens. Below I will highlight a few key climate change lawsuits in the US and one groundbreaking decision from the Netherlands. These cases shifted the legal landscape, but they also impacted public narratives around climate change.

2.3 Key Climate Change Lawsuits

I will discuss two US cases that have fundamentally shaped the contours of climate change litigation and regulation in the US, *Massachusetts v. Environmental Protection Agency* and *American Electric Power Co. v. Connecticut*. Then, to add a comparative lens, I will discuss *Urgenda Foundation v. The State of the Netherlands*, analyzing how that case has potentially opened new horizons for climate change litigation in the US and abroad. These cases

⁵⁴ *Ibid* at 83.

⁵⁵ *Ibid* at 19-20.

demonstrate how climate change litigation can shape public and political discourse, and inspire litigants in other jurisdictions. They also show the strategy involved in deciding what legal claims to bring, including how some legal claims might have more narrative salience than others. Finally, they underscore the limitations of the ability of climate change litigation alone to advance the climate movement.

2.3.1 *Massachusetts v. Environmental Protection Agency*

The US Supreme Court's 2007 decision in *Massachusetts v. Environmental Protection Agency* ("*Massachusetts v. EPA*") was a groundbreaking victory for climate advocates. For the purposes of this thesis, the case illustrates two key points. First, that litigation can influence the public narrative around climate change. Second, that when executive and legislative action is inadequate, climate advocates can shift branches and use litigation as an effective tool for progress.

In *Massachusetts v. EPA* the US Supreme Court held that the Environmental Protection Agency (the "EPA") has legal authority under the Clean Air Act to regulate carbon dioxide and other GHGs as air pollutants, despite the EPA's contention to the contrary.⁵⁶ The legality of regulating GHGs as pollutants under the Clean Air Act had been in dispute for almost a decade when the case was decided in 2007.⁵⁷ Spurred by a 1998 legal opinion from Jonathan Cannon, EPA General Counsel in the Clinton administration, environmental groups filed a rulemaking petition with the EPA in 1999 requesting that the Agency regulate GHG emissions specifically

⁵⁶ Jonathan Z. Cannon, "The Significance of *Massachusetts v. EPA*" (2007) 93 Va. L. Rev. In Brief 53 at 54.

⁵⁷ *Ibid* at 53.

from new motor vehicles under a provision of the Clean Air Act.⁵⁸ In 2003, the EPA rejected the groups' petition, citing two key justifications. Jonathan Zasloff describes the justifications:

First, reversing previous EPA legal opinions, the agency stated that it lacked authority under the Clean Air Act to regulate carbon dioxide because that substance is not a "pollutant" within the meaning of the act. Second, the agency argued that the president's voluntary approach to the climate change problem constituted a more effective means of reducing greenhouse gas emissions, and that it was unwise to regulate such emissions unilaterally, without any guarantee that nations such as China and India would follow suit.⁵⁹

After their petition was rejected, the petitioner environmental organizations appealed to the District of Columbia Circuit; twelve states—including Massachusetts—and four local governments intervened to challenge the EPA's decision.⁶⁰ When the District of Columbia Circuit Court upheld the EPA's actions, the US Supreme Court agreed to review that decision.⁶¹ In a win for climate advocates, the Supreme Court held that carbon dioxide and other GHG emissions do qualify as air pollutants under the Clean Air Act and thus the EPA has authority to regulate them.⁶²

Jonathan Z. Cannon describes the decision in *Massachusetts V. EPA* as "an enormous, if narrow, victory for environmentalists."⁶³ Expanding on that point, Jody Freeman and Adrian Vermule write that "the case is considered to be a huge victory, even though the 'victory' amounted to sending the threshold endangerment decision back to EPA. At a political level, the case has enormous symbolic value."⁶⁴ Scholars agree that although the holding in *Massachusetts*

⁵⁸ *Ibid* at 53-54.

⁵⁹ Jonathan Zasloff, "Massachusetts v. Environmental Protection Agency" (2008) 102 Am. J. Int'l L. 134 at 135.

⁶⁰ *Ibid*.

⁶¹ *Ibid*.

⁶² *Ibid* at 136.

⁶³ Cannon, *supra* note 56 at 53.

⁶⁴ Jody Freeman & Adrian Vermule, "Massachusetts v EPA: From Politics to Expertise" (2007) 2007:1 Supreme Court Rev. 51 at 107-08.

v. EPA is narrow, it has had a profound impact on the social and political discourse around climate change in the US. Why was the decision seen as such a symbolic victory? For one, the EPA had pointed to scientific uncertainty as a key reason why it would not be “effective or appropriate” to regulate GHG emissions from motor vehicles.⁶⁵ Yet the first two sentences of Justice Stevens’ opinion for the Supreme Court emphatically support scientific certainty on climate change: “A well-documented rise in global temperatures has coincided with a significant increase in the concentration of carbon dioxide in the atmosphere. Respected scientists believe the two trends are related.”⁶⁶ Analyzing the significance of those sentences and the following initial paragraphs of the opinion, Cannon writes: “If we assume that the Court uses the first page of an opinion to tell us what is most important about the case, the most important thing in this case is that anthropogenic climate change is real and very serious.”⁶⁷ Cannon goes so far as to suggest that the Court’s decision underscoring the science and the threat of climate change is the closest the environmental movement will get to having a touchstone case like *Brown v. Board of Education*.⁶⁸

Another way *Massachusetts v. EPA* influenced the public and political discourse around climate change was by supporting congressional momentum to implement federal climate change regulation.⁶⁹ Freeman and Vermule write that “[f]rom the perspective of the groups demanding federal regulation, [the decision in *Massachusetts v. EPA*] communicated to the public something on the order of: even the Supreme Court thinks something must be done.”⁷⁰ In

⁶⁵ Cannon, *supra* note 56 at 54.

⁶⁶ *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 at 497 (2007).

⁶⁷ Cannon, *supra* note 56 at 56.

⁶⁸ *Ibid* at 62.

⁶⁹ Freeman & Vermule, *supra* note 64 at 108.

⁷⁰ *Ibid*.

2009, federal climate change legislation, the Waxman-Markey Bill, was passed in the House of Representatives before being rejected by the Senate.⁷¹ Although ultimately unsuccessful, the Bill was the closest the US has come to passing federal climate change legislation. Judicial victories in climate litigation cases and their symbolic political and social value can spur climate action in other branches.

The decision in *Massachusetts v. EPA* telegraphed key environmental values to a legal, political, and societal audience. Cannon writes that the decision “reflects sympathy with environmentalist beliefs and values to an extent rarely, if ever, seen in the Court's environmental cases.”⁷² He posits that “[t]his environmentalist worldview has implications for law. It assumes serious secondary effects or externalities from environmental disturbances, even though those effects may be uncertain or difficult to measure, and thus supports measures to control those externalities.”⁷³ As evidence of the Court’s sympathy for environmental worldviews Cannon points to several things, including the Court’s determination of whether Massachusetts had standing. The Court analyzes standing under a three-part test: plaintiffs must show injury, causation, and redressability.⁷⁴ In assessing the causation prong of standing, the Court accepted a long and tenuous causal chain. Cannon describes the opinion’s causal chain as follows:

Domestic motor vehicles emit greenhouse gases. Increased world greenhouse gas emissions have led to a heightened greenhouse effect, which has led to a global temperature rise, which has led to sea level rise, which has led to loss of Massachusetts' coastline. EPA's failure to regulate greenhouse gas emissions from automobiles contributes to this loss. A correction of that failure will moderate the loss. Hence injury, causation, and redressability were all satisfied.⁷⁵

⁷¹ Howard A. Latin, “Climate Change Mitigation and Decarbonization” (2014) 25 Vill. Envtl. L.J. 1 at 14.

⁷² Cannon, *supra* note 56 at 55.

⁷³ *Ibid.*

⁷⁴ *Ibid* at 57.

⁷⁵ *Ibid* at 57.

Such analysis by the Court evinces a willingness to accept systemic injuries to support a claim for standing.⁷⁶ This is a crucial holding for pro-regulatory climate litigation because injuries from climate change are almost always the product of complex causal chains and systemic in nature.

Massachusetts v. EPA also demonstrates how shifting advocacy from the legislative and executive branches to the judicial branch can be a winning tactic for climate advocates. The petitioner environmental organizations initially filed their rulemaking petition back in 1999 because they were worried the Senate would not ratify the Kyoto Protocol.⁷⁷ They shifted their focus from the legislative branch to the executive, asking the EPA to regulate GHGs.⁷⁸ When the EPA later rejected the rulemaking petition, asserting that it had no authority to regulate GHGs under the Clean Air Act, the petitioners filed suit, switching their advocacy to the judicial branch. It was in the judicial branch where climate advocates finally succeeded. However, switching branches and winning judicial victories can only get climate advocates so far, as is demonstrated by the political aftermath of *Massachusetts v. EPA*.

After the Supreme Court's groundbreaking 2007 decision, President George W. Bush requested that the EPA and the Department of Transportation implement rules in accordance with the decision.⁷⁹ The agencies swiftly responded to the President's request, writing a set of draft rules to regulate GHG emissions from motor vehicles and transmitting them to the Office of Information and Regulatory Affairs ("OIRA") for regulatory review.⁸⁰ But the regulations never made it out of OIRA during the Bush administration; the Office refused to commence its review

⁷⁶ *Ibid* at 57.

⁷⁷ Zasloff, *supra* note 59 at 134.

⁷⁸ *Ibid*.

⁷⁹ Lisa Heinzerling, "Inside EPA: A Former Insider's Reflections on the Relationship between the Obama EPA and the Obama White House" (2014) 31 Pace Env'tl. L. Rev. 325 at 336.

⁸⁰ *Ibid*.

of the draft rules, evading legally mandated timelines and public disclosure requirements.⁸¹ Lisa Heinzerling, who worked as Senior Climate Policy Counsel to the Administrator of the EPA during the Obama administration, describes the consequences of OIRA's refusal to review the draft regulations:

A presidential promise, months of work, compliance with a Supreme Court ruling - all went out the window with OIRA's simple refusal to be in receiving mode when the agencies sent the package over to OIRA. The endangerment finding and the rules on cars languished at the agencies until the Obama administration came into office.⁸²

This anecdote demonstrates that even when climate change litigation delivers a victory for the climate movement, even when that victory is delivered at the US Supreme Court, it can be undermined by hostile political actors. The opposite is also true. Politicians can use climate change litigation victories as leverage to deliver executive and legislative climate action. As mentioned previously, climate advocates used the momentum from the decision in *Massachusetts v. EPA* to try and pass the Waxman-Markey Bill regulating climate emissions. Additionally, Jody Freeman describes how the Obama administration used the decision as a springboard for climate action.⁸³ Thus, while litigation can be a powerful tool for climate advocacy, its benefits can be either profoundly blunted or augmented by the executive and legislative branches.

2.3.2 *American Electric Power Co. v. Connecticut*

Decided by the US Supreme Court four years after *Massachusetts v. EPA*, in 2011, *American Electric Power Co. v. Connecticut* curtailed US climate change litigation claims in

⁸¹ *Ibid* at 336-37.

⁸² *Ibid* at 337.

⁸³ Jody Freeman, "Climate and Energy Policy in the Obama Administration" (2012) 30 Pace Envtl. L. Rev. 375 at 378.

important ways. At the same time, it reinforced the core holding of *Massachusetts v. EPA*, reiterating that the EPA has the clear authority to regulate GHG emissions under the Clean Air Act. The case demonstrates several salient points for the purposes of this thesis. It shows how climate litigation can be an unwieldy tool to advocate for climate change regulation and legislation, with judicial victories creating unintended legal consequences. It also shows how some climate litigation claims might have more narrative force to influence public opinion than others.

As mentioned previously, climate advocates have many types of claims at their disposal when filing climate change lawsuits in the US. The claims in *Massachusetts v. EPA* were statutory—the petitioners brought suit under the Clean Air Act to force federal government action. In comparison, the claims in *American Electric Power Co. v. Connecticut* were common law public nuisance claims brought against private parties.⁸⁴ Public nuisance claimants must demonstrate “unreasonable interference with a right common to the general public.”⁸⁵ Such claims have long been used against polluters in the US.⁸⁶

In 2004, eight states, New York City, and three non-profits sued five major electric power companies in federal district court.⁸⁷ The Plaintiffs alleged that the utilities’ 650 million tons of annual carbon dioxide emissions and those emissions’ impact on climate change violated “the federal common law of interstate nuisance, or, in the alternative, of state tort law.”⁸⁸ The

⁸⁴ David R. Brody, “American Electric Power Co. v. Connecticut” (2012) 36 Harv. Envtl. L. Rev. 297 at 298.

⁸⁵ Katherine A. Trisolini, “The Sweet Taste of Defeat: *American Electric Power Co v. Connecticut* and Federal Greenhouse Gas Regulation” (2012) 30 UCLA J. Envtl. L. & Pol’y 227 at 228.

⁸⁶ *Ibid.*

⁸⁷ Brody, *supra* note 84 at 297-298.

⁸⁸ *Ibid* at 298.

Plaintiffs' suits were dismissed by the District Court on political question grounds.⁸⁹ The US Supreme Court has described the political question doctrine as "primarily a function of the separation of powers."⁹⁰ It was "designed to restrain the Judiciary from inappropriate interference in the business of the other branches of Government,' where that other branch is better suited to resolve an issue."⁹¹

After appeal, the Court of Appeals for the Second Circuit reversed the District Court, holding that the political question doctrine did not apply and that the Plaintiffs had a federal common law nuisance claim.⁹² A key question in the case was whether the Clean Air Act had displaced nuisance claims under federal common law that involved GHG emissions. In the US, federal common law claims are displaced "when Congress addresses a question previously governed by a decision rested on federal common law."⁹³ The Court of Appeals held that the Clean Air Act did not displace the Plaintiffs' nuisance claims because the EPA had not yet regulated GHG emissions under the Clean Air Act.⁹⁴ The Supreme Court granted certiorari and reversed the Court of Appeals, holding that the Clean Air Act did displace federal common law claims. In its decision, the Supreme Court wrote:

The Court rejects the plaintiffs' argument, and the Second Circuit's holding, that federal common law is not displaced until EPA actually exercises its regulatory authority by setting emissions standards for the defendants' plants. The relevant question for displacement purposes is "whether the field has been occupied, not whether it has been occupied in a particular manner." *Milwaukee II*, 451 U. S., at 324... The critical point is that Congress delegated to EPA the decision whether

⁸⁹ *Ibid* at 298.

⁹⁰ *Baker v Carr*, 369 U.S. 186 at 210 (1962).

⁹¹ *Connecticut v American Electric Power*, 582 F.3d 309 at 321 (2nd Cir. 2009), citing *United States v Munoz-Flores*, 495 U.S. 385 at 394 (1990).

⁹² Brody, *supra* note 84 at 298.

⁹³ *Milwaukee v Illinois*, 451 U.S. 304 at 314 (1981).

⁹⁴ Brody, *supra* note 84 at 298.

and how to regulate carbon dioxide emissions from power plants; the delegation displaces federal common law.⁹⁵

While underscoring its holding in *Massachusetts v. EPA*, that the EPA has clear authority to regulate GHG emissions under the Clean Air Act, the Supreme Court removed an important avenue for pro-regulatory climate change litigation in the US. As Jody Freeman noted, the outcome of *American Electric Power Co. v. Connecticut* flowed naturally from the Supreme Court's holding in *Massachusetts v. EPA*.⁹⁶ This demonstrates the perils of pursuing climate change mitigation through litigation. Frustrated by legislative and executive inaction, climate advocates sued the EPA; eventually, the Supreme Court handed them a narrow legal victory in *Massachusetts v. EPA*. It was an important legal victory, but one that needed friendly political actors to affect real world regulatory change. Because of that legal victory, other climate advocates lost the ability to sue private actors under federal common law. Thus climate change litigation creates real tradeoffs in what, how, and when GHG emissions can be regulated. Unfortunately, because of the piecemeal and individualized nature of climate change lawsuits, there is no overarching authority deciding whether those tradeoffs are worth it. Climate change litigation is often a tool of last resort for environmental advocates and it is an imperfect one.

However, *American Electric Power Co. v. Connecticut* was not a total loss for climate advocates. For one, as discussed, it cemented the holding in *Massachusetts v. EPA* that EPA has authority to regulate GHG emissions under the Clean Air Act. Given the lawsuits that have challenged the EPA's regulation of GHG emissions under the Act and the constant cries that the EPA has exceeded its authority, this was an important signal from the Supreme Court.⁹⁷ For

⁹⁵ *American Electric Power Co. v. Connecticut* 131 S.Ct. 2527 at 2531 (2011).

⁹⁶ Freeman, *supra* note 83 at 376.

⁹⁷ Trisolini, *supra* note 85 at 228-29.

another, the decision did not foreclose climate related nuisance claims under state law.⁹⁸ Finally, the decision put members of Congress skeptical of EPA's authority in a difficult position. If they attempt to pass legislation removing EPA's authority to regulate GHG emissions under the Clean Air Act, "such legislative measures could revive the type of action that [*American Electric Power Co. v. Connecticut*] put to rest."⁹⁹ Because of the way federal common law and statutory authority interact, removing statutory authority to regulate GHGs under the Clean Air Act could restore nuisance claims under federal common law.

A key aim of this thesis is to understand how litigation can influence public discourse around climate change. In analyzing *American Electric Power Co. v. Connecticut* and other suits based in tort, scholars have argued that nuisance claims can be powerful and effective vehicles for communicating the threat of climate change to the public.¹⁰⁰ Katherine A. Trisolini explains why nuisance suits might be more effective at engaging the public on climate change than other types of claims:

Public nuisance suits will be articulated in language that is more familiar to the general public, using such concepts as harm and language of "reasonableness," "rights," "public health" and "long lasting effects" rather than the more abstract and technical language of regulatory standard setting. Indeed, the types of harms alleged by the parties in [*American Electric Power v. Connecticut*]-risks to public lands, infrastructure, and health, as well as habitat destruction on land privately held by land trusts-are relatively easy to envision. The tangible demonstration of harm in public nuisance suits may render the technical agency regulatory process more accessible (and perhaps more interesting) to the general public.¹⁰¹

⁹⁸ *Ibid* at 229.

⁹⁹ *Ibid* at 240.

¹⁰⁰ See e.g. Trisolini, *supra* note 85 at 244; Laura King, "Narrative, Nuisance, and Environmental Law" (2014) 29 J. Env'tl. L. & Litig. 331.

¹⁰¹ Trisolini, *supra* note 85 at 244-45.

Thus tort claims may present a more salient climate change narrative to the public than regulatory claims. Additionally, scholars posit that nuisance claims are more likely to draw the attention of the media and the public than other types of climate claims.¹⁰²

2.3.3 *Urgenda Foundation v. The State of the Netherlands*

In June 2015, the Hague District Court issued its groundbreaking decision in *Urgenda Foundation v. The State of the Netherlands* (“*Urgenda*”).¹⁰³ The Court found that the Dutch government’s GHG emission reduction targets were negligent and unlawful, and ultimately “ordered the Dutch government to limit the joint volume of Dutch annual GHG emissions by at least 25 per cent at the end of 2020 compared to the 1990 level.”¹⁰⁴ As mentioned previously, although the US is considered the epicenter of climate change litigation, high-profile climate lawsuits are being filed, and won, across the globe. Although countries’ legal systems vary widely, requiring climate change claims to be tailored to each unique legal system, climate advocates can and do learn from lawsuits in other jurisdictions. Organizations in other countries have already built off of the legal strategy in *Urgenda* in filing their own climate lawsuits.¹⁰⁵ Thus in understanding how key lawsuits have shaped and can continue to shape climate change litigation in the US, it is helpful to look to groundbreaking decisions in other jurisdictions as well. *Urgenda* demonstrates several significant points, including the importance of strategic thinking in deciding what kind of claims to bring in climate change litigation, how climate advocates can learn from creative strategies in other jurisdictions, and how climate litigation victories can influence public discourse across the globe.

¹⁰² King, *supra* note 100 at 362; Trisolini, *supra* note 85 at 244.

¹⁰³ Roger Cox, “A climate change litigation precedent: *Urgenda Foundation v The State of the Netherlands*” (2016) 34:2 *Journal of Energy and Natural Resources Law* 143, 144.

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid* at 162.

In 2013, the Urgenda Foundation, along with 886 Dutch citizens, sued the Dutch government for failing to sufficiently reduce GHG emissions and mitigate the risks of climate change.¹⁰⁶ The Hague District Court issued its decision in 2015 holding that the Dutch government must implement climate policies to make more drastic reductions to the country's GHG emissions.¹⁰⁷ The Dutch government is currently appealing the decision, although it has announced plans to comply with the Court's ruling by raising its GHG reduction target from seventeen to twenty-five percent.¹⁰⁸ Pointing to the fact that the Court immediately released an English translation of its decision, Roger Cox, the lead counsel for the Urgenda Foundation, posits that the Court recognized the monumental nature of its decision in *Urgenda*.¹⁰⁹ Why was the decision so monumental? In Cox's words:

The ruling marks the first successful climate change action founded in tort law as well as the first time a court has determined the appropriate emissions-reduction target for a developed state, based on the duty of care and regardless of arguments that the solution to the global climate problem does not depend on one country's efforts alone.¹¹⁰

Urgenda was able to make out a successful tort claim against the Dutch government. Cox reveals in his article that it was a very strategic decision to bring a tort claim against the government rather than a private party.¹¹¹ He describes how tort claims against private parties, including US cases like *Native Village of Kivalina v. ExxonMobil Corp.* and *American Electric Power Co. v. Connecticut*, had been unsuccessful.¹¹² On the other hand, when plaintiffs sue the

¹⁰⁶ Jolene Lin, "The First Successful Climate Negligence Case: A Comment on *Urgenda Foundation v. The State of the Netherlands (Ministry of Infrastructure and the Environment)*" at PDF page 5, online:

<<https://hub.hku.hk/bitstream/10722/211522/1/Content.pdf?accept=1>> accessed 29 August 2017.

¹⁰⁷ Cox, *supra* note 103 at 144.

¹⁰⁸ *Ibid* at 161.

¹⁰⁹ *Ibid* at 144.

¹¹⁰ *Ibid* at 144.

¹¹¹ *Ibid* at 144-145.

¹¹² *Ibid* at 145.

government they tend to do so using administrative law, not tort law.¹¹³ In the case of *Urgenda* there was a deliberate decision to move beyond statutory claims when suing the Dutch government so that *Urgenda* could push for more sweeping changes to state climate policies.¹¹⁴

Cox explains why statutory claims were not sufficient in *Urgenda*:

The essence of the climate problem...is precisely the fact that current environmental laws do not provide sufficient protection against the risks of dangerous climate change... In contrast, the open standard in tort law with respect to formulating the duty of care provides many more grounds for [the court to require more stringent greenhouse gas emissions reductions].¹¹⁵

Drawing on examples of climate change litigation from around the world, Cox recommends that tort lawsuits against governments could be successful avenues for other groups interested in pursuing pro-regulatory climate change litigation. He provides several reasons for why this strategy, undertaken in *Urgenda*, might meet with success elsewhere. The first is that:

[i]n contrast to companies, national governments have made quite explicit statements – in the context of the United Nations Framework Convention on Climate Change (UNFCCC) and its annual climate change conferences – regarding the danger of climate change and what should be done about it.¹¹⁶

When governments participate in international climate change agreements and outline national GHG emission reduction targets, they are potentially providing plaintiffs with legal ammunition, especially if plaintiffs ask the court to order countries to implement more stringent emission reduction targets.¹¹⁷ This is exactly what *Urgenda* did. The Foundation highlighted the unanimous agreement at the international climate summits in Copenhagen and Cancun that climate change must be kept below two degrees Celsius, and that to reach such a goal

¹¹³ *Ibid* at 145.

¹¹⁴ *Ibid* at 147.

¹¹⁵ *Ibid* at 147.

¹¹⁶ *Ibid* at 145.

¹¹⁷ *Ibid* at 146.

industrialized nations, or Annex 1 countries, would have to reduce their emissions by twenty-five to forty percent by 2020.¹¹⁸ The Hague District Court accepted Urgenda's arguments, finding that the Netherlands was not achieving the GHG emissions standard necessary for Annex 1 countries to stay within the two degrees Celsius target, and had thus breached its duty of care to mitigate dangerous climate change.¹¹⁹

Cox offers another reason in support of his argument that tort actions against state governments provide an avenue for successful pro-regulatory climate change litigation: state governments have already adopted the IPCC's reports on climate science and the dangers of climate change and thus it would be much harder for governments to disavow those findings in court.¹²⁰

Cox's article on *Urgenda* is a call to arms, a template, for those frustrated by slow action from governments and past failures in the courtroom. It underscores how climate advocates around the world are learning from each other's successes and failures and attempting to craft litigation that is compelling both inside and outside of the courtroom. It also demonstrates how climate change litigation can shape public discourse far outside the country in which it was initiated. Indeed, in its coverage of the *Urgenda* ruling, *The Guardian* described the case as "a landmark ruling expected to cause ripples around the world."¹²¹ Other litigants have already followed the template laid out in *Urgenda*. The climate advocates who initiated *Union of Swiss*

¹¹⁸ *Urgenda Foundation v The State of the Netherlands (Ministry of Infrastructure and the Environment)*, [2015] (Translation of Memorandum of Oral Pleading for Urgenda at para 14), online: <<http://www.urgenda.nl/documents/UrgendaclimatecaseoralpleadingRogerCoxFINAL.pdf>> accessed 29 August 2017.

¹¹⁹ *Urgenda Foundation v. The State of the Netherlands (Ministry of Infrastructure and the Environment)*, C/09/456689/HA ZA 13-1396 (24 June 2015) Hague District Court at para 4.84, 4.86 [*Urgenda*].

¹²⁰ Cox, *supra* note 103 at 145.

¹²¹ Arthur Neslen, "Dutch government ordered to cut carbon emissions in landmark ruling," *The Guardian* (25 June 2015), online: <<https://www.theguardian.com/environment/2015/jun/24/dutch-government-ordered-cut-carbon-emissions-landmark-ruling>> accessed 29 August 2017.

Senior Women for Climate Protection v. Swiss Federal Council in 2016 “make[] constitutional arguments akin to those made in *Urgenda*.”¹²² Another case recently filed in Sweden, *PUSH Sweden, Nature & Youth Sweden, et al. v. Government of Sweden*, draws from the same approach as *Urgenda*, arguing that the government breached its duty of care to the public by not decommissioning coal related infrastructure.¹²³ Our Children’s Trust, a non-profit that has initiated the atmospheric trust litigation being analyzed in chapter five of this thesis, has partnered with the attorneys for *Urgenda*.¹²⁴

Interestingly, to overcome one of its thornier legal hurdles, *Urgenda* relied heavily on the Court of Appeals for the Second Circuit’s decision in *American Electric Power Co. v. Connecticut*. *Urgenda*’s key claim requested an order from the Court requiring the Dutch government to further restrict GHG emissions.¹²⁵ The Dutch government argued that *Urgenda* was effectively requesting political determinations, which fall within the purview of the political process and not the court.¹²⁶ In arguing that its claims were justiciable by the court, *Urgenda* emphasized this line of reasoning from the Second Circuit’s decision:

Certainly, the political implications of any decision involving possible limits on carbon emissions are important in the context of global warming, but not every case with political overtones is non-justiciable. It is error to equate a political question with a political case.¹²⁷

¹²² United Nations Environment Program, “The Status of Climate Change Litigation: A Global Review” (2017) at 17.

¹²³ *Ibid* at 39.

¹²⁴ Our Children’s Trust, “Legal Actions: Global Legal Actions,” online: Our Children’s Trust <<https://www.ourchildrenstrust.org/global-legal-actions/?rq=urgenda>> accessed 29 August 2017.

¹²⁵ *Urgenda*, *supra* note 119 at 4.94.

¹²⁶ *Urgenda Foundation v The State of the Netherlands (Ministry of Infrastructure and the Environment*, [2015] (Translation of Statement of Reply and Amendment of Claim for *Urgenda* at para 595), online: <http://www.urgenda.nl/documents/FINAL_Draft_Translation_-_Statement_of_Reply_case_Urgenda_v_Dutch_State_v.21.05.2015.pdf> accessed 29 August 2017.

¹²⁷ *Urgenda Foundation v The State of the Netherlands (Ministry of Infrastructure and the Environment*, [2015] (Translation of Summons for *Urgenda* at para 411), online: <[28](http://www.urgenda.nl/documents/FINAL-DRAFT-</p></div><div data-bbox=)

Ultimately the Hague District Court held that it could order the requested reduction of GHGs without overstepping the separation of powers in the Netherland's democracy and infringing on the government's role.¹²⁸ Although the Court did not reference the Second Circuit's reasoning, its decision had strong parallels to the Second Circuit's decision, including this section: "The possibility – and in this case even certainty – that the issue is also and mainly the subject of political decision-making is no reason for curbing the judge in his task and authority to settle disputes."¹²⁹

The wider societal impacts of *Urgenda* have been compared to the impacts of tobacco and asbestos litigation.¹³⁰ Roger Cox argues that landmark rulings on the harms of things like tobacco, asbestos, and climate change can shift public perception of those issues and facilitate government regulation.¹³¹ Other scholars and practitioners also contend that climate litigation might be able to precipitate a sea change in the way the public feels about climate change and about who should be held responsible for the consequences of climate change.¹³²

Climate change litigation is expanding both in the US and around the world. The three cases analyzed here demonstrate how climate change litigation can have significant political, regulatory, and social impacts. It may be an unwieldy tool to force climate change regulation, but it looks like it will only become more important as the US federal government rolls back climate

Translation-Summons-in-case-Urgenda-v-Dutch-State-v.25.06.10.pdf> accessed 29 August 2017 [emphasis in original].

¹²⁸ *Urgenda*, *supra* note 119 at 4.102.

¹²⁹ *Urgenda*, *supra* note 119 at 4.98.

¹³⁰ Cox, *supra* note 103 at 161.

¹³¹ *Ibid.*

¹³² See e.g. Union of Concerned Scientists & Climate Accountability Institute, "Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control" (2012), online: <<http://www.ucsusa.org/sites/default/files/attach/2016/04/establishing-accountability-climate-change-damages-lessons-tobacco-control.pdf>> accessed 29 August 2017 [Establishing Accountability].

regulation. Given climate litigation's potential to influence societal and political narratives on climate change, both domestically and globally, it is important to understand what climate litigation narratives might have the most traction with the public. In the next two chapters I will explore the foundations of climate psychology and climate framing to understand how pro-regulatory climate litigants might best leverage their litigation to tell more compelling climate stories both inside and outside of the courtroom.

Chapter 3: Climate Change and Psychology

3.1 Introduction

As previously discussed, the International Panel on Climate Change (the “IPCC”) has found that the Earth’s climate system is undoubtedly warming, that the warming is manmade, and that the consequences of such warming on humanity will be profoundly deleterious.¹³³ A 2016 synthesis review found scientific consensus on anthropogenic climate change to be between ninety and one hundred percent.¹³⁴ Yet, many Americans still do not believe either that climate change is happening or that it is manmade.¹³⁵ In contrast to the IPCC’s report on climate change, most Americans perceive the warming climate as a “relatively distant threat.”¹³⁶ What accounts for this gap between scientific consensus and the US public’s perceptions of the existence and severity of climate change? Researchers in psychology have identified a series of features of human cognition that make it difficult for the public to engage with climate change science and take action on climate change. These features can impede belief in climate change. They can also attenuate the perception of risk and shape how and whether citizens think the US government should address climate change. Given litigation’s role in influencing public discourse on climate change, it is important to understand how pro-regulatory climate litigation can draw on this

¹³³ IPCC 2014 Report Summary, *supra* note 1 at 2, 8.

¹³⁴ John Cook et al, "Consensus on consensus: a synthesis of consensus estimates on human-caused global warming" (2016) 11:4 Environmental Research Letters 1 at 6.

¹³⁵ Anthony Leiserowitz et al, “Climate Change in the American Mind: November 2016” (Yale University and George Mason University. New Haven: Yale Program on Climate Change Communication, 2017) at 3-4, online: <<http://climatecommunication.yale.edu/wp-content/uploads/2017/01/Climate-Change-American-Mind-November-2016.pdf>> accessed 29 August 2017.

¹³⁶ *Ibid* at 3.

research to potentially overcome the public's cognitive hurdles to engaging with climate science and governance.

Interestingly, the IPCC Fifth Assessment Report explicitly acknowledges that individuals have inherent cognitive limitations and biases that can prevent them from making the most societally beneficial decisions on climate change.¹³⁷ The Report discusses the importance of understanding these cognitive biases and framing climate mitigation strategies in such a way as to overcome these cognitive hurdles. Such insights can be used to make the public and decision-makers more receptive to climate policies.¹³⁸

Scholars have found that the US has an unusually high rate of climate skepticism compared to other countries.¹³⁹ They point to several factors that might help explain this skepticism, including more uncontested skeptical coverage of climate change in right-leaning media sources “coupled with a particularly polarized political system and influential fossil fuel industry interests.”¹⁴⁰ Such findings underscore the importance of media narratives of climate change in shaping public perception of the issue. They also underscore how critical it is to draw from psychological research to create more salient narratives on climate change.

In this chapter I will discuss research on several features of human cognition that are posited to influence human perception of and engagement with climate change and climate science. One strand of literature focuses on cognitive hurdles to addressing collective action issues or tragedies of the commons, of which climate change is the most far-reaching and

¹³⁷The Intergovernmental Panel on Climate Change, “Climate Change 2014: Mitigation of Climate Change” (Cambridge: Cambridge University Press, 2014) at 160, online: <https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter2.pdf> accessed 29 August 2017.

¹³⁸ *Ibid.*

¹³⁹ Stuart Capstick et al., “International trends in public perceptions of climate change over the past quarter century” (2014) 6 WIREs Climate Change 35 at 54.

¹⁴⁰ *Ibid.*

complex example. Another strand of literature examines how humans perceive risk, including how culture and emotion impact risk perception. Two other strands focus on how to enhance moral intuition about climate change and how to empower citizens to act on climate change. It is important to note that the cognitive features described in these various literatures overlap and interact in complex ways. I have broken them down into sections for ease of understanding and because the literature has often grouped certain features together, but real life information processing is not so linear. I will also analyze potential strategies to overcome these cognitive hurdles in climate change communications.

3.2 Cognitive Hurdles to Addressing Collective Action Problems

The “tragedy of the commons” refers to the often-intractable problem of managing commonly held resources.¹⁴¹ In his article, “Tragically Difficult: The Obstacles to Governing the Commons,” Barton H. Thompson Jr. explains the tragedy of the commons in the following terms: “When a resource is freely available to everyone in common, everyone has an incentive to take as much of that resources as they want, even though the collective result may be the destruction of the resource itself.”¹⁴² Climate change offers an interesting twist on the tragedy of the commons—users are not removing too much of a resource, they are depositing too much of a waste product, GHG emissions, into the atmosphere.¹⁴³ Thompson describes three cognitive hurdles that make it difficult for humans to address collective action problems like climate change. These three hurdles include the fact that people are wary of accepting current losses in

¹⁴¹ Barton H. Thompson, Jr., “Tragically Difficult: The Obstacles to Governing the Commons” (2000) 30:2 Environmental Law 241 at 242.

¹⁴² *Ibid.*

¹⁴³ *Ibid* at 253.

order to prevent future risks, the social and scientific uncertainty inherent to collective action problems, and the fact that people greatly discount the probability and cost of future losses.¹⁴⁴

3.2.1 Gains Versus Losses

Psychological research demonstrates that whether an act is framed as a gain or a loss makes a significant difference in how people perceive that act. As Thompson explains:

[P]eople are more risk-averse when dealing with gains (they prefer sure payoffs to gambles) and are more willing to take risks when dealing with potential losses (they will risk much to avoid an otherwise sure loss). In evaluating proposed solutions to commons dilemmas, most resource users appear to start with their historic level of resource use and ask how the solution affects that level of use. Thus they see most proposed solutions, such as caps on use, as constituting losses rather than restricted gains. These solutions, in the eyes of the resource users, require the users to give up something that they currently have.¹⁴⁵

Thus, according to this research, entrenched emitters will see any proposed climate change mitigation measures that limit GHG emissions as a loss rather than a restricted gain. If emitters frame the mitigation measure as a loss, they will be motivated to prevent that loss, imperiling the political success of the measure.

3.2.2 Scientific and Social Uncertainty

Thompson discusses a second cognitive hurdle to addressing collective action problems: the problem of scientific and social uncertainty.¹⁴⁶ Collective action problems are often large and complex.¹⁴⁷ Such issues can be dogged by scientific uncertainty about the current and future state of the resource as well as how human action affects the resource. The issues can also engender social uncertainty about the most equitable and appropriate strategies for dividing the burden of

¹⁴⁴ *Ibid* at 241.

¹⁴⁵ *Ibid* at 256.

¹⁴⁶ *Ibid* at 258.

¹⁴⁷ *Ibid* at 241.

protecting the shared resource.¹⁴⁸ Scientific uncertainty about the health of a collective resource can facilitate “wishful thinking.”¹⁴⁹ Experiments suggest that “people use [scientific] uncertainty to willingly fool themselves that the resource is in better shape and under less threat than it is in fact.”¹⁵⁰ Certain features of climate change make it particularly susceptible to scientific uncertainty. Thompson describes climate change as affecting a “hidden resource” because people cannot see climate systems and have few tangible indications of how their actions affect such systems.¹⁵¹ As mentioned above, scientific uncertainty in the US has long plagued climate advocacy. Despite near universal scientific consensus on anthropogenic climate change, a sizeable group of Americans still doubts either that the climate is warming or that the warming is caused by humans.¹⁵²

To address collective action issues, advocates must overcome both scientific and social uncertainty. Not only must people believe that a shared resource is in danger and human actions contribute to that danger, but they must work out how to equitably divide the burden of saving that shared resource. This can be difficult because:

[p]eople contribute in different degrees to the problem, and people benefit to different degrees from a solution. In these settings, there are multiple ways to allocate the burden of reducing resource use and no generally accepted societal norms for how to choose between the various allocations.¹⁵³

Climate change is a prime illustration of a collective action issue that has many possible burden allocation strategies and no societal consensus on the most fair or appropriate way to allocate the burden. One clear example is the fraught international debate over the relative

¹⁴⁸ *Ibid* at 258.

¹⁴⁹ *Ibid* at 258.

¹⁵⁰ *Ibid* at 259.

¹⁵¹ *Ibid* at 258.

¹⁵² Leiserowitz et al, *supra* note 135 at 3-4.

¹⁵³ Thompson, *supra* note 141 at 258.

responsibilities of developed and developing countries to reduce carbon emissions and mitigate climate change. A large block of developing countries has consistently maintained that developed countries must take on the lion's share of emissions reductions, as well as provide assistance for developing countries, because industrialized nations are largely responsible for manmade climate change and they have superior economic resources.¹⁵⁴ Developed countries have been resistant to such arguments, contending that some "developing" countries have become quite wealthy and emit quite a large portion of GHGs.¹⁵⁵ Such disagreement arose once again in 2015 during the negotiation of the Paris Agreement on climate change,¹⁵⁶ underscoring the continuing lack of societal consensus on who should bear the burden of mitigating climate change.

President Trump recently leveraged social uncertainty over burden allocation in his statement announcing the eventual withdrawal of the US from the Paris Agreement. He argued that the Agreement requires the US to make disproportionate GHG emissions reductions and financial sacrifices in comparison to other countries like China and India, saying:

under the agreement, China will be able to increase these emissions by a staggering number of years—13. They can do whatever they want for 13 years. Not us. India makes its participation contingent on receiving billions and billions and billions of dollars in foreign aid from developed countries. There are many other examples. But the bottom line is that the Paris Accord is very unfair, at the highest level, to the United States.¹⁵⁷

¹⁵⁴ Wolfgang Obergassel et al, "Phoenix from the Ashes—An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change" (Wuppertal Institute for Climate, Environment and Energy, 2016) at 8.

¹⁵⁵ *Ibid.*

¹⁵⁶ *Ibid.*

¹⁵⁷ Trump Paris Agreement, *supra* note 14.

President Trump’s statement could be a salient message to some in the US. Researchers have shown that when there are several possible ways to allocate the burden for addressing a collective active issue, “people assume that the [way] that benefits *them* is the fairest.”¹⁵⁸

3.2.3 Intertemporal Tradeoffs: Current Losses Versus Future Losses

Thompson discusses a third and final cognitive hurdle to governing collective action problems—how people make intertemporal tradeoffs. Humans locked in a tragedy of the commons situation “appear to extravagantly discount the future consequences of their current actions.”¹⁵⁹ The result is that individuals are unlikely to take a loss or make a sacrifice in the present to prevent a larger but uncertain loss in the future.¹⁶⁰ Thompson discusses several cognitive features that might account for why individuals heavily discount future consequences in commons dilemmas. He explains that “[d]istant losses... appear to weigh far more heavily in people’s decision making than distant gains. But where the loss is risky and uncertain, people often act as if there’s virtually no future risks to them at all.”¹⁶¹ People believe they can outmaneuver uncertain future risks when they eventually confront them, especially when implementing preventive measures in the present is costly.¹⁶²

3.2.4 Potential Solutions

There are several potential strategies to overcoming the cognitive hurdles preventing people from effectively governing the commons. Thompson describes the three steps that will be key to any solution: persuading people to believe there is a problem, and that the problem

¹⁵⁸ Thompson, *supra* note 141 at 260.

¹⁵⁹ *Ibid* at 262.

¹⁶⁰ *Ibid* at 262.

¹⁶¹ *Ibid* at 264.

¹⁶² *Ibid* at 264.

requires a solution; building consensus around a solution to the collective action problem; and reaching agreement about who should bear the burden of the solution.¹⁶³

In persuading resource users that a collective action problem exists, climate advocates can use at least two tactics—reducing scientific uncertainty and reducing discounting of future events. Thompson suggests that one way to reduce discounting of future risks is to describe the risks in more visceral terms.¹⁶⁴ He writes that such framing “will require us to go beyond data to analogies, to pictures, and to teaching people exactly what it will mean...if global warming modifies disease vectors in North America.”¹⁶⁵ Another strategy is to highlight the current costs of collective action problems like climate change. Such costs accrue long before the collapse of a shared resource.¹⁶⁶ As Thompson notes, “[e]ach of these costs of overuse is definite, rather than uncertain, and immediate, rather than distant.”¹⁶⁷ As will be discussed later in the thesis, there is an interesting overlap between how communicators can structure messages to overcome individual discounting of future risks and how plaintiffs can succeed at making out a case for standing in the US legal system. It is easier for plaintiffs to make out a case of standing when their injuries are seen as more definite and immediate. Thus this psychological finding is particularly relevant in analyzing potentially salient climate change litigation narratives.

Thompson offers several strategies for how to facilitate agreement on a potential framework solution to a collective action problem. One is to communicate that taking no action, or keeping the status quo, is an active choice just like any other choice.¹⁶⁸ This is important

¹⁶³ *Ibid* at 270.

¹⁶⁴ *Ibid* at 274.

¹⁶⁵ *Ibid* at 274.

¹⁶⁶ *Ibid* at 274.

¹⁶⁷ *Ibid* at 275.

¹⁶⁸ *Ibid* at 275.

because “[t]o most people, maintaining the status quo is the presumed natural position against which any other action must be justified.”¹⁶⁹ Thompson also notes that the most successful proffered solutions will account for the business and cultural needs of individuals.¹⁷⁰ They will also maximize individual freedom.¹⁷¹

The final step in any strategy to overcome the cognitive hurdles preventing solutions to tragedies of the commons is reaching agreement on how to divide the burden of addressing the tragedy. Experiments suggest that “[a]s a resource user learns more about others’ perceptions of fairness—and the reasons for those perceptions—the user’s own view of the fairest result grows less biased.”¹⁷²

Thompson notes that “lawsuits and political pressure may be important—even crucial—in encouraging local resource users to discuss the problem they confront and to consider solutions to the problem.”¹⁷³

In sum, there are powerful cognitive hurdles hindering people’s ability to address or even believe in the existence of collective action problems like climate change. They provide important context for why people either find it difficult to believe in anthropogenic climate change or to worry about the future risks of a changing climate. There are several strategies policymakers and communicators can use to overcome these cognitive hurdles in an attempt to reach agreement on solutions to collective action problems. Next, I will discuss several psychological theories on how humans process information and assess risk.

¹⁶⁹ *Ibid* at 275.

¹⁷⁰ *Ibid* at 275.

¹⁷¹ *Ibid* at 276.

¹⁷² *Ibid* at 277.

¹⁷³ *Ibid* at 267.

3.3 Cognition and Risk Assessment

How people engage with the threat of climate change depends in large part on how they assess future risks. Psychologists have long demonstrated that how individuals process information influences how they analyze risks.¹⁷⁴ They have also shown that there is an important divergence in how experts and laypeople analyze environmental risks, which can lead to disputes over whether an environmental risk should be deemed significant.¹⁷⁵ There are several key theories on human cognition that help explain how humans assess risk, and thus how they assess the threat of climate change. These theories examine the roles of emotion, heuristics, and cultural and political worldviews in risk assessment.¹⁷⁶

3.3.1 Heuristics and Information Processing

One of the key theories explaining the gap between how experts and laypeople analyze risk is that laypeople rely heavily on heuristics to process information.¹⁷⁷ Heuristics can be described as judgmental rules or knowledge structures.¹⁷⁸ Serena Chen et al. give the following example of a heuristic: “Consensus opinions are correct.”¹⁷⁹ Psychologists have long posited that humans use two systems to process information: “‘a fast, associative’ one ‘based on low-effort heuristics’, and a ‘slow, rule based’ one that relies on ‘high-effort systemic reasoning.’”¹⁸⁰ Daniel Kahneman describes these two systems as approximating the lay conceptions of intuition

¹⁷⁴ William Boyd, Douglas A. Kysar & Jeffrey J. Rachlinski, “Law, Environment, and the ‘Nondismal’ Social Sciences” (2012) 8 *Annu. Rev. Law Soc. Sci.* 183 at 185.

¹⁷⁵ *Ibid.*

¹⁷⁶ *Ibid* at 185-190.

¹⁷⁷ Dan M. Kahan, “Ideology, motivated reasoning, and cognitive reflection” (2013) 8:4 *Judgment and Decision Making* 407 at 408.

¹⁷⁸ Serena Chen, Kimberly Duckworth & Shelly Chaiken, “Motivated heuristic and systematic processing” (1999) 10:1 *Psychological Inquiry* 44 at 44.

¹⁷⁹ *Ibid.*

¹⁸⁰ Kahan, *supra* note 177 at 408.

and reasoning.¹⁸¹ Psychologists have labeled the heuristic-driven mode of processing System 1, and the more effortful, slower mode of processing System 2.¹⁸² Laypeople often rely on System 1 when processing risk, whereas experts rely on System 2 reasoning to assess societal risks.¹⁸³ As Daniel Kahan notes, this reliance on System 1 processing by laypeople can have significant consequences for public perceptions of climate change risk:

The centrality of visceral, emotion-guided modes of perception can cause laypeople to overestimate the incidence and harm associated with more sensational risks—such as terrorist acts and gun accidents—relative to more remote, less gripping hazards such as climate change and swimming pools.¹⁸⁴

Thus, climate litigants may want to structure their litigation narratives to describe the threat and consequences of climate change in visceral, gripping terms to make those threats more salient to laypeople. I will delve deeper into this analysis in chapter five.

3.3.2 Motivated Reasoning

Another key theory scholars use to explain why laypeople and experts disagree over the significance of the threat of climate change is motivated reasoning. Motivated reasoning is defined as “the tendency of people to conform assessments of information to some goal or end extrinsic to accuracy.”¹⁸⁵ This theory posits that individuals’ desire to maintain their identities in communities unconsciously motivates them to reject empirical data that might threaten those

¹⁸¹ Daniel Kahneman, “Maps of Bounded Rationality: Psychology for Behavioral Economics” (2003) 93:5 *The American Economic Review* 1449 at 1450.

¹⁸² Kahan, *supra* note 177 at 408.

¹⁸³ *Ibid.*

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*

identities.¹⁸⁶ Although it is beyond the scope of this thesis, Chen et al. go into greater detail on the various types and levels of motivations and how they influence information processing.¹⁸⁷

3.3.3 The Interaction of Heuristic-Driven Information Processing and Motivated Reasoning

There is longstanding support in the psychological research for both of the theories described above: heuristic-driven information processing and motivate reasoning.¹⁸⁸ However, there is significant and important scholarly disagreement over how the two theories of information processing interact. There are various terms for the competing theories, but the disagreement can be broadly divided into two theoretical camps. In this thesis I will use the terms cultural cognition and bounded rationality to describe the two theoretical camps. The disagreement is particularly important for climate change communications, and for the purposes of this thesis, because the two theories posit very different societal responses to increasing the public's science literacy. Below, I will highlight both theories and analyze their importance to climate change communications.

3.3.3.1 Bounded Rationality

Both the theories of bounded rationality and cultural cognition attempt to explain how heuristic-driven information processing, motivated reasoning, and ideological persuasions interact to influence societal assessments of risk.¹⁸⁹ The theory of bounded rationality posits that the influence of heuristic-driven information processing is pivotal to explaining the variance in

¹⁸⁶ *Ibid.*

¹⁸⁷ Chen, Duckworth & Chaiken, *supra* note 178.

¹⁸⁸ Kahan, *supra* note 177 at 408.

¹⁸⁹ *Ibid* at 409.

the public's perception of societal risks like climate change,¹⁹⁰ while the cultural cognition theory posits that the influence of ideological and cultural persuasions is key.¹⁹¹ In the bounded rationality account, "public conflict over risk and other policy relevant facts is a consequence of the predominance of heuristic-driven, System 1 information processing, which interferes with the public's understanding of complicated evidence and motivates it to assess evidence consistently with cultural or ideological predispositions."¹⁹² Thus, the theory "treat[s] cultural cognition—the conforming of beliefs to the ones that predominate within one's group—as simply one of the unreliable system 1 heuristics used to compensate for the inability to assess scientific information in a dispassionate, analytical manner."¹⁹³ The key takeaway is that, according to the bounded rationality position, System 1 thinking is the driving force behind the gap between experts' and laypeople's assessment of the risks of climate change.

What do proponents of this account suggest to better the US public's perception of the risks of climate change? Scholars offer several strategies, including promoting "nonpersuasive" climate change communications.¹⁹⁴ Nonpersuasive communication is strictly informational in nature and does not contain hidden policy agendas.¹⁹⁵ Scientists should also protect climate science from false characterizations.¹⁹⁶ They also suggest using different frames for climate change communications, including a risk management frame, where science helps illuminate the

¹⁹⁰ *Ibid* at 408.

¹⁹¹ *Ibid* at 408-409.

¹⁹² *Ibid* at 416.

¹⁹³ Dan M. Kahan et al, "The polarizing impact of science literacy and numeracy on perceived climate change risks" (2012) 2:10 *Nature Climate Change* 732 at 733.

¹⁹⁴ Elke U. Weber & Paul C. Stern, "Public understanding of climate change in the United States" (2011) 66:4 *American Psychologist* 315 at 323.

¹⁹⁵ *Ibid*.

¹⁹⁶ *Ibid*.

range of climate change risks and the consequences of various policy options.¹⁹⁷ I will discuss climate change frames in far more detail in chapter four.

3.3.3.2 Cultural Cognition

The cultural cognition thesis emphasizes the central importance of cultural and ideological worldviews to perceptions of risk, arguing that the motivation to adhere to such worldviews is more influential than heuristic-driven information processing. According to this account, increasing scientific literacy cannot overcome the cognitive biases inherent in cultural and ideological worldviews. Indeed, in contrast to the theory of bounded rationality, the theory of cultural cognition posits that citizens with higher degrees of science literacy and better reasoning abilities will actually be the most polarized in their beliefs about climate change.¹⁹⁸

When applied to public perceptions of environmental risks, the cultural cognition thesis asserts:

that people who subscribe to a hierarchical, individualistic world-view...tend to be skeptical of environmental risks. Such people intuitively perceive that widespread acceptance of such risks would license restrictions on commerce and industry, forms of behavior that hierarchical individualists value. In contrast, people who hold an egalitarian, communitarian worldview...tend to be morally suspicious of commerce and industry, to which they attribute social inequity. They therefore find it congenial to believe those forms of behaviour are dangerous and worthy of restriction.¹⁹⁹

Dan Kahan, one of the biggest proponents of the cultural cognition theory, has offered empirical support for the theory. One experiment found that polarization on climate change *increased* in correlation with increased quantitative analytical ability and scientific literacy.²⁰⁰ How could having stronger analytical abilities and scientific understanding lead some individuals to be less concerned about climate change? Kahan offers the following explanation: “For

¹⁹⁷ *Ibid* at 323-24.

¹⁹⁸ Kahan et al, *supra* note 193 at 733.

¹⁹⁹ *Ibid*.

²⁰⁰ *Ibid*.

ordinary citizens, the reward for acquiring greater scientific knowledge and more reliable technical-reasoning capacities is a greater facility to discover and use—or explain away—evidence relating to their groups’ positions.”²⁰¹ He offers further rationale for the cultural cognition thesis, in real world terms:

A hierarchical individualist who expresses anxiety about climate change might well be shunned by his co-workers at an oil refinery in Oklahoma City. A similar fate will probably befall the egalitarian communitarian English professor who reveals to colleagues in Boston that she thinks the scientific consensus on climate change is a hoax.²⁰²

Thus, at the individual level, it is rational for people to fit scientific evidence into their cultural worldviews. The problem is that on the aggregate such cultural cognition can lead to inaction on serious environmental threats. The danger is compounded when environmental risks are imbued with ideological meaning.²⁰³ Scholars have documented a recent increase in partisan polarization in beliefs about the existence and threat of climate change.²⁰⁴ They have also argued that certain conservative organizations in the US have actively campaigned to make climate change an ideologically partisan issue, writing that “conservative activists have managed to elevate ‘climate change to the status of a litmus test of cultural politics in the U.S., up there with abortion, guns, god, gays, immigration and taxes.’”²⁰⁵

If the cultural cognition theory is correct, then increasing scientific understanding and analytical reasoning in the US will not be sufficient to significantly increase the public’s concern over the threat of climate change. So what can be done? Kahan suggests that the key is creating a

²⁰¹ *Ibid* at 734.

²⁰² *Ibid* at 734.

²⁰³ *Ibid* at 734.

²⁰⁴ Riley E. Dunlap, Aaron M. McCright & Jerrod H. Yarosh, “The Political Divide on Climate Change: Partisan Polarization Widens in the US” (2016) 58:5 *Environment: Science and Policy for Sustainable Development* 4 at 14.

²⁰⁵ *Ibid* at 15.

climate where believing in scientific evidence does not force individuals to depart from their ideological worldviews.²⁰⁶ Specific tactics “include use of culturally diverse communicators, whose affinity with different communities enhances their credibility, and information-framing techniques that invest policy solutions with resonances congenial to diverse groups.”²⁰⁷ What might these information-framing techniques look like? Scholars have suggested that those who subscribe to a hierarchical worldview might be more receptive to information about climate threats if the threats are framed as risks to world order or catalysts for military action.²⁰⁸ They have also suggested that market-based solutions will resonate most deeply with this group.²⁰⁹

Kahan notes that most scientific evidence underlying policy prescriptions, including, for example, the importance of pasteurizing milk, does not have the same ideological polarization as climate science.²¹⁰ Even when such scientific evidence has been polarized, it might be possible to lessen the polarization. Kahan cites the swing in public perception of the dangers of smoking as an example of scientific evidence becoming less ideologically polarizing over time.²¹¹ I will return to the case study of smoking in the US in chapter four to analyze how climate litigants might borrow from the tactics of anti-smoking advocates.

There are several other findings from the psychological literature that are helpful to understanding how climate litigants might tell the most compelling stories both inside and outside of the courtroom. These include the possibility of enhancing moral intuitions about

²⁰⁶ Kahan et al, *supra* note 193 at 734.

²⁰⁷ *Ibid.*

²⁰⁸ Boyd, Kysar & Rachlinski, *supra* note 174 at 192.

²⁰⁹ *Ibid.*

²¹⁰ Kahan, *supra* note 177 at 419.

²¹¹ *Ibid* at 419-20.

climate change and the impact of empowerment on the public's engagement with climate change.

3.4 Moral Judgment

As discussed above, there are many important messages that climate advocates must communicate to the public, sometimes simultaneously. They must continue convincing the public that climate change is real and that the threat is pressing and significant. However, they must also try to engage the public to act on climate change. There is a body of psychological research describing how climate advocates might activate people's moral intuition about climate change and encourage them to act. The research also underscores the particular features of climate change that make this moral activation so difficult. Below I will discuss why moral intuition is important, why climate change has often failed to activate moral intuition, and what strategies might be used to generate such intuition.

There has been an important recent advance in the field of moral psychology, with researchers recognizing “the powerful role that moral intuition, driven by [individuals'] gut instincts, plays in motivating morally relevant action.”²¹² Research has found that those who consider climate change through an ethical lens are more supportive of policies addressing climate change.²¹³ Yet “climate change does not register, emotionally, as a wrong that demands to be righted.”²¹⁴ Scholars believe this failure to register as a wrong may cause people to be more complacent about addressing the threat of climate change.²¹⁵ In their article, “Climate change and moral judgment,” Ezra M. Markowitz and Azim F. Shariff highlight six reasons why climate

²¹² Ezra M. Markowitz & Azim F. Shariff, “Climate change and moral judgment” (2012) 2:4 *Nature Climate Change* 243 at 243.

²¹³ *Ibid.*

²¹⁴ *Ibid.*

²¹⁵ *Ibid.*

change does not provoke strong moral intuition. Some relate to cognitive hurdles previously discussed, including the fact that the uncertainty of climate science creates wishful thinking, the fact that climate threats do not appear as visceral as other threats, partisan views of morality, and the fact that climate threats appear distant in time and space.²¹⁶ I will focus on the remaining two, “the blamelessness of unintentional action,” and “guilty bias.”

3.4.1 Climate Change and Blamelessness

One of the key reasons why climate change does not activate moral intuition in the same way as other issues is that it registers as the unintentional consequence of certain actions rather than a purposeful wrongdoing.²¹⁷ There is research that “that unintentionally caused harms are judged less harshly than equally severe but intentionally caused ones. Recognizing a harmful event as the product of an intentional agent, on the other hand, is a highly motivating cue for corrective action.”²¹⁸ This finding is especially relevant to litigation; because of the adversarial nature of lawsuits and standing requirements, plaintiffs must identify who to blame for a particular action and how that action has harmed them. Thus lawsuits might be particularly well suited to apportioning blame for climate change, thereby motivating the public to support corrective action. In chapter five I will discuss in detail the various ways to frame blame and accountability for climate change.

3.4.2 Guilty Bias

Another cognitive feature preventing climate change from registering as a moral issue is guilty bias. Although, as discussed above, climate change is not viewed as the result of intentional wrongdoing, there is lots of messaging that blames people for lifestyle choices that

²¹⁶ *Ibid* at 244.

²¹⁷ *Ibid* at 244.

²¹⁸ *Ibid* at 244.

contribute to GHG emissions.²¹⁹ Researchers posit that these narratives induce negative emotions like guilt and fear.²²⁰ To avoid these negative emotions, “individuals often engage in biased cognitive processes to minimize perceptions of their own complicity.”²²¹ Additionally, “[t]hese biases are even more likely when individuals and communities feel incapable of meaningfully responding behaviourally.”²²² People evade self-blame by underestimating evidence of their own culpability and questioning the importance of the problem.²²³ The unfortunate result is “that those responsible for the greatest share of harmful effects, whose behavioural changes would be most beneficial, are the people most motivated to deny their complicity and resist change.”²²⁴

3.4.3 Potential Solutions

Markowitz and Shariff offer several strategies for how to overcome these cognitive hurdles and activate people’s moral intuition about climate change. Echoing strategies cited by other scholars, they suggest that communicators frame climate change in terms salient to ideological conservatives. This might include speaking about climate change in religious terms by highlighting the importance of stewardship.²²⁵ They also suggest that

focusing messaging on the burdens that unmitigated climate change will leave on future generations (for example, higher adaptation costs, greater human suffering from disease) rather than on potential benefits (for example, a viable, vibrant planet) may be a simple and easily administrated way to bolster the moral concern of individuals over the impacts of climate change.²²⁶

²¹⁹ *Ibid* at 244.

²²⁰ *Ibid* at 244.

²²¹ *Ibid* at 244.

²²² *Ibid* at 244.

²²³ *Ibid* at 244.

²²⁴ *Ibid* at 244.

²²⁵ *Ibid* at 245.

²²⁶ *Ibid* at 245.

A third suggested communications strategy is to focus on emotional carrots rather than sticks.²²⁷ As discussed previously, using messaging to induce negative emotions, like fear and guilt, about climate change may actually backfire. Markowitz and Shariff underscore the importance of promoting positive emotions, like “hope, pride, and gratitude” to generate enthusiasm for climate mitigation actions.²²⁸ These emotions can prompt both individual and political action on climate change.²²⁹

To overcome the fact that the victims of climate change often appear distant in time and space, Markowitz and Shariff suggest strategies to maximize the public’s ability to identify with climate change victims. They write that “communicators should adopt techniques that increase individuals’ affinity and identification with future generations (for example, focusing specifically on identifiable future others such as one’s children), which ‘can diminish interpersonal distance, decrease social discounting, limit egocentric biases and enhance intergenerational beneficence.’”²³⁰

3.5 Self-Efficacy and Climate Change

Researchers studying reactions to various climate change images found an important tension between how salient the images were and how effective they were at empowering their audience. They found that the images that ranked as most salient, including images of climate impacts like flooding, also undermined feelings of “self-efficacy.”²³¹ Self-efficacy is defined as

²²⁷ *Ibid* at 245.

²²⁸ *Ibid* at 245.

²²⁹ *Ibid* at 245.

²³⁰ *Ibid* at 245.

²³¹ Saffron J. O’Neill et al, “On the use of imagery for climate change engagement” (2013) 23:2 *Global Environmental Change* 413 at 420.

“a sense of being able to do anything about climate change.”²³² Thus, although images of climate impacts and pollution “made climate change seem important, they also distanced and disengaged participants, as they struggled to comprehend how they could be empowered to act on climate change.”²³³ This finding highlights the complexity of climate change messaging. It is difficult to get people to care about climate change and recognize the scope of its threat without making them feel like they are helpless in the face of climate change. Indeed, the researchers found that few images in their study could both make climate change more salient to audiences and make people feel more empowered to address climate change.²³⁴

So what can be done? Researchers suggest that climate communicators should understand this limitation and pick a strategy that facilitates their key message—importance or empowerment.²³⁵ They also found that images centering on “energy futures,” including windmills and electric vehicles, and images highlighting individual choices, like eating less meat, were the most effective at making people feel like they could do something about climate change.²³⁶ Despite their effectiveness, images incorporating energy futures and individual solutions make up less than seven percent of images featured in newspaper articles on climate change.²³⁷

The field of climate psychology is rapidly expanding. Psychological research helps us understand why it has been so difficult to get the public to believe in, care about, and take action on climate change. It also provides important insights into what narratives can help individuals

²³² *Ibid* at 414.

²³³ *Ibid* at 419.

²³⁴ *Ibid* at 420.

²³⁵ *Ibid* at 420.

²³⁶ *Ibid* at 419.

²³⁷ *Ibid* at 420.

engage in the effort to address the threat of climate change. There are several different ways pro-regulatory climate litigants can leverage these findings, including in deciding what kind of claims to bring, in shaping courtroom arguments, and in crafting public relations strategies that will resonate with the public. The next chapter will build off of the research in this chapter to analyze what kind of frames have been used for climate change and what frames might be the most effective.

Chapter 4: Climate Change and Framing

4.1 Introduction

How climate change is framed profoundly affects how the public perceives the phenomenon. Frames “structure for the audience the cause of social problems and prescribe which actors should and should not act to address them.”²³⁸ This chapter builds off of the psychological research discussed in the previous chapter, analyzing how actors can create the most salient messaging on climate change given the cognitive hurdles discussed in the previous chapter. There is some conceptual overlap between theories discussed in this chapter and in the previous chapter, but for ease of reference and analysis, I have separated framing into its own chapter. In this chapter, I will describe what framing is and explain why it is important to climate change communications. To underscore the importance of framing, I will draw parallels to how frames have been used to shape the public discourse around and societal response to two other public health issues—smoking and obesity. Next I will draw from the literature to highlight frames that have frequently been used in the climate change discourse, as well as several frames that scholars think are promising. Finally I will describe a frame that has not, as yet, appeared in the literature—a freedom of speech frame—but which I think is important to understanding climate change communications. This example will help illuminate how frames do not exist in a vacuum: pro-regulatory climate frames will always be countered with frames intended to generate resistance and skepticism to climate science and action.

²³⁸ Lissy C. Friedman et al, “Tobacco Industry Use of Personal Responsibility Rhetoric in Public Relations and Litigation: Disguising Freedom to Blame as Freedom of Choice” (2015) 105:2 *American Journal of Public Health* 250 at 250.

4.2 Framing

Framing, which builds on insights from psychology, anthropology, political communications, and sociology,²³⁹ posits that *how* an issue is presented can profoundly impact how an audience perceives that issue.²⁴⁰ The concept draws on research done by Kahneman and Tversky analyzing “how different presentations of essentially identical decision-making scenarios influence people’s choices and their evaluations of the various options presented to them.”²⁴¹ The theory of framing includes two concepts: one operating at the macro-level, sometimes called a media frame, and one operating at the micro-level, sometimes called an individual frame.²⁴² Robert Entman states that at the core of what some call media framing is selection and salience.²⁴³ He writes that “[t]o frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation.”²⁴⁴ Micro or individual level frames are “mentally stored clusters of ideas that guide individuals’ processing of information.”²⁴⁵ A key insight from framing theory is that communicators can deploy messaging that activates clusters of ideas or frames that already exist for and resonate with their audience.

²³⁹ Nisbet, *supra* note 20 at 15-16.

²⁴⁰ Dietram A. Scheufele & David Tewksbury, “Framing, agenda setting, and priming: The evolution of three media effects models” (2007) 57:1 *Journal of communication* 9 at 11.

²⁴¹ *Ibid.*

²⁴² *Ibid* at 12; Dietram A. Scheufele, “Framing as a theory of media effects” (1999) 49:1 *Journal of communication* 103 at 106.

²⁴³ Robert M. Entman, “Framing: Toward clarification of a fractured paradigm” (1993) 43:4 *Journal of Communication* 51 at 52.

²⁴⁴ *Ibid.*

²⁴⁵ Scheufele, *supra* note 242 at 107, citing Entman, *supra* note 243 at 53.

In understanding why framing is so critical to the public's understanding of and engagement with climate change it is illuminating to examine the importance of framing to the public debates over smoking and obesity in the US. In both case studies, industry members and their political allies used frames to prevent government regulation.

4.3 Framing and Smoking

Scholars have documented how the tobacco industry has used framing to great effect over the last seventy years.²⁴⁶ One striking example of this framing mastery is a 1976 public relations memo created for tobacco company R.J. Reynolds. The memo suggests various narratives or frames the company should use when discussing the regulation of smoking, including the following message: “Increased government participation in our lives causes a loss of personal freedom. There is already too much government interference in our private lives. We don’t need even more government restriction of our proper personal freedoms.”²⁴⁷ In a section discussing smokers’ rights, the memo offers the following frame: “Freedom of choice is an American birthright. Infringement on this right is an injustice.”²⁴⁸ These examples become even more striking when analyzed in conjunction with the psychological research highlighted in chapter three. As previously discussed, there is research showing that many in the US public subscribe to an individualistic, hierarchical worldview that makes them highly skeptical of government regulation of industry.²⁴⁹ The public relations team for R.J. Reynolds recognized the salience of a freedom of choice frame more than forty years ago. The tobacco industry’s use of a freedom of choice frame supported its arguments that smoking was an issue about personal responsibility.

²⁴⁶ Friedman et al, *supra* note 238 at 250.

²⁴⁷ “Issues and Answers” (6 March 1976) RJ Reynolds Records; Minnesota Documents at 11, online: <<https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=pfmf0091>> accessed 29 August 2017.

²⁴⁸ *Ibid* at 14.

²⁴⁹ Kahan et al, *supra* note 193 at 733.

When public health problems are framed in terms of personal responsibility, it signals “that those who suffer the consequences of consuming certain risky products, such as smokers, are to blame for their injuries and that it is not the role of social institutions such as the government to intervene and protect them.”²⁵⁰ Thus, in the public’s mind, the onus for action to reduce smoking is placed on individuals rather than on the government.

Some have argued that this individual responsibility framing was critical to the tobacco industry’s ability to evade legal liability in the first two waves of tobacco litigation.²⁵¹ Another scholar has argued that the key to the anti-tobacco movement’s regulatory victories was the reframing of the debate about whether smoking was an individual problem or a systemic public health issue.²⁵² This reframing was catalyzed by research on the pervasive dangers of second-hand smoke.²⁵³ Such research supported a systemic, public health framing because it demonstrated that “the risks of smoking were acquired *involuntarily* by nonsmokers; potentially extended to *everyone* rather than just to smokers; and arose from a smoke-filled *environment*, not just from private, individual choice.”²⁵⁴ As will be discussed in the next chapter on case studies of topical climate change litigation, some climate advocates are drawing from the anti-tobacco movement’s success in an attempt to reframe the public debate around climate change.

4.4 Framing and Obesity

Framing has also been very important to the policy debate around obesity in the US. Scholars have documented how the processed-food industry borrowed many tactics from the

²⁵⁰ See e.g. Friedman et al, *supra* note 238 at 250.

²⁵¹ See e.g. Friedman et al, *supra* note 238 at 250-51; Jess Alderman & Richard A. Daynard, “Applying Lessons from Tobacco Litigation to Obesity Lawsuits” (2006) 30 *American Journal of Preventive Medicine* 82 at 82-83

²⁵² Regina G. Lawrence, “Framing obesity: The evolution of news discourse on a public health issue” (2004) 9:3 *Harvard International Journal of Press/Politics* 56 at 59.

²⁵³ *Ibid.*

²⁵⁴ *Ibid.*

tobacco industry, including its emphasis on freedom of choice and individual responsibility frames.²⁵⁵ In her article, “Framing obesity: The evolution of news discourse on a public health issue,” Regina Lawrence argues that the policy debate around obesity “will turn precisely on th[e] question of whether the body politic bears some responsibility for the shape of individual American bodies.”²⁵⁶ If obesity is defined as an individual rather than a systemic issue in public discourse, it will undermine the government’s responsibility to address the issue.²⁵⁷ Lawrence underscores time and again the profound importance frames have in shaping the scale and scope of policy interventions in the US. So, what are the specific features of a frame that influence public perceptions of policy responses? Lawrence synthesizes the work of different researchers to suggest four features that are critical to how frames shape the public’s perception of public health risks:

Research by Constance Nathanson identifies three key dimensions of how public health risks are framed that influence public policy responses: whether the health risk is portrayed as “acquired deliberately or involuntarily (and the victim correspondingly as culpable or innocent)”; whether it is portrayed as “universal (putting us all at risk) or as particular (only putting them at risk)”; and whether it is portrayed as “arising from within the individual or from the environment.” A fourth reframing dimension emerges in Nathanson’s research, along with Stone’s work on other public policy debates: Once a health risk is accepted as “real,” whether that danger was knowingly or intentionally created by others is often crucial to assigning blame. The more an issue is framed in terms of involuntary risk, universal risk, environmental risk, and knowingly created risk, the more likely the opinion environment is to be conducive to public policy solutions that burden powerful groups.²⁵⁸

These four features of a public health risk are conducive to creating a compelling climate change narrative. It is easy to see how climate change can be framed as a universal and an

²⁵⁵ Brownell & Warner, *supra* note 26 at 263-265.

²⁵⁶ Lawrence, *supra* note 252 at 57.

²⁵⁷ *Ibid.*

²⁵⁸ *Ibid* at 59 [endnotes omitted].

environmental risk. It is also possible to think of climate frames that would leverage the other two dimensions, involuntary risk and knowingly created risk. Indeed, several of the litigants discussed in the next chapter draw from either one or both of those dimensions in framing the threat of climate change.

4.5 Climate Change Frames

Frames have a structuring effect on social movements. They can act as “a tool to strategically reach out to a broader audience, build coalitions, and shape personal behavior.”²⁵⁹ Many different frames have been used in an attempt to shape public discourse around climate change, including national security, public health, economic, environmental, and moral frames.²⁶⁰ Several of these frames were described in the previous chapter as strategies to overcome cognitive hurdles associated with the public’s perception of climate change. Although I will not examine each of these frames in depth, others focus explicitly on the successes and failures of the myriad climate frames used in the US.²⁶¹ In “Energy Partisanship,” Osofsky and Peel describe the two profoundly conflicting climate change frames that have gotten the most prominence in the US.²⁶² The first frame, often used by Republicans or conservatives, underscores “scientific uncertainty, dire economic consequences associated with climate action, and the unfairness of U.S. citizens being required to take action if other countries such as China and India do not.”²⁶³ The second frame, often used by Democrats and liberals, paints climate

²⁵⁹ Osofsky & Peel, *supra* note 21 at 722.

²⁶⁰ Markowitz & Shariff, *supra* note 212 at 243.

²⁶¹ See e.g. Mauro Bertolotti & Patrizia Catellani, “Effects of message framing in policy communication on climate change” (2014) 44:5 *European Journal of Social Psychology* 474.

²⁶² Osofsky & Peel, *supra* note 21 at 721.

²⁶³ *Ibid.*

change as a calamitous environmental phenomenon.²⁶⁴ These incompatible frames can entrench partisan differences and make it impossible to reach any kind of consensus.

4.5.1 Successful Frames

Osofsky and Peel describe two frames that have the potential to bypass these deeply partisan climate change narratives and build consensus between polarized groups. These frames center on economic opportunity and disaster resilience.²⁶⁵ The US public cares intensely about jobs and the economy.²⁶⁶ Thus it is no surprise that climate change is often framed in economic terms, with both the left and the right making an economic case for or against action on climate change.²⁶⁷ As a counter to the message that climate change action will undermine the American economy, some have stressed the economic opportunities presented by a transition to renewable energy. One example of this framing comes from former EPA Administrator Gina McCarthy, who in a 2014 speech emphasized “climate action could propel economic growth and ‘that U.S. states that are still skeptical, like Arkansas, Louisiana, Oklahoma and Texas, would actually see an annual net economic benefit of up to about \$16 billion dollars.’”²⁶⁸ Osofsky and Peel argue that this economic framing can resonate. After examining several case studies to understand when an economic framing is most effective at winning bipartisan support for transitioning to renewable energy, Osofsky and Peel found three factors that made such framing successful: “First, the economic benefits are real, tangible, and significant. Second, the transitional steps are cost-effective and easy to implement. Third, an established or growing industry sees a profit

²⁶⁴ *Ibid* at 721-22.

²⁶⁵ *Ibid* at 724.

²⁶⁶ *Ibid* at 725.

²⁶⁷ *Ibid* at 726.

²⁶⁸ *Ibid* at 726-27.

opportunity that aligns with goals of the environmental and labor coalitions.”²⁶⁹ A key insight that can be drawn from these findings is that frames do not work in a vacuum. Climate advocates cannot just adopt an economic frame, arguing that climate mitigation actions will be good for the economy, without real world evidence to back up their narrative. Another insight is the importance of broadening the coalition of stakeholders willing to support a particular frame. According to Osofsky and Peel’s third factor, when industry members, environmentalists, and labor organizations all find common ground, an economic framing for renewable energy becomes more effective.

Another frame that might have success at bridging partisan divides over climate change is one centered on disaster resilience. Drawing from the case study of the aftermath of Hurricane Sandy, Osofsky and Peel write that “a key to adaptation planning may be to frame action in terms of disaster resilience and response rather than climate change itself.”²⁷⁰ They argue that disasters can “open windows for policy action—either directly or through forcing litigation—by highlighting the very real and devastating effects on people’s homes, property, lives, and livelihoods that climate change is likely to bring about.”²⁷¹ Another interesting thing about severe weather events is that their occurrence can catalyze the creation of new coalitions. For example, insurance companies have a vested interest in limiting their losses from disasters precipitated by a changing climate.²⁷² As mentioned above, frames appear to be most effective when supported by a broad coalition of stakeholders. How else can climate advocates use frames

²⁶⁹ *Ibid* at 729.

²⁷⁰ *Ibid* at 737.

²⁷¹ *Ibid* at 747.

²⁷² *Ibid* at 787.

most effectively? Below I will discuss several factors that can make new frames of climate change resonate more deeply with audiences.

4.5.2 How Frames Can be Deployed Most Effectively

Employing a different substantive frame than the status quo frame is an important first step in communicating, but there are several factors that make a substantive reframing effort more likely to succeed with the public. One critical aspect to remember is that, as previously discussed, framing operates at both the media level and the individual level. New or different media frames of an issue will only be salient if they are compatible with the public's individual level frames. As Osofsky and Peel explain, "people are only likely to accept an alternative way of framing 'if it is relevant—or applicable—to the audience's preexisting interpretations.'"²⁷³ This is why climate advocates are striving to frame climate change as a national security issue to convince conservative individuals to believe in and care about climate change; it appeals to existing individual frames of the world.

Another factor that can make frames more effective is the style of their deployment. Who communicates a frame and how it is communicated can be as important as the frame itself. Those studying climate change communications "are increasingly finding that factors like whether communicators use a friendly tone, display respect for and openness to different views, and work to establish trust are key to effective communication of climate risks."²⁷⁴ Additionally, researchers are finding that the identity of those communicating climate frames can be deeply significant to the reception of those frames. Research has focused on the importance of "vouchers"—"knowledgeable and trusted members of a person's cultural group who can help to

²⁷³ *Ibid* at 721.

²⁷⁴ *Ibid* at 723.

build acceptance of a particular issue through ‘vouching’ for information and showing how it fits with the group’s pre-existing worldview.”²⁷⁵ In the context of climate change litigation, plaintiffs could serve the role of vouchers communicating a climate change frame to a specific community. The relationship between plaintiffs and framing will be discussed further in the next chapter. The key takeaway here is that there are many factors that can make climate change frames more or less salient to various audiences and that effective climate change communication is deeply nuanced and complex.

Obviously, climate advocates are not the only ones attempting to frame the public’s perception of climate change. Various other powerful groups and institutions are trying to shape the debate around climate change in a way that benefits their own interests. These frames often profoundly conflict with the frames offered by climate advocates. In the following section I will provide an example of one of these emerging climate change frames—freedom of speech.

4.5.3 Freedom of Speech Frame

The previous examples of the public debates over obesity and smoking demonstrate the salience of personal freedom as a message in the US. Both the tobacco and processed-food industries understood that freedom is a deeply compelling preexisting frame for the US public, and they shaped their messaging strategies accordingly. In the climate change context, Exxon Mobil (or “Exxon”) and other political and media actors have also begun using an explicit freedom frame. Below I will describe how climate advocates are attempting to frame the threats of climate change and how Exxon Mobil has responded with its own framing of the public debate.

²⁷⁵ *Ibid* at 714.

In 2015, New York State Attorney General Eric Schneiderman issued a subpoena to Exxon Mobil in relation to an investigation into whether the company had misled the public and its shareholders on the risks of climate change.²⁷⁶ Several other state attorneys general began their own investigations into Exxon Mobil.²⁷⁷ In 2016, a coalition of state attorneys general, calling themselves the “AGs United for Clean Power,” held a press conference touting the various actions they would take to support federal climate mitigation efforts.²⁷⁸ One of the group’s announced legal strategies was to support joint investigations into whether the communications of the fossil fuel industry and industry groups mislead citizens about the risks of climate change.²⁷⁹ A close ally of the AGs United for Clean Power, Former US Vice President Al Gore, framed the group’s tactics in the following terms: “What these attorneys general are doing is extremely important. These brave members of this coalition are doing their job like they did in the tobacco case.”²⁸⁰ Vice President Gore was “comparing fossil fuel companies to the tobacco companies of the 1990s that fell under intense scrutiny over misstatements about cancer and heart disease risks associated with cigarette smoking.”²⁸¹ Several other prominent groups and individuals have attempted to frame the fossil fuel industry’s role in casting doubt on climate science as analogous to the tobacco industry’s collusion and deception about the risks of

²⁷⁶ Bob Simison, “New York Attorney General Subpoenas Exxon on Climate Research,” *Inside Climate News* (5 November 2015), online: <<https://insideclimatenews.org/news/05112015/new-york-attorney-general-eric-schneiderman-subpoena-Exxon-climate-documents>> accessed 29 August 2017.

²⁷⁷ John Schwartz, “Exxon Mobil Fights Back at State Inquiries into Climate Change Research,” *The New York Times* (16 June 2016), online: <<https://www.nytimes.com/2016/06/17/science/exxon-mobil-fights-back-at-state-inquiries-into-climate-change-research.html>> accessed 29 August 2017.

²⁷⁸ The Climate Reality Project, “Al Gore and New York Attorney General Eric Schneiderman Launch AGs United For Clean Power Coalition” (30 March 2016), online: <<https://www.climate realityproject.org/blog/al-gore-and-new-york-attorney-general-eric-schneiderman-launch-ags-united-clean-power-coalition>> accessed 29 August 2017.

²⁷⁹ *Ibid.*

²⁸⁰ *Ibid.*

²⁸¹ *Ibid.*

smoking.²⁸² These include Senator Sheldon Whitehouse, who wrote a 2015 op-ed entitled, “The fossil-fuel industry’s campaign to mislead the American people,” in which he said “[t]he parallels between what the tobacco industry did and what the fossil fuel industry is doing now are striking.”²⁸³

As discussed above, one of the key factors in how the public responds to a public health risk is whether it perceives that risk to be knowingly created. In describing the actions of the fossil fuel industry as analogous to those of the tobacco industry, climate advocates are framing the risks of climate change as being intentionally created by the fossil fuel industry. They are also attempting to focus blame and responsibility for the risks of climate change on the fossil fuel industry. As the examples of the policy discussions around obesity and smoking demonstrated, who is held responsible for a risk is critical to how the government and others will respond to that risk. However, this framing by climate advocates does not exist in a vacuum; Exxon Mobil and other political and media actors are using a competing frame to describe the actions of the AGs United for Clean Power and their allies.

Exxon Mobil and other political and media actors have used a freedom of speech frame to counter the framing by organizations like the AGs United for Clean Power. After the Office of Massachusetts State Attorney General Maura Healey issued a subpoena to Exxon Mobil in April 2016,²⁸⁴ Exxon Mobil sued Attorney General Healey in federal district court in Texas.²⁸⁵ In court

²⁸² See e.g. Establishing Accountability, *supra* note 132; Naomi Oreskes & Erik M. Conway, *Merchants of doubt* (New York: Bloomsbury Press, 2010).

²⁸³ Sheldon Whitehouse, “The fossil-fuel industry’s campaign to mislead the American people,” *The Washington Post* (29 May 2015).

²⁸⁴ The Commonwealth of Massachusetts Office of the Attorney General, Civil Investigative Demand, No. 2016-EPD-36 (19 April 2016), online: <<https://www.documentcloud.org/documents/2862196-Exxon-Subpoena-Massachusetts.html>> accessed 29 August 2017.

documents, Exxon Mobil alleges that Attorney General Maura Healey’s actions infringe on its First Amendment freedom of speech rights and are an “effort to silence, intimidate, and deter those possessing a particular viewpoint from participating in [the climate policy] debate.”²⁸⁶

Exxon uses this narrative framing in other legal documents, website content, press releases, and social media. For example, Exxon Mobil links to articles from its corporate website like one from *The Daily Caller* entitled, “Dangerous Double Standards on Climate Change and Free Speech.”²⁸⁷ Other articles linked to include “Exxon Mobil has a Right to Its Opinion,” and “Consumer Protection: Not a Bully’s Weapon on Free Speech.”²⁸⁸

After the AGs United For Clean Power coalition held its press conference, Exxon issued a press release, saying: “The allegations repeated today are an attempt to limit free speech.”²⁸⁹ Exxon also tweeted: “State AG allegations against @Exxon Mobil are assault on free speech and scientific inquiry.”²⁹⁰ Journalists Paul Barrett and Matthew Philips detailed how Exxon Mobil

²⁸⁵ David Hasemyer, “Exxon Sues a Second Attorney General To Fight Off Climate Fraud Probe” *Inside Climate News* (16 June 2016), online: <<https://insideclimatenews.org/news/16062016/exxon-sues-massachusetts-attorney-general-climate-change-fraud-investigation>> accessed 29 August 2017.

²⁸⁶ *Exxon Mobil Corporation v Maura Tracey Healey* No. 4:16-cv-00469-A, US District Court for the Northern District of Texas Fort Worth Division, 15 June 2016 (Complaint for Declaratory and Injunctive Relief at para 87).

²⁸⁷ ExxonMobil, Climate, ExxonMobil’s perspectives on climate change, “Understanding the #Exxonknew ‘controversy,’” online: ExxonMobil <<http://corporate.ExxonMobil.com/en/current-issues/climate-policy/climate-perspectives/understanding-the-exxonknew-controversy>> accessed 29 August 2017.

²⁸⁸ *Ibid.*

²⁸⁹ ExxonMobil, Perspectives Archive, “Statement by Suzanne McCarron, ExxonMobil Vice President of Public and Government Affairs” (29 March 2016), online: <<http://www.ExxonMobilperspectives.com/2016/03/29/ExxonMobil-responds-to-state-ags/?sf23338395=1>> accessed 29 August 2017.

²⁹⁰ Ben Jervey, “State Investigations Into What Exxon Knew Double, and Exxon Gets Defensive,” *Desmog Blog* (1 April 2016), online: <<https://www.desmogblog.com/2016/04/01/more-state-attorneys-general-investigate-exxon-exxon-gets-defensive>> accessed 29 August 2017.

used the freedom of speech frame to paint itself as a victim and how the news media and then politicians quickly picked up on the frame.²⁹¹ They highlight that:

the Washington Post carried two opinion pieces on the topic: a column by George Will headlined “Scientific Silencers on the Left Are Trying to Shut Down Climate Skepticism” and one by Sam Kazman and Kent Lassman, respectively general counsel and president of the Competitive Enterprise Institute, condemning “the environmental campaign that punishes free speech.” In the following days, dozens of similar broadsides were issued from the Wall Street Journal editorial page, Fox News, the Heritage Foundation, and many others.²⁹²

Politicians also used the freedom of speech frame, labeling the actions of the AGs United for Clean Power and their allies as an attack on free speech. A group of state attorneys general wrote an open letter denouncing the investigations into Exxon Mobil, saying they infringed the freedom of speech rights of climate skeptics.²⁹³ Representative Lamar Smith of Texas, chair of the Committee on Science, Space, and Technology of the United States House of Representatives, wrote to New York Attorney General Eric Schneiderman declaring that the Committee would be conducting oversight of the actions of Schneiderman and the coalition of attorneys general concerned about mitigating climate change.²⁹⁴ In his letter, Representative Smith described the coalition’s actions as “a coordinated attempt to attack the First Amendment

²⁹¹ Paul Barrett & Matthew Philips, “Can Exxon Mobil be Found Liable for Misleading the Public on Climate Change,” *Bloomberg Businessweek* (7 September 2016), online: <<https://www.bloomberg.com/news/articles/2016-09-07/will-exxonmobil-have-to-pay-for-misleading-the-public-on-climate-change>> accessed 29 August 2017.

²⁹² *Ibid.*

²⁹³ Letter from Attorneys General Luther Strange, Alabama; Bill Schuette, Michigan; Ken Paxton, Texas; Craig Richards, Alaska; Doug Peterson, Nebraska; Sean Reyes, Utah; Mark Brnovich, Arizona; Adam Laxalt, Nevada; Brad Schimel, Wisconsin; Leslie Rutledge, Arkansas; Scott Pruitt, Oklahoma; Jeff Landry, Louisiana; Alan Wilson, South Carolina (15 June 2016), online: <<https://assets.documentcloud.org/documents/2862197/AG-Coalition-Resp-Letter-2016-06-15.pdf>> accessed 29 August 2017.

²⁹⁴ Letter from Lamar S. Smith, Chairman of the US House of Representatives Committee on Science, Space, and Technology to New York Attorney General Eric Schneiderman (18 May 2016) at 1, online: <<https://static01.nyt.com/packages/pdf/science/05.18.16SSTLettertoNYAG.PDF>> accessed 29 August 2017.

rights of American citizens and their ability to fund and conduct scientific research free from intimidation and threats of prosecution.”²⁹⁵

Thus, there is evidence that Exxon Mobil, political elites, and members of the media are using a freedom of speech frame to describe investigations into whether or not Exxon Mobil misled the public about the threat of climate change. This media frame can be expected to resonate with the American public, given the salience of individual freedom in the US. The example underscores that any frames climate advocates attempt to deploy to reframe the public discourse around the dangers of climate change will not exist in a vacuum. The AGs United for Clean Power are attempting to reframe the climate change discourse, shifting accountability for the dangers of climate change to industry and arguing that some of those dangers were knowingly created. But that frame has to compete with the profoundly conflicting frame offered by Exxon Mobil and others in politics and the media.

Such conflicting frames parallel the dynamics of litigation, where each side is attempting to tell the most persuasive story, in the courtroom and in the public sphere. In the next chapter I will draw on the insights from framing theory and psychological research to analyze how climate litigants can tell the most compelling story, even in the face of conflicting messaging.

²⁹⁵ *Ibid* at 4.

Chapter 5: Analysis of Topical Climate Change Litigation

5.1 Introduction

As discussed in chapter two, the number of climate change lawsuits in the US has ballooned in the last decade. Those suing to advance climate change regulation and those suing to halt or prevent climate change regulation are both adopting new legal strategies. Although it is beyond the scope of this thesis to document all of the new legal strategies being employed in these lawsuits, below I will describe and analyze three topical legal strategies being used by climate advocates. I will focus on the strategies of pro-regulatory climate litigants, although I will discuss how opposing groups have responded to those litigants. I have chosen to analyze litigation strategies that I think present an opportunity of overcoming the public's psychological hurdles to engaging with climate change and offer a narrative on climate change that will resonate with the public. These three litigation strategies include Climate Law in our Hands, atmospheric trust litigation initiated by Our Children's Trust, and the climate necessity defense.

5.2 Climate Law in our Hands

Climate Law in our Hands is a campaign initiated by West Coast Environmental Law, an environmental law organization operating out of Vancouver, British Columbia.²⁹⁶ I have described it as a campaign rather than a lawsuit because, as of the writing of this thesis, it has not yet developed into a lawsuit. Climate Law in our Hands focuses on fostering a social movement and community discussion around the fossil fuel industry's responsibility for the costs of climate change, but it also explicitly includes the potential for climate change litigation as one end goal

²⁹⁶ West Coast Environmental Law, About, online: <<http://www.climatelawinourhands.org/wcel>> accessed 29 August 2017.

of the social movement.²⁹⁷ West Coast Environmental Law (WCEL) outlines three steps in its campaign, although the steps do not necessarily have to be taken in order. The first step, entitled, “Demand Accountability,” is for communities to send a letter or invoice to fossil fuel companies detailing the costs they will sustain from climate mitigation and adaptation actions and requesting that those companies recognize their role in generating those costs and “agree to pay [their] fair share.”²⁹⁸ The Climate Law in our Hands campaign in British Columbia “is asking 190 of the province's local governments to send climate accountability letters to the world's largest fossil fuel companies.”²⁹⁹ They highlight that this step takes little time or money for communities but it could have important consequences: once fossil fuel companies have received these letters demanding they pay their share of climate costs it “becomes a risk that they arguably should be disclosing to their shareholders.”³⁰⁰

The second step in the campaign, entitled “Evaluate and Plan for Climate Impacts,” is for communities to document and quantify all of the costs they are sustaining to address the threats of climate change.³⁰¹ This step produces important evidence for step three, a class action against fossil fuel companies. WCEL emphasizes that a class action is but one of several strategies to demand accountability from fossil fuel companies and it is not an inevitable step.³⁰²

On its website, the campaign lays out a publicly available roadmap of climate change litigation that could be launched if fossil fuel companies do not agree to pay their fair share of

²⁹⁷ West Coast Environmental Law, “Climate Law in our Hands in British Columbia,” online: <<http://www.climatelawinourhands.org/climatelawinourhandsbc/>> accessed 29 August 2017 [Climate Law in our Hands BC].

²⁹⁸ West Coast Environmental Law, “Demand Accountability,” online: <<http://www.climatelawinourhands.org/demand-accountability>> accessed 29 August 2017.

²⁹⁹ *Ibid.*

³⁰⁰ *Ibid.*

³⁰¹ Climate Law in our Hands BC, *supra* note 297.

³⁰² West Coast Environmental Law, “A BC class action against climate polluters,” online: <<http://www.climatelawinourhands.org/bcclassaction>> accessed 29 August 2017 [Climate Class Action].

community costs from climate impacts. WCEL explains the decisions behind its proposed climate change litigation strategy—a nuisance class action brought by local governments against fossil fuel companies to recoup community costs for climate adaptation.³⁰³ WCEL suggests that local governments would be ideal plaintiffs because “[t]hey incur direct climate-related costs in order to perform their legal responsibilities and protect their citizens” and thus have a strong argument that they have standing to bring suit.³⁰⁴ They suggest suing in both public nuisance, for “unreasonable interference with our common right to a healthy global atmosphere” and private nuisance, for “unreasonable interference with the property of the local governments.”³⁰⁵ The suggestion that local governments should sue for costs related to infrastructure adaptation was driven by WCEL’s recognition of how difficult it has been for plaintiffs to prove causation in pro-regulatory climate change litigation.³⁰⁶ For example, in *Native Village of Kivalina v. Exxon Mobil Corp.*, Plaintiffs, “a self-governing, federally recognized tribe of Inupiat Native Alaskans,” sued a group of energy producers, including Exxon Mobil, in federal district court. The Plaintiffs alleged that their village had been profoundly impacted by storms and erosion caused by climate change and that the energy producers had substantially contributed to climate change, causing injury to the Plaintiffs.³⁰⁷ The District Court held that the Plaintiffs lacked standing to sue because they could not establish that the energy producers’ actions had caused their injury.³⁰⁸ In contrast to the fact patterns in cases like *Kivalina*, climate adaption costs are being incurred by communities in the present and the costs are already explicitly linked to climate change. WCEL

³⁰³ *Ibid.*

³⁰⁴ *Ibid.*

³⁰⁵ *Ibid.*

³⁰⁶ *Ibid.*

³⁰⁷ *Native Village of Kivalina v Exxon Mobil Corp.*, 696 F.3d 849 at 853-54 (9th Cir. 2012).

³⁰⁸ *Ibid* at 854.

argues that this should make it easier for local governments to prove causation in their potential nuisance class action.³⁰⁹

Finally, WCEL proposes that local governments should bring their suit against fossil fuel companies. Drawing from research that traces shares of global GHG emissions back to specific fossil fuel companies, WCEL suggests that local governments focus on suing larger polluters. In explaining this strategy, they write that:

5 companies (Chevron, Exxon Mobil, Saudi Aramco, British Petroleum and Shell) are, according to precedent-setting research, responsible for approximately 14% of historic greenhouse gas emissions (from their direct emissions and those of their products). We propose only claiming each company's fair share based on that percentage, limiting their ability to add other companies as co-defendants.³¹⁰

Although, it may seem like a daunting legal strategy to sue a group of the biggest fossil fuel companies in the world, WCEL explains that one of the reasons for suggesting a class action style lawsuit is that losing parties do not have to pay the winning party's legal fees under BC class action rules.³¹¹

5.2.1 Psychological Analysis

Many features of WCEL's Climate Law in our Hands campaign relate to the research in psychology and framing discussed in chapters three and four. I will draw from the insights in those chapters to analyze the Climate Law in our Hands campaign, as well as the counter-narratives offered by industry and citizen groups. I will begin by analyzing the campaign through a climate psychology lens, evaluating characteristics of the campaign in light of the insights from each of the relevant bodies of literature discussed in chapter three: the cognitive hurdles to addressing tragedies of the commons, the features of laypeople's risk assessment, activating

³⁰⁹ Climate Class Action, *supra* note 302.

³¹⁰ *Ibid.*

³¹¹ *Ibid.*

moral intuition on climate change, and how to empower the public on climate change. Then I will evaluate the frames used by the campaign in light of the insights from framing theory highlighted in chapter four.

5.2.1.1 Tragedy of the Commons

In his analysis of how to overcome the cognitive hurdles preventing people from addressing tragedies of the commons—like climate change—Thompson suggests that lawsuits can help resource users acknowledge they have a problem and strategize for how to address the problem.³¹² The Climate Law in our Hands campaign is ideally suited to serving these purposes. The key goal of the initiative “is to start a much-needed conversation about the fossil fuel industry’s responsibility to pay for the harm their products are causing to communities around the world.”³¹³ It is facilitating community discussion around how the problem of climate change should be addressed. WCEL has partnered with organizations in British Columbia to ask local governments to demand accountability from fossil fuel companies via letter or invoice and to consider joining a class action against such companies.³¹⁴ As the campaign is currently structured, a class action will only proceed if a sufficient number of citizens pressure their local governments to launch such a lawsuit; thus community input and support is necessary for the campaign to even result in a lawsuit.

Two of the three key cognitive hurdles preventing the public from successfully addressing tragedies of the commons like climate change are uncertainty and individual

³¹² Thompson, *supra* note 141 at 267.

³¹³ West Coast Environmental Law, “Flex your local muscles and hold fossil fuel companies accountable,” online: <<http://www.wcel.org/blog/flex-your-local-muscles-and-hold-fossil-fuel-companies-accountable>> accessed 29 August 2017 [Flex Local Muscles].

³¹⁴ West Coast Environmental Law, Dear Local Governments, “Joint sign-on letter to BC’s local governments,” online: <<http://www.climatelawinourhands.org/a-challenge-to-bc-local-governments/>> accessed 29 August 2017 [Letter to Local Governments].

discounting of future risks.³¹⁵ Climate Law in our Hands’ proposed class action is structured in such a way as to minimize scientific and social uncertainty around the threat of climate change. Climate change is a complex and nonlinear phenomenon, interacting with many other scientific phenomena. This complexity can make it difficult to say that events like hurricanes or wildfires are definitively *caused* by climate change. In the legal context, causation is critical to both establishing standing and to establishing a tort claim. As WCEL notes on its website “‘causation’ [has often been] seen as a barrier to climate litigation.”³¹⁶ In the US, the causation prong of standing analysis has frequently been an insurmountable bar for climate change litigants.³¹⁷

Recognizing the barrier of causation, Climate Law in our Hands has suggested that local governments sue for climate adaptation costs, costs that “are incurred to prepare infrastructure and services to withstand changes in the climate over a 30-50+ year time-frame, based on the best available climate science about how a region is changing.”³¹⁸ Local governments are incurring these costs for the explicit purpose of preparing for climate change, and thus they have a strong legal argument that the costs are *caused* by climate change. This legal strategy aligns with Thompson’s suggestions for how to minimize uncertainty, and for how to get resource users to overcome their discounting of future risk and take tragedies of the commons seriously before the common resource collapses. He proposes that communicators “focus on the *current* drawbacks of an unconstrained commons.”³¹⁹ By centering on the costs communities are incurring now to prepare for future climate impacts, Climate Law in our Hands focuses public

³¹⁵ Thompson, *supra* note 141 at 274.

³¹⁶ Climate Class Action, *supra* note 302.

³¹⁷ See e.g. Corey Moffat, “Establishing Causation in Private Party Climate Change Suits: Correcting the Mistakes of *Washington Environmental Council v. Bellon*” (2014) 44 *Envtl. L.* 959 at 964-66.

³¹⁸ Climate Class Action, *supra* note 302.

³¹⁹ Thompson, *supra* note 141 at 274 [emphasis in original].

attention on the current drawbacks of climate change and makes it harder for the public to discount the future impacts. It also might help minimize scientific uncertainty by galvanizing communities to meticulously document the costs of expected climate impacts and make those impacts tangible and salient to the public.

It is not just scientific uncertainty that hampers individuals' ability to address collective action problems but social uncertainty as well. The key message of *Climate Law in our Hands* is that fossil fuel companies should have to pay their fair share of climate costs. As discussed in chapter three, collective action problems engender social uncertainty because people cannot agree on who should bear the burden of solving such problems; there is no consensus on the fairest way to divide the burden. Arguing that the fossil fuel industry should bear the burden of addressing climate change could be a divisive message, especially given research showing that people with hierarchical, individualistic worldviews greatly value industry.³²⁰ By selecting industry members as the defendants in their proposed class action lawsuit, *Climate Law in our Hands* risks making individuals already skeptical of environmental risks more doubtful of those risks. On the other hand, the *Climate Law in our Hands* campaign's core message is asking industry to pay its *fair* share of climate costs. This emphasis on fairly dividing the burden of climate adaption costs, which would otherwise fall entirely on local taxpayers, could generate buy-in from otherwise skeptical community members. Beyond the substance of the campaign's message, the manner of the campaign's communication of that message—through local discussion—is also aligned with Thompson's suggestions for overcoming cognitive hurdles to addressing climate change. He highlights the importance of community discussion, writing that

³²⁰ Kahan et al, *supra* note 193 at 733.

“studies suggest that once all the users of a commons come together, start talking, and learn what others believe to be fair, they adjust their own perceptions of fairness to a less biased opinion.”³²¹

5.2.1.2 Risk Assessment

Chapter three discussed research about how profoundly important emotion, heuristics, and cultural and ideological worldviews are to laypeople’s risk assessment. This research explains how and why so many people have trouble understanding and believing the dangers of climate change. One way climate litigation could advance climate advocacy is by spurring more people to believe in or recognize the dangers of climate change. As mentioned above, because the Climate Law in our Hands campaign centers on the necessity of industry bearing responsibility for climate costs, it may not overcome the cognitive hurdles of motivated reasoning or cultural cognition. According to the theories of motivated reasoning and cultural cognition, individuals predisposed to support industry can be unconsciously motivated to dismiss evidence that does not fit with their support of industry.³²²

However, because the campaign focuses on the present costs of future risks of climate change, it may make those future risks more salient to the public. Laypeople often rely on System 1, heuristic-driven, information processing which can cause them to underestimate the dangers associated with “more remote, less gripping hazards such as climate change.”³²³ By getting local communities to confront and discuss the present costs of future risks, Climate Law in our Hands may help make the dangers associated with climate change more visceral to the public.

³²¹ Thompson, *supra* note 141 at 277.

³²² Kahan et al, *supra* note 193 at 733-34.

³²³ Kahan, *supra* note 177 at 408.

5.2.1.3 Moral Intuition

As discussed in chapter three, although moral intuition about an issue can motivate action, it has been difficult to get the public to see climate change through a moral lens. Scholars have identified several important reasons why climate change does not activate the public's moral intuition and offered suggestions for how to do so. The Climate Law in our Hands campaign has several features that might help the public view climate change as a moral issue, thus motivating them to take action.

The Climate Law in our Hands campaign challenges the narrative that climate change is the result of an unintentional action—a narrative that makes it difficult to activate the public's moral intuition about climate change. It argues that the fossil fuel industry is disproportionately responsible, compared to average citizens, for the harms of climate change and must thus shoulder its share of the costs. One effort of the campaign, a 2017 letter signed by West Coast Environmental Law and more than 50 other organizations, describes the blameworthiness of the fossil fuel industry in the following terms:

The fossil fuel industry is keen to avoid a conversation about its responsibility for climate change. Just 90 entities – primarily fossil fuel companies – have caused almost 2/3 of human caused greenhouse gas emissions, and just three – Chevron, Exxon Mobil and Saudi Aramco – are responsible for almost 10%! Like the tobacco industry before it, Big Oil relies on the perception that individual consumers are responsible for climate change while pocketing billions of dollars in profits from products that they know are disastrous for our atmosphere and communities around the world.³²⁴

As Markowitz and Shariff noted, “recognizing a harmful event as the product of an intentional agent...is a highly motivating cue for corrective action.”³²⁵ The Climate Law in our Hands

³²⁴ Letter to Local Governments, *supra* note 314.

³²⁵ Markowitz & Shariff, *supra* note 212 at 244.

campaign focuses blame for climate change, which is often diffuse and malleable, on a small number of fossil fuel companies who have produced a large fraction of anthropogenic GHGs. It underscores the blameworthiness of the actions of the fossil fuel industry by comparing them to those of the tobacco industry, saying that both profit from disaster. In another moral framing, the letter notes that the impacts of climate change are “still more challenging for vulnerable groups - the poor, Indigenous people, women and children.”³²⁶

The campaign has another feature that might help it activate the public’s moral intuition about climate change. One of the cognitive hurdles that prevents climate change from being seen as a moral issue is guilty bias.³²⁷ Climate change narratives that blame the public for their individual choices can induce guilt and fear, which can make people “engage in biased cognitive processes to minimize perceptions of their own complicity.”³²⁸ The Climate Law in our Hand’s campaign is tailor-made to avoid guilty bias, refocusing blame to those the campaign sees as the much bigger culprits—fossil fuel companies. For example, here is a paragraph from the campaign’s website:

Do you feel like you’re personally responsible for the climate crisis?

Much of the talk about climate change focuses on individual actions: how we heat and power our homes, how we get around, what we buy and consume in our fossil fuel-dependent world.

While we should all be concerned about the impacts of our lifestyle, there’s a bigger picture as well. **A small group of very large companies has cashed in on our fossil fuel consumption.** Those companies have made hundreds of billions of dollars extracting, processing, marketing and selling fossil fuels.³²⁹

³²⁶ Letter to Local Governments, *supra* note 314.

³²⁷ Markowitz & Shariff, *supra* note 212 at 244.

³²⁸ *Ibid.*

³²⁹ West Coast Environmental Law, “Why demand accountability from fossil fuel companies?,” online: <<http://www.climatelawinourhands.org/why-demand-accountability/>> accessed 29 August 2017 [emphasis in original] [Why Demand Accountability].

This narrative seeks to minimize individual guilt while also emphasizing that certain actors have intentionally contributed to and profited from climate change.

5.2.1.4 Self-Efficacy

Researchers have highlighted the importance of self-efficacy, the “sense of being able to do anything about climate change,”³³⁰ to climate change communications. Sometimes by highlighting the magnitude of the problem of climate change, communicators actually make people feel disempowered to address it.³³¹ The Climate Law in our Hands campaign explicitly employs language of empowerment, telling the public that there are simple, inexpensive steps to take to mitigate the dangers of climate change. For example, here is a quote from the campaign’s website:

Our letter represents a first step in rejecting the powerlessness that we all feel in relation to the climate crisis. We are frightened of what climate change is doing to our communities and to the communities of the world. But it is not true that we can do nothing about it.³³²

5.2.2 Framing Analysis

Analyzing the Climate Law in Our Hands campaign through the lens of the framing literature highlighted in chapter four provides several important insights. The first is that the campaign’s explicit attempt to reframe the issue of climate change as being a systemic or corporate issue rather than an individual one is a smart strategic move. Both the tobacco and processed-food industries and their allies attempted to frame the issues of smoking and obesity as individual problems rather than systemic public health problems.³³³ As previously mentioned,

³³⁰ O’Neill et al, *supra* note 231 at 414.

³³¹ *Ibid* at 419.

³³² Flex Local Muscles, *supra* note 313.

³³³ See e.g. Friedman et al, *supra* note 238; Brownell & Warner, *supra* note 26.

when public health issues are framed as individual problems it signals “that those who suffer the consequences of consuming certain risky products...are to blame for their injuries and it is not the role of social institutions” to step in and confront the problem.³³⁴

Lawrence outlines factors that make a public health frame more salient to the public, including whether the health risk is portrayed as intentionally created.³³⁵ As discussed in the above climate psychology analysis of the campaign, *Climate Law in our Hands* has framed climate change as being intentionally created. The following line from the campaign’s website underscores this message of intentionality: “The argument for [the fossil fuel industry’s] liability is particularly strong for the period during which the companies knew that their products were causing climate change.”³³⁶

Osofsky and Peel emphasize that the way a frame is communicated can be just as important as the frame itself.³³⁷ Vouchers, “knowledgeable and trusted members of a person’s cultural group,” are especially effective at communicating frames.³³⁸ By building a coalition of local community groups to petition local governments to think about who should pay for climate adaptation costs, the *Climate Law in our Hands* campaign is drawing on locally known vouchers to frame its climate message. The campaign recognizes how important these community vouchers and discussions are, writing in its letter to local governments that:

[demanding fossil fuel accountability and working towards a class action lawsuit], as well as a general public discussion about the role of fossil fuels in our future economy, are most likely to move forward if our communities understand how we are being, and will be, impacted by climate change. We urge you to work with

³³⁴ Friedman et al, *supra* note 238 at 250.

³³⁵ Lawrence, *supra* note 252 at 59.

³³⁶ *Climate Class Action*, *supra* note 302.

³³⁷ Osofsky & Peel, *supra* note 21 at 714.

³³⁸ *Ibid.*

your citizens, climate scientists and other experts in a publicly transparent way to explore what needs to be done to prepare your community for climate change.”³³⁹

Osofsky and Peel underscore the centrality of economics in the framing of climate change.³⁴⁰ While the Climate Law in our Hands campaign has its own economic framing of climate change, that it is unfair for “taxpayers alone to foot the bill,”³⁴¹ it is possible to see how other groups might reframe action on climate change and the campaign as producing “dire economic consequences.”³⁴² Indeed, as will be discussed below, one group has already used this frame in response to Climate Law in our Hands.

Finally, as Osofsky and Peel noted, one frame that might have bipartisan appeal is disaster resilience.³⁴³ They recommend framing adaptation steps “in terms of disaster resilience and response rather than climate change itself.”³⁴⁴ Osofsky and Peel are suggesting communication techniques for an American audience, and Climate Law in our Hands is currently focused in Canada, but it may be helpful to the campaign to focus even more on disaster resilience to create bipartisan support for climate action.

As previously mentioned, pro-regulatory climate frames never exist in a vacuum. Below I will detail how a citizen group and an industry member have pushed back against the narrative that the fossil fuel industry should pay its fair share of climate costs.

Friends of Science Society, “an independent group of earth, atmospheric and solar scientists, engineers, and citizens” who believe “the sun is the main driver of climate change, not

³³⁹ Letter to Local Governments, *supra* note 314.

³⁴⁰ Osofsky & Peel, *supra* note 21 at 721.

³⁴¹ Why Demand Accountability, *supra* note 329.

³⁴² Osofsky & Peel, *supra* note 21 at 721.

³⁴³ *Ibid* at 724.

³⁴⁴ *Ibid* at 737.

carbon dioxide (CO₂),”³⁴⁵ responded to the Climate Law in our Hands campaign with several counter-narratives in a 2017 press release. First, they challenge WCEL and others who have signed onto the Climate Law in our Hands campaign to “walk-the-walk” and give up using fossil fuels immediately.³⁴⁶ They also use an economic argument, pointing to all the ways fossil fuels are being used in British Columbia, including to power airports, shipping ports, and ferries, and argue that oil and gas are a “saving grace.”³⁴⁷ Finally they highlight a blog post describing “how the sudden loss of fossil fuels to the mainland, so desired by the ‘green’ anti-oil activists, would result in a ‘Zombie Apocalypse’ of social anarchy and chaos within days.”³⁴⁸ There are three key ways the Friends of Science Society (“the Society”) is trying to reframe the narrative offered by Climate Law in our Hands. While WCEL has been presenting the campaign as being about community empowerment and asking fossil fuel companies to pay their fair share of the costs of climate impacts, the Society is attempting to reframe the campaign as being grounded in hypocrisy. Essentially, they argue that if WCEL and these other organizations think fossil fuels are such a problem, they should cease personal use of them immediately. They also use an economic frame, arguing that communities will be financially imperiled if they stop using fossil fuels, paralleling a common climate frame used in the US. They also attempt to reframe the campaign as being about forcing the immediate end of fossil fuels in British Columbia, by pointing to a blog post that predicted social anarchy if fossil fuels were immediately phased out of use in the province.

³⁴⁵ Friends of Science Society, Media Release, “Friends of Science Society calls on West Coast Environmental Law to Walk the Talk on Climate Change and Fossil Fuel Phase-out and Go Without” (8 February 2017), online: PRWEB <<http://www.prweb.com/releases/2017/02/prweb14053101.htm>> accessed 29 August 2017.

³⁴⁶ *Ibid.*

³⁴⁷ *Ibid.*

³⁴⁸ *Ibid.*

Suncor Energy, a Canadian energy company with a heavy stake in Canada's tar sands, has pushed back against the suggestion that fossil fuel companies should pay their fair share of climate costs. In a company blog post entitled, "What to do when everyone is the problem," Suncor argues that the fossil fuel industry should not be singled out for blame for the dangers of climate change.³⁴⁹ The post is not written in direct response to the Climate Law in our Hands Campaign but it does reference a report exploring the legal liability of Canadian fossil fuel companies in relation to climate change.³⁵⁰ Suncor writes: "The hard, undeniable truth is that all of us, as fortunate members of the developed world, are complicit when it comes to GHG emissions."³⁵¹ The blog drives home this message of individual responsibility for climate change, writing: "Thinking of one self as a polluter is unappealing and hard on the ego. But so should be the thought of inaction, given our climate change challenge and the tough choices we're facing as we seek a path to a more sustainable energy."³⁵²

WCEL's Climate Law in our Hands' framing of the causes and consequences of climate change is diametrically opposed to the framing offered by Suncor. In explaining the importance of its campaign, WCEL emphasizes that it is industry action and not individual action that is disproportionately responsible for the dangers of climate change. As discussed above, when people feel guilty about climate change, they subconsciously work to minimize the threat of climate change in an effort to lessen their guilt. Suncor's framing emphatically singles out individuals as being responsible for creating the dangers of climate change.

³⁴⁹ Suncor, Oil Sands Question and Response, "What to do when everyone is the problem" (30 October 2014), online: <<http://osqar.suncor.com/2014/10/what-to-do-when-everyone-is-the-problem.html>> accessed 29 August 2017.

³⁵⁰ *Ibid.*

³⁵¹ *Ibid.*

³⁵² *Ibid.*

5.3 Our Children’s Trust

The US non-profit Our Children’s Trust has been filing some of the most cutting edge climate change litigation in recent years. Its mission is to “lead a game-changing legal campaign seeking systemic, science-based emissions reductions and climate recovery policy at all levels of government. We give young people, those with most at stake in the climate crisis, a voice to favorably impact their futures.”³⁵³ The organization has launched or supported lawsuits based in state law across the US; their legal strategy centers on “secur[ing] the legal right to a stable climate and healthy atmosphere.”³⁵⁴ They also partner with youth and attorneys around the world to help advance climate change lawsuits in other jurisdictions.³⁵⁵ Our Children’s Trust has also created a program, called Youth Climate Action Now, that “trains and supports youth, their families, and other supporters to engage in civic participation with local government.”³⁵⁶ Finally, Our Children’s Trust has supported a climate change lawsuit at the federal level, *Juliana v. United States*, which will be the focus of my analysis.

5.3.1 *Juliana v. United States*

In August 2015, twenty-one youth, along with prominent climate scientist Dr. James E. Hansen and the non-profit Earth Guardians, filed a lawsuit against the US government in the U.S. District Court for the District of Oregon.³⁵⁷ The Plaintiffs presented four claims for relief,

³⁵³ Our Children’s Trust, About Us, “Our Mission,” online: <<https://www.ourchildrenstrust.org/mission-statement/>> accessed 29 August 2017.

³⁵⁴ Our Children’s Trust, Legal Actions, “State Legal Actions” online: <<https://www.ourchildrenstrust.org/state-legal-actions/>> accessed 29 August 2017.

³⁵⁵ Our Children’s Trust, Legal Actions, “Global Legal Actions” online: <<https://www.ourchildrenstrust.org/global-legal-actions/>> accessed 29 August 2017.

³⁵⁶ Our Children’s Trust, Legal Actions, “Grassroots Legal Actions,” online: <<https://www.ourchildrenstrust.org/grassroots-legal-actions/>> accessed 29 August 2017.

³⁵⁷ Our Children’s Trust & Earth Guardians, Press Release, “America’s Youth File Landmark Climate Lawsuit Against U.S. Government and President” (12 August 2015) at 1, online: Our Children’s Trust

alleging that the US government has acted in 1) “violation of the due process clause of the Fifth Amendment;” 2) “violation of equal protection principles embedded in the Fifth Amendment;” 3) violation of “the unenumerated rights preserved for the people by the Ninth Amendment;” and 4) “violation of the public trust doctrine.” I will discuss each claim in turn below.

5.3.1.1 Plaintiffs’ Claims

5.3.1.1.1 Claim 1: Violation of the Due Process Clause of the Fifth Amendment

The Fifth Amendment to the US Constitution states that “no person shall... be deprived of life, liberty, or property, without due process of law.”³⁵⁸ In their complaint the Plaintiffs allege that their:

substantive Fifth Amendment rights have been infringed because Defendants directly caused atmospheric CO₂ to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs. The present CO₂ concentration and continuing CO₂ emissions – a function, in substantial part, of Defendants’ historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization – endangers Plaintiffs’ lives, liberties, and property.³⁵⁹

Essentially, the Plaintiffs argue that, despite knowing how dangerous climate change could be to its citizens, the US government has allowed and encouraged the development and use of fossil fuels, and the ensuing scale of GHG emissions from such use and development threatens the life, liberty, and property of the Plaintiffs. They argue that America’s “climate system including the atmosphere and oceans, is critical to Plaintiffs’ rights to life, liberty, and

<<https://static1.squarespace.com/static/571d109b04426270152febe0/t/575adceb4c2f8523de7286a2/1465572588513/15.08.12FederalClimateLawsuitPressRelease.pdf>> accessed 29 August 2017 [Youth File Climate Lawsuit].

³⁵⁸ US Const amend V.

³⁵⁹ *Juliana v United States* (10 September 2015), D. Or., Case No. 6:15-cv-01517-TC (Plaintiffs’ First Amended Complaint for Declaratory and Injunctive Relief at para 279), online:

<<https://static1.squarespace.com/static/571d109b04426270152febe0/t/575add014c2f8523de728730/1465572614596/YouthAmendedComplaintAgainstUS.pdf>> accessed 29 August 2017 [Youth Complaint].

property.”³⁶⁰ Throughout the complaint, the Plaintiffs underscore that the US government both knew about the dangers of climate change and that they knowingly helped contribute to the dangers of climate change. For example, they write: “For the past fifty years, Defendants have known about the danger to Plaintiffs’ safety created by carbon pollution. Acting with full appreciation of the consequences of their acts, Defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system.”³⁶¹

5.3.1.1.2 Claim 2: Violation of Equal Protection Principles Embedded in the Fifth Amendment

In their second claim for relief, the Plaintiffs argue that the Court should treat the youth and future generations as suspect classes under the Fifth Amendment, and that both the youth and future generations have had their fundamental rights violated by the US government. To support their argument that they should be treated as suspect classes, the Plaintiffs argue that:

Defendants have a long history of deliberately discriminating against children and future generations in exerting their sovereign authority over our nation’s air space and federal fossil fuel resources for the economic benefit of present generations of adults. Plaintiffs are an insular minority with no voting rights and little, if any, political power or influence over Defendants and their actions concerning fossil fuels. Plaintiffs have immutable age characteristics that they cannot change.³⁶²

In making out their claim, the Plaintiffs argue that laws that discriminate against youth and future generations should trigger strict scrutiny from the court and must be struck down.³⁶³ They provide an example of a discriminatory law, the Energy Policy Act, and explain why they believe it is discriminatory:

³⁶⁰ *Ibid.*

³⁶¹ *Ibid* at para 280.

³⁶² *Ibid* at para 294.

³⁶³ *Ibid* at paras 293-97.

The Energy Policy Act’s mandatory authorization for export and import of natural gas discriminates against Plaintiffs by exacerbating already-dangerous levels of atmospheric CO2 and a dangerous climate system, the consequences of which will be irreversible and catastrophic in Plaintiffs’ lifetimes. The Energy Policy Act, section 201, creates a disproportionate impact on suspect classes. Historical evidence demonstrates Defendants’ discriminatory and intentional acts against children and future generations in order to foster the short-term economic and energy interests of other classes, including corporations. The Energy Policy Act unconstitutionally deprives minor children and future generations of equal protection of the law because the full impacts of excess atmospheric CO2 and the dangerous climate system, resulting from the U.S. government-authorized natural gas exports and imports, will be disproportionately imposed upon minor children, including Youth Plaintiffs, and for millennia by future generations.³⁶⁴

5.3.1.1.3 Claim 3: The Unenumerated Rights Preserved for the People by the Ninth Amendment

In claim 3, the Plaintiffs argue that the dangers of climate change threaten both liberty and justice in the US.³⁶⁵ They contend that one of “the implicit liberties protected from government intrusion by the Ninth Amendment is the right to be sustained by our country’s vital natural systems, including our climate system.”³⁶⁶ Obviously the Constitution does not explicitly mention climate change, as the threat of climate change was unknown when the Constitution was written. The Plaintiffs argue here that protecting the US from dangerous climate change is fundamental to safeguarding other rights that are explicitly protected by the Constitution.

5.3.1.1.4 Claim 4: Violation of the Public Trust Doctrine

In their fourth and final claim, the Plaintiffs argue that under the public trust doctrine, the US government is a sovereign trustee of the US’s natural resources, which are essential to the

³⁶⁴ *Ibid* at para 299.

³⁶⁵ *Ibid* at para 303.

³⁶⁶ *Ibid* at para 303

wellbeing of US citizens. Accordingly, the government has a duty to keep from substantially impairing those resources.³⁶⁷ The Plaintiffs expound on the public trust doctrine:

Plaintiffs are beneficiaries of rights under the public trust doctrine, rights that are secured by the Ninth Amendment and embodied in the reserved powers doctrines of the Tenth Amendment and the Vesting, Nobility, and Posterity Clauses of the Constitution. These rights protect the rights of present and future generations to those essential natural resources that are of public concern to the citizens of our nation. These vital natural resources include at least the air (atmosphere), water, seas, the shores of the sea, and wildlife. The overarching public trust resource is our country's life-sustaining climate system, which encompasses our atmosphere, waters, oceans, and biosphere. Defendants must take affirmative steps to protect those trust resources.³⁶⁸

The Plaintiffs contend that by supporting, subsidizing, and approving fossil fuel production and use in the US, the government has failed in its duty as sovereign trustee.³⁶⁹

Beyond the complaint itself, the press release accompanying the initial filing of the complaint in *Juliana v. United States* offers significant insights into the narrative the Plaintiffs and Our Children's Trust are trying to communicate to the American public. One of the most significant aspects of the press release is its focus on the diverse stories of the young Plaintiffs:

Youth Plaintiff Tia Hatton, from Bend, OR, has experienced record low snowfall for the past three years, threatening her water supplies and winter sports. She knows carbon pollution confronts her and her generation with the specter of severe water shortages, and is concerned she will be forced to stop skiing competitively. Levi Draheim, an 8-year-old Plaintiff from Indialantic, FL lives with his family on a small barrier island between the Atlantic ocean and a lagoon. Sea level rise is already seriously impacting their island, and Levi is worried he will have to move if it becomes worse. Plaintiff Journey Zephier, a 15-year-old who lives in Kaua'i, Hawai'i, is watching the island's beaches erode away. The island's decreased rainfall is resulting in lower river water levels, and his community is faced with serious water quality problems because saltwater is intruding upriver from sea level rise.³⁷⁰

³⁶⁷ *Ibid* at paras 308, 309.

³⁶⁸ *Ibid* at para 308.

³⁶⁹ *Ibid* at para 310.

³⁷⁰ Youth File Climate Lawsuit, *supra* note 357 at 2.

5.3.1.2 Government and Industry Response

In its motion to dismiss the Plaintiffs' lawsuit, the US government argued that the Plaintiffs had no standing, that their injuries were too generalized, and that the Court would be forced to wade far into policy-making to address the Plaintiffs claims.³⁷¹ This thesis focuses on how litigation can best communicate the dangers of climate change in the court and in the public sphere and thus I am discussing and analyzing legal claims for their narrative salience rather than their legal merit. Unsurprisingly, the US government argues that the Plaintiffs do not have standing to bring their suit. The government presents two arguments that have hindered climate change lawsuits in the past—that the causal chain alleged by the Plaintiffs is too attenuated and that the Plaintiffs' grievances are better addressed by the political branch rather than the judicial branch. As previously mentioned, causation has often been a stumbling block in climate change litigation. The US Supreme Court's test for standing requires Plaintiffs to demonstrate:

(1) an “injury in fact” that is “concrete and particularized” and “actual or imminent, not conjectural or hypothetical”; (2) that their injury is fairly traceable to the challenged action of the defendant, and not the result of the “independent action of some third party not before the court”; and (3) that it is “‘likely’ as opposed to merely ‘speculative’ that the injury will be ‘redressed by a favorable decision.’”³⁷²

In its motion to dismiss, the US government argues that the Plaintiffs have not established a sufficient causal chain between their alleged injury and the US government's actions.³⁷³

The US government also argues that the Plaintiffs do not have standing because their injuries are not redressable by the Court. They write:

³⁷¹ *Juliana v United States* (17 November 2015), D. Or., Case No. 6:15-cv-01517-TC (Federal Defendants' Memorandum of Points and Authorities in Support of their Motion to Dismiss at page 1), online: <<https://static1.squarespace.com/static/571d109b04426270152febe0/t/576195bd2fe1316f09d2ef81/1466013119008/15.11.17.Fed+MTD+Memo.pdf>> accessed 29 August 2017.

³⁷² *Ibid* at 7-8.

³⁷³ *Ibid* at 11-12.

Plaintiffs seek a comprehensive national climate policy, overseen by a single federal district court, that would require wholesale changes to energy production and consumption in this country...Formulating and enforcing this expansive relief lies outside this Court's competence and jurisdiction.³⁷⁴

The National Association for Manufacturers, the American Fuel & Petrochemical Manufacturers, and the American Petroleum Institute intervened as defendants in *Juliana v. United States*. They offer similar legal arguments to the US government. Their framing of the Plaintiffs' case is interesting. They describe the Plaintiffs as:

a group of environmental organizations and individuals seeking the same extraordinary relief: to commandeer the authority of many federal agencies to direct them "to cease their permitting, authorizing, and subsidizing of fossil fuels" and take whatever other actions are "necessary" to drastically reduce greenhouse gas emissions in the United States to levels these plaintiffs deem acceptable.³⁷⁵

Further, they argue that the Plaintiffs' claims are not within federal court jurisdiction "because if allowed to proceed they would empower a group of private citizens to compel through judicial fiat the exercise of sweeping legislative and executive authority conferred by our Constitution exclusively to the political branches, in violation of standing and separation-of-powers principles."³⁷⁶ This echoes the framing offered in the R.J. Reynolds memo on smoking, invoking the specter of large-scale government intervention. But in this framing, environmental organizations are described as seeking to "commandeer" government authority to force widespread intervention in the US economy.

³⁷⁴ *Ibid* at 14-15.

³⁷⁵ *Juliana v United States* (12 November 2015), D. Or., Case No. 6:15-cv-01517-TC (Memorandum in Support of Intervenor-Defendants' Motion to Dismiss at page 1), online: <<https://static1.squarespace.com/static/571d109b04426270152febe0/t/576195a62fe1316f09d2eeba/1466013096665/15.11.12.IntervenorMTDMemo.pdf>> accessed 29 August 2017.

³⁷⁶ *Ibid* at 2.

5.3.1.3 Legal Status of *Juliana v. United States*

In a groundbreaking November 2016 ruling, US District Court Judge Anne Aiken denied the US government's and the Intervenor-Defendants' motions to dismiss in *Juliana v. U.S.*, clearing the way for the case to proceed to trial.³⁷⁷ Judge Aiken's discussion of the significance of the case is instructive:

This action is of a different order than the typical environmental case. It alleges that defendants' actions and inactions—whether or not they violate any specific statutory—duty have so profoundly damaged our home planet that they threaten plaintiffs' fundamental constitutional rights to life and liberty.

A deep resistance to change runs through defendants' and intervenors' arguments for dismissal: they contend a decision recognizing plaintiffs' standing to sue, deeming the controversy justiciable, and recognizing a federal public trust and a fundamental right to climate system capable of sustaining human life would be unprecedented, as though that alone requires its dismissal. This lawsuit may be groundbreaking, but that fact does not alter the legal standards governing the motions to dismiss. Indeed, the seriousness of plaintiffs' allegations underscores how vitally important it is for this Court to apply those standards carefully and correctly.

Federal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it.³⁷⁸

In a press release announcing Judge Aiken's denial of the motions to dismiss, Our Children's Trust framed the Court's decision in the following terms:

This court just gave the youth of this country the critical opportunity to protect their futures. In what will be the trial of the millennium, these young plaintiffs will prove that their federal government, in cooperation with the fossil fuel industry, has knowingly put them in grave danger, trading their futures for present convenience and gross profits for a few.³⁷⁹

³⁷⁷ *Juliana v United States* (10 November 2016), D. Or., Case No. 6:15-cv-01517-TC (Opinion and Order at page 3), online: <<https://static1.squarespace.com/static/571d109b04426270152febe0/t/5824e85e6a49638292ddd1c9/1478813795912/Order+MTD.Aiken.pdf>> accessed 29 August 2017.

³⁷⁸ *Ibid* at 52.

³⁷⁹ Our Children's Trust & Earth Guardians, Press Release, "Victory for America's Youth—Constitutional Climate Lawsuit against U.S. to Proceed" (10 November 2016) at 2, online: Our Children's Trust

After the Defendants' motions to dismiss were denied, the Intervenor-Defendants filed a motion to withdraw from the case.³⁸⁰ Judge Coffin granted the Intervenor-Defendants' request to withdraw.³⁸¹ The move to withdraw signals that the fossil fuel industry groups understand the importance of the trial and the potential legal and public relations ramifications of the climate lawsuit. As of the writing of this thesis, the case was set for trial in February 2018.³⁸²

5.3.2 Psychological Analysis

The fact that the Court in *Juliana v. United States* denied the Defendants' motions to dismiss demonstrates that the Plaintiffs presented arguments that have potential to succeed on the legal merits. But can those same claims help build support for climate mitigation in the minds of the US public? To help answer that question, I will analyze the Plaintiffs' case through a climate psychology lens, evaluating characteristics of the litigation in light of the insights from each of the relevant bodies of literature discussed in chapter three. Then I will evaluate the frames used by the campaign in light of the insights from framing theory highlighted in chapter four.

5.3.2.1 Risk Assessment

As previously discussed, laypeople often rely on simple heuristics, or judgment rules, when assessing environmental risks.³⁸³ This can make laypeople underestimate the risks of less visceral or emotionally charged dangers, like climate change.³⁸⁴ *Juliana v. United States* might

<<https://static1.squarespace.com/static/571d109b04426270152febe0/t/5824e5cd8419c279f4469e8d/1478813133942/2016.11.10Aiken+Decision+PR+.pdf>> accessed 29 August 2017.

³⁸⁰ *Juliana v United States* (28 June 2017), D. Or., Case No. 6:15-cv-01517-TC (Order at page 1), online: <<https://static1.squarespace.com/static/571d109b04426270152febe0/t/59541c8db3db2b21ddf4c17e/1498684558660/2017.07.28+Order+Granting+Motions+to+Withdraw-Setting+Trial+Date.pdf>> accessed 29 August 2017.

³⁸¹ *Ibid.*

³⁸² *Ibid* at 5.

³⁸³ Kahan, *supra* note 177 at 408.

³⁸⁴ *Ibid.*

help overcome that climate change communications hurdle because it describes the dangers of climate change in vivid, gripping terms. The case has already generated immense media coverage³⁸⁵ and, as a showdown now looms with the Trump administration, stands ready to generate more. The Plaintiffs use more than eighty paragraphs in their complaint detailing how climate change is affecting and will continue to affect them. For example, in alleging how climate change will affect Xiuhtezcatl Tonatiuh M., a 15-year-old citizen from Colorado, the complaint states:

Climate change also harms Xiuhtezcatl's personal safety, property, and recreational interests through the resulting increased frequency and intensity of wildfires, drought, declining snowpack, pine-beetle infested forests, and extreme flooding near his home in Colorado. Xiuhtezcatl's home, including the forests that he relies upon for his spiritual, physical, emotional, and mental wellbeing, will continue to die and burn as climate change worsens. Water will become increasingly scarce, adversely impacting every aspect of his life.³⁸⁶

The press release accompanying the filing of the complaint also underscores the threats faced by the youth Plaintiffs.³⁸⁷ As will be discussed later in this section, the vivid descriptions of climate threats might be even more salient to the American public given the age of those facing the threats.

Although the Plaintiffs' case might help overcome the cognitive hurdle of heuristic-driven information processing when communicated to the US public, the case might exacerbate the cognitive features underlying motivated reasoning and cultural cognition. As Dan Kahan

³⁸⁵ See e.g. Coco McPherson, "High-Stakes Climate Lawsuit Led By Youth Turns Its Attention to Trump," *Rolling Stone* (28 March 2017), online: <<http://www.rollingstone.com/politics/features/youth-led-high-stakes-climate-lawsuit-shifts-focus-to-trump-w473224>> accessed 29 August 2017; Matthew O Berger, "Teens challenge US government for not protecting them from climate change," *The Guardian* (10 March 2016), online: <<https://www.theguardian.com/us-news/2016/mar/09/climate-change-teens-sue-us-government-failing-protect>> accessed 29 August 2017.

³⁸⁶ Youth Complaint, *supra* note 359 at paras 20-21.

³⁸⁷ Youth File Climate Lawsuit, *supra* note 357.

noted, individuals with a hierarchical, individualistic worldview “intuitively perceive that widespread acceptance of [environmental] risks would license restrictions on commerce and industry.”³⁸⁸ Here, the Plaintiffs’ complaint named as Defendants all of the government agencies or departments “primarily responsible for authorizing, permitting, and incentivizing fossil fuel production, consumption, transportation, and combustion.”³⁸⁹ In doing so, the Plaintiffs are signaling that their case could have profound and far-reaching consequences for the fossil fuel industry in the US. As mentioned above, the Intervenor-Defendants underscored this message in their framing of the case. Media coverage of the litigation could reinforce the message that acting on climate change could have profound consequences for industry, thereby making it harder for certain segments of the population to accept the threat of climate change.

5.3.2.2 Moral Intuition

Several features of the Plaintiffs’ case in *Juliana v. United States* can help activate the public’s moral intuition about climate change, which can in turn motivate the public to take action on climate change. The first such feature is how the case centers blame for climate change. As previously discussed, when harms are perceived as unintentional they are judged less intensely by the public.³⁹⁰ Litigation is a potentially powerful way to enhance the public’s moral intuition about climate change because its adversarial nature requires plaintiffs to target specific defendants for injuries arising from climate change. In *Juliana v. United States*, the Plaintiffs emphatically and repeatedly point out the intentionality and immorality of the US government’s actions. For example, the press release accompanying the complaint cites one of the Plaintiffs as saying:

³⁸⁸ Kahan et al, *supra* note 193 at 733.

³⁸⁹ Youth Complaint, *supra* note 359 at para 130.

³⁹⁰ Markowitz & Shariff, *supra* note 212 at 244.

The Federal Government has known for decades that CO2 pollution from burning fossil fuels was causing global warming and dangerous climate change. It also knew that continuing to burn fossil fuels would destabilize our climate system, significantly harming my generation and generations to come. Despite knowing these dangers, Defendants did nothing to prevent this harm. In fact, my Government increased the concentration of CO2 in the atmosphere to levels it knew were unsafe.³⁹¹

This narrative may be even more salient to the US public because of the identity of the Plaintiffs. The Plaintiffs are young people from across the US; the youngest Plaintiff, Levi D., was only eight years old at the time the complaint was filed.³⁹² Scholars have noted that the public finds it hard to identify with climate change victims, because those victims can appear distant in time and space.³⁹³ To overcome this disconnect, they suggest that climate communicators employ techniques “that increase individuals’ affinity and identification with future generations.”³⁹⁴ The Plaintiffs’ complaint outlines in vivid detail how youth and children from all across the US are already feeling the impacts of climate change and how those impacts will worsen in the future.³⁹⁵ The young Plaintiffs also appear in interviews.³⁹⁶ In doing so, they make it harder to dismiss the victims of climate change as nameless, faceless individuals.

5.3.3 Framing Analysis

According to the framing insights discussed in chapter four, there are several aspects of the Plaintiffs’ suit that make their framing of climate change more salient to the public. The first is that the Plaintiffs have presented climate change as a danger involuntarily imposed on them.

³⁹¹ Youth File Climate Lawsuit, *supra* note 357 at 1.

³⁹² Youth Complaint, *supra* note 359 at para 81.

³⁹³ Markowitz & Shariff, *supra* note 212 at 245.

³⁹⁴ *Ibid.*

³⁹⁵ Youth Complaint, *supra* note 359 at paras 16-91.

³⁹⁶ See e.g. “Landmark Climate Lawsuit: Meet the Youth Activists Suing the U.S. Government & Fossil Fuel Industry” *Democracy Now* (14 April 2016), online: <https://www.democracynow.org/2016/4/14/landmark_climate_lawsuit_meet_the_youth> accessed 29 August 2017.

As Lawrence explained, one of the key factors that determines how the framing of a public health risk will influence public opinion is “whether the health risk is portrayed as ‘acquired deliberately or involuntarily (and the victim correspondingly as culpable or innocent).”³⁹⁷ Once again, the identity of the Plaintiffs is key. The youth of the Plaintiffs, with one as young as eight years old, supports the frame of innocent victims having a dangerous threat imposed on them by other actors. The complaint underscores this frame, stating that the Plaintiffs have “no voting rights and little, if any, political power” and “will disproportionately experience the irreversible and catastrophic impacts of an atmosphere and oceans containing dangerous levels of CO₂.”³⁹⁸ Some scholars have argued that the evidence around second-hand smoking, and the realization that smoking was claiming innocent victims, was key to the reframing of the public debate around smoking.³⁹⁹ There is a pervasive climate change narrative that everyone is responsible for climate change and thus, in a sense, nobody is responsible. But it is much harder to argue that an eight-year-old is responsible for climate change.

As mentioned above, the Plaintiffs also allege that the US government knowingly and intentionally contributed to the dangers of climate change over many decades. Framing a public health risk as intentionally created also influences how the public apportions blame for that risk.⁴⁰⁰ The Plaintiffs also frame climate change as a universal risk, and one arising from the environment, satisfying all four factors highlighted by Lawrence for how to shift a public health debate. As she writes, “[t]he more an issue is framed in terms of involuntary risk, universal risk,

³⁹⁷ Lawrence, *supra* note 252 at 59.

³⁹⁸ Youth Complaint, *supra* note 359 at paras 294, 296.

³⁹⁹ See e.g. Lawrence, *supra* note 252 at 59.

⁴⁰⁰ *Ibid.*

environmental risk, and knowingly created risk, the more likely the opinion environment is to be conducive to public policy solutions that burden powerful groups.”⁴⁰¹

Another factor that might make the Plaintiffs’ framing of climate change more salient to the public is its use of a voucher as a Plaintiff. Dr. James E. Hansen is one of the most prominent figures in climate change advocacy, and his presence as a Plaintiff in the suit could have a significant impact on how the information in the litigation is received by the US public.

Although the Plaintiffs’ framing of climate change has many features that will make it resonate with the public, it could also feed into a less helpful climate frame. The suit is aimed at challenging the federal government’s support and approval of the fossil fuel industry and could reinforce the popular US frame that acting on climate change will lead to “dire economic consequences.”⁴⁰²

Ultimately, climate narratives cannot appeal to all audiences. There are many different messages that climate advocates need to communicate to different audiences—that climate change is real, that it is happening now, that it poses a profound danger, that there are important ways the public can and must act to mitigate the worst of the threats of climate change, and that certain powerful actors are disproportionately responsible for climate change and must therefore intervene to address the dangers. This lawsuit may not be the best vehicle for communicating to conservatives in the US, but it does send a powerful message to those who believe in climate change but are not sure who is responsible for addressing it and do not understand how imminent the dangers are.

⁴⁰¹ *Ibid.*

⁴⁰² Osofsky & Peel, *supra* note 21 at 721.

5.4 The Climate Necessity Defense

Although this thesis has focused on climate change litigation *initiated* by climate advocates as plaintiffs, there is a novel and potentially significant litigation strategy that several organizations and activists are trying to use as a *defense* in criminal trials for climate activism. The defense, called the climate necessity defense, builds off of the US tradition of civil disobedients presenting a necessity defense.⁴⁰³ The necessity defense “asserts that breaking the law was justified in order to avert a greater harm that would occur as a result of the government policy the offender was protesting.”⁴⁰⁴ Activists have recently begun using the defense in the context of climate change in the US and other jurisdictions.⁴⁰⁵ The climate necessity defense has never yet succeeded in the US, although activists are hopeful that it will soon.⁴⁰⁶ So what does the defense entail? The Climate Defense Project, a non-profit delivering legal support for climate activists,⁴⁰⁷ describes the basic legal thrust of the defense in the following terms:

The requirements of a necessity defense vary by jurisdiction but usually require a showing that the defendant a) faced an imminent danger, b) took action to prevent that danger through less harmful means, c) reasonably anticipated that the action would prevent the danger, and d) had no reasonable legal alternative to the action.⁴⁰⁸

One of the difficulties climate advocates hoping to use the climate necessity defense have encountered is that judges have refused to allow the defense to be presented to a jury at trial.⁴⁰⁹

⁴⁰³ John Alan Cohan, “Civil Disobedience and the Necessity Defense” (2007) 6 *Pierce L. Rev.* 111 at 111.

⁴⁰⁴ *Ibid.*

⁴⁰⁵ See e.g. Climate Defense Project, “Climate Necessity Defense Case Guide: A Guide for Activists and Attorneys,” online: <<https://climatedefenseproject.org/wp-content/uploads/2017/03/CDP-ClimateNecessityOutcomes-Feb-8-2017.pdf>> accessed 29 August 2017 [Climate Necessity Defense Guide].

⁴⁰⁶ Climate Disobedience Center, “The Climate Necessity Defense: A Legal Tool for Climate Activists,” online: <<http://www.climatedisobedience.org/necessitydefense>> accessed 29 August 2017.

⁴⁰⁷ Climate Defense Project, About, “What We Do,” online: <<https://climatedefenseproject.org/about/>> accessed 29 August 2017.

⁴⁰⁸ Climate Necessity Defense Guide, *supra* note 405 at 1.

⁴⁰⁹ *Ibid.*

This is similar to other attempts to use political necessity, where “[i]n most instances...courts will rule as a matter of law that the actors have failed in the offer of proof regarding the elements of the necessity defense so that the jury rarely is given the chance to weigh in on the matter.”⁴¹⁰ Nonetheless, the climate necessity defense is an important legal strategy to focus on in this thesis because its explicit purpose is to generate media attention and public debate about the need for action on climate change. When defendants elect to use the climate necessity defense, they are harnessing “the procedures and language of the legal system to educate the public about the risks of climate change, the inaction and corruption of state and federal governments, and the need for citizen action to change our energy politics.”⁴¹¹ To provide a concrete example of the climate necessity defense, I will discuss *Washington v. Brockway* or the “Delta Five” case.

5.4.1 *Washington v. Brockway*

In 2014, five climate activists now known as the “Delta Five,” Abby Brockway, Michael LaPointe, Patrick Mazza, Jackie Minchew, and Elizabeth Spoerri, trespassed onto a rail yard in Everett, Washington and chained themselves to a structure they erected to block trains carrying crude oil.⁴¹² The five climate activists were charged with obstructing or delaying a train and second-degree criminal trespass.⁴¹³ The Defendants wanted to present a climate necessity defense at trial.⁴¹⁴ In Washington, when a court finds that the necessity defense is available to the jury, the defense must:

prove by a preponderance of the evidence that:

⁴¹⁰ Cohan, *supra* note 403 at 112.

⁴¹¹ Climate Necessity Defense Guide, *supra* note 405 at 1.

⁴¹² Lance N. Long & Ted Hamilton, “Case Comment—Washington v. Brockway: One Small Step Closer to Climate Necessity” (2017) 13:1 MJSDL – RDDDM 153 at 153.

⁴¹³ *Ibid.*

⁴¹⁴ *Ibid* at 168.

- (1) the defendant reasonably believed the commission of the crime was necessary to avoid or minimize a harm; and
- (2) the harm sought to be avoided was greater than the harm resulting from a violation of the law; and
- (3) the threatened harm was not brought about by the defendant; and
- (4) no reasonable legal alternative existed.⁴¹⁵

There was a flurry of pretrial and trial actions centering on whether the Defendants could use the climate necessity defense at trial.⁴¹⁶ The State objected to the presentation of the defense, arguing that it was not applicable to the case at hand. In arguing against the first element of the defense, the State wrote that:

The state has no doubt the Defendants subjectively believed that the commission of their crimes was necessary to avoid harm, but did they really achieve that goal? There is no evidence that [the Defendants'] eight hour protest has made [the railway company] employ a safer system, or that it prevented global warming. There is no evidence that the Defendants protest put a dent into carbon emissions that are put into the air every day. There is no evidence that climate change awareness has increased due to their action. And there is no evidence that their belief was reasonable.⁴¹⁷

The Court initially denied the Defendants' motion to allow them to present a necessity defense, then later reversed itself, granting the Defendants' motion to reconsider.⁴¹⁸ The Defendants were given the right to present expert testimony to support the elements of the necessity defense and they did so by:

presenting substantial evidence related to the dangers of climate change and crude oil transport, [the railway company]'s poor safety record and control over state regulatory bodies, and the inefficacy of past attempts at legal advocacy...A

⁴¹⁵ *Washington v Brockway* (6 January 2016), Snohomish Co Dist Ct, Wash, 5053A-14D (Order Denying Defense Motion to Allow Affirmative Defense of Necessity and Expert Testimony Witness at page 4), online: <<https://www.desmogblog.com/sites/beta.desmogblog.com/files/Brockway%20Judge%20%20first%20Order%20rejecting%20experts%201%204%2016.pdf>> accessed 29 August 2017.

⁴¹⁶ Long and Hamilton, *supra* note 412 at 168.

⁴¹⁷ *Washington v Brockway* (16 December 2015), Snohomish Co Dist Ct, Wash, 5053A-14D (State's Response to Defense Motion to Allow Affirmative Defense and to Call Expert Witnesses at page 3-4) [State's Response].

⁴¹⁸ Long and Hamilton, *supra* note 412 at 170.

variety of experts from several scientific and social fields of inquiry testified to the harms presented by the transport of crude oil.⁴¹⁹

After hearing expert testimony, the Court ultimately ruled against allowing the jury to be given instruction on the climate necessity defense and prohibited them from considering expert testimony connected to the defense.⁴²⁰

Ultimately, the jury found the Defendants guilty of trespassing, but not of obstructing or delaying a train, and the Defendants were given two years of probation.⁴²¹

Washington v. Brockway remains an important case because it is the first case in the US where the jury heard testimony on the climate necessity defense, even if it did not get to use that testimony in making its decision.⁴²² The jury's response, collected after the trial was over, indicates the potential significance of the defense. According to the *Earth Island Journal*:

In the halls outside the courtroom, three members of the jury admitted they would have acquitted the defendants had they received a necessity instruction from the judge. They also thanked the defendants for giving them an education on climate change, agreed to support the Climate Disobedience Center in future cases, and signed up with defendant Abby Brockway to lobby the state on oil trains.⁴²³

5.4.2 Psychological Analysis

The climate necessity defense differs from the other two litigation strategies discussed above because its explicit purpose is to be a political tactic—a strategy to generate media attention and to force jury members and the larger public to weigh the harms of climate change.

⁴¹⁹ *Ibid* at 171.

⁴²⁰ *Ibid* at 172.

⁴²¹ Stephen Quirke, "Delta 5 Defendants Acquitted of Major Charges," *Earth Island Journal* (28 January 2016), online:

<http://www.earthisland.org/journal/index.php/elist/eListRead/delta_5_defendants_acquitted_of_major_charges/> accessed 29 August 2017.

⁴²² Long and Hamilton, *supra* note 412 at 172.

⁴²³ Quirke, *supra* note 421.

In *Washington v. Brockway* Judge Howard made the following comments, underscoring this element of the necessity defense:

In other cases, at least that I am aware of, the defendants were not even able to present ... their viewpoints in an effort to get this defense before the jury, and so I certainly hope that regardless of my ruling, there is some value seen in having been able to present in a public forum your points of view regarding these issues. I also would note that given the public attention that clearly is here today, that you have, regardless of whether you argued necessity or not, achieved much of what you sought to achieve.⁴²⁴

Because shifting the public discourse around climate change is such an integral part of the climate necessity defense—equal to if not more important than its substantive legal merit—it is even more important to analyze the legal strategy through a psychological and framing lens. Is the climate necessity defense telling the climate change story its proponents hope to convey to the US public and is it doing so in a compelling way? Below I will first analyze the climate necessity defense through a climate psychology lens, using insights from each of the relevant bodies of literature discussed in chapter three. Then I will evaluate the framing of the climate necessity defense in light of the insights from framing theory highlighted in chapter four.

5.4.2.1 Tragedy of the Commons

One of the key hurdles preventing the public from understanding and engaging with tragedies of the commons is the scientific uncertainty surrounding such tragedies.⁴²⁵ To make out the elements of a climate necessity defense, the Defendants in *Washington v. Brockway* relied on the testimony of a group of expert witnesses. One expert “testified about the local and regional impacts of climate change, such as reduction in snow pack, more severe weather events,

⁴²⁴ Long and Hamilton, *supra* note 412 at 173 [emphasis added].

⁴²⁵ Thompson, *supra* note 141 at 258.

wildfires, and adverse effects on fisheries.”⁴²⁶ Another expert, a medical doctor, “testified about the health impacts of crude transport and the proposed coal-shipping terminal in Bellingham, Washington.”⁴²⁷ This testimony does several things that can help overcome the cognitive hurdles preventing the public from comprehending tragedies of the commons. It provides scientific evidence that can help reduce scientific uncertainty about climate change. It also highlights the present costs of the problem of climate change, by underscoring the current dangers of and impacts of transporting crude oil through Washington. Finally, it draws a connection between the transport of crude oil and climate change. As mentioned previously, it is very difficult for the public to see how its actions affect climate change; by underscoring how local fossil fuel production and transport contribute to the dangers of climate change this instance of the climate necessity defense may help the public draw the necessary connection.

5.4.2.2 Necessity

One theme that arises again and again in the research about climate psychology and framing is that when the public perceives a risk as distant in time or space, or as uncertain, it makes it difficult for the public to take that risk seriously. In discussing why the public has difficulty engaging with tragedies of the commons, Thompson explains that when future losses are uncertain, “people often act as if there’s virtually no future risks to them at all.”⁴²⁸ One of the key features that makes it difficult to catalyze the public’s moral intuition about climate change is that its victims are seen as distant in time and space. As Markowitz and Shariff note, “past research provides indirect evidence to suggest that the more dissimilar and socially distant the victims of climate change seem to be — be they members of faraway communities or, perhaps,

⁴²⁶ Long and Hamilton, *supra* note 412 at 171.

⁴²⁷ *Ibid.*

⁴²⁸ Thompson, *supra* note 141 at 264.

future generations — the less morally obligated people will feel to act on their behalf.”⁴²⁹ Even the name of the climate necessity defense challenges the narrative that climate risks are distant in time and space. The defense hinges on proving that the Defendants “faced an imminent danger.”⁴³⁰ If allowed to present their defense to a jury, Defendants would offer expert testimony from scientists and health officials that the threat of climate change is imminent. Such testimony would present climate change as a pressing and known danger, rather than a distant and uncertain threat.

In the case of *Washington v. Brockway*, the narrative about the imminence of the danger and necessity of action on climate change resonated with the jurors. Seattle newspaper, *The Stranger*, ran an article on the litigation with the following quotes from jurors in the *Washington v. Brockway* case:

“There’s this very narrow window of time when traffic is going to exponentially increase on this toxic product coming through our neighborhoods to make a buck—while a buck is able to be made—before it closes,” Lundheim, one of the jurors, said.

He continued: “It’s not going to be available forever, this whole fossil fuel thing. China’s not going to want coal forever, they want to get off it as soon as they can. And people know that. But there’s this, ‘Quick, let’s make money here, we’ll push it through Washington.’ And I know this because I’ve been listening to this stuff all week long, so thank you for that.”

“We don’t want to be the corridor,” McGowan, his fellow juror, added.⁴³¹

⁴²⁹ Markowitz & Shariff, *supra* note 212 at 245.

⁴³⁰ Climate Necessity Defense Guide, *supra* note 405 at 1.

⁴³¹ Sydney Brownstone, “The Delta 5 Verdict Is In: Guilty and Not Guilty, But In the End No Jail Time for Blocking Oil Train,” *The Stranger* (15 January 2016), online: <<http://www.thestranger.com/blogs/slog/2016/01/15/23429598/the-delta-5-verdict-is-in-guilty-and-not-guilty>> accessed 29 August 2017.

Not only did the jurors receive a new perspective on climate change, their change of heart, as well as a description of the climate necessity defense, were covered by *The Stranger* and reached a much wider audience.

5.4.2.3 Moral Intuition

As previously mentioned, litigation can be an ideal tactic for enhancing the public's moral intuition about climate change because in pro-regulatory climate litigation plaintiffs must assign blame for injuries arising from climate change to the action of defendants. This challenges the narrative that climate change is the result of blameless action and can help the public see climate change through an ethical lens.⁴³² The climate necessity defense offers an interesting twist because climate activists actually serve as defendants in the litigation strategy. The defense forces the public to consider the morality of climate change and weigh the competing moralities of civil disobedience and government support of fossil fuel production:

Whether or not a necessity defense gets protesters off the hook, it turns the trial—deliberately—into a policy referendum rather than just a legal proceeding. Defendants pleading necessity must convince the jury that their actions were required to avoid a “greater evil”—which means, as part of that argument, the jury hears about this “greater evil” in detail. And juries are essentially asked to pass judgment on the morality of government policy and their fellow citizens' resistance to it.

This way of framing the issue allows activists to appeal to basic feelings of unfairness and injustice. “Underlying these protests is the sentiment that the government itself is acting illegally—the government's permission to the fossil fuel companies amounts to property damage and amounts to a breach of trust to the American people,” said Mary Wood, a professor at the University of Oregon School of Law and author of the book “Nature's Trust,” which advocates a more aggressive and consistent approach to environmental regulation.⁴³³

⁴³² Markowitz & Shariff, *supra* note 212 at 244.

⁴³³ Joseph E. Hamilton, “The climate made me do it!: Environmental protesters are poised to try out the ‘necessity defense,’” *The Boston Globe* (17 August 2014), online: <<https://www.bostonglobe.com/ideas/2014/08/16/the-climate-made/SyBQ7d95ZG0QoiJBH117KK/story.html>> accessed 29 August 2017.

When people view climate change through a moral lens, they are more likely to support policies addressing climate change.⁴³⁴ Thus forcing the public to see climate change through such an explicitly moral framework—in a criminal trial—may motivate them to act.

5.4.2.4 Self-Efficacy

The climate necessity defense might also activate a feeling of self-efficacy, or “a sense of being able to do anything about climate change”⁴³⁵ for members of the public. It demonstrates how a small group of people engaging in civil disobedience can have a large impact on the public debate about climate change.

5.4.3 Framing Analysis

Climate advocates trying to use the climate necessity defense have framed climate change as an imminent threat to the public and the result of immoral action. While the climate necessity defense clearly has potential to shift public discourse around climate change, the framing of climate pushed by its advocates has been countered by the government. The State’s response in *Washington v. Brockway* offers insights into the kind of counter-narratives used against the climate necessity defense. The State derides the Delta 5 as self-aggrandizing idealists, writing that: “Defendants seek to put their actions...in the same vein as those who stood up to South Africa’s Apartheid system and Jim Crow laws of the South.”⁴³⁶ It also emphasizes how the Defendants wasted time and state resources yet made no dent in GHG emissions.⁴³⁷ The State also argues that there was no necessity involved, writing:

A group of protesters walked onto clearly marked private property, ignored the no trespassing signs, stopped a train with a lit flare, and then the Defendants locked

⁴³⁴ Markowitz & Shariff, *supra* note 212 at 243.

⁴³⁵ O’Neill et al, *supra* note 231 at 414.

⁴³⁶ State’s Response, *supra* note 417 at 3.

⁴³⁷ *Ibid* at 2-4.

themselves to a tripod for the better part of eight hours, costing the [railway company] thousands of dollars. That is not necessity, it is choice.⁴³⁸

Yet even as the State pushes back against the Defendants' arguments, it admits that climate change is a danger and that the Defendants' actions were the lesser of two moral wrongs: "The State concedes that the harm of global warming and/or oil spillage and explosion is greater than the commission of two simple misdemeanors."⁴³⁹

The climate necessity defense already offers a psychologically compelling framing of climate change, but that framing might be even more compelling if presented by different defendants. For instance, having faith leaders as defendants, invoking the moral imperative of government action on climate change, could appeal to different audiences within the American public. In the same vein, having defendants who identify as Republican or conservative could enhance the narrative being offered by the climate necessity defense, appealing to more individualistic, hierarchical individuals. Additionally, as discussed above, when children and youth are parties to climate litigation they underscore the narrative that climate change is a danger threatening innocent victims who did not partake in creating the danger. By having youth as defendants presenting the climate necessity defense, the message could resonate even more profoundly with the court and the public. However, unlike the litigation being initiated by Our Children's Trust, the climate necessity defense is a defense to criminal charges. There is real legal risk to defendants who participate in climate-oriented civil disobedience, get charged by the state, and present climate necessity as their defense.

⁴³⁸ *Ibid* at 9.

⁴³⁹ *Ibid* at 4.

In sum, I have analyzed three topical litigation strategies that I think present an opportunity of overcoming the public's psychological hurdles to engaging with climate change and offer a narrative on climate change that will resonate with the public. Using the insights from research on the importance of psychological hurdles and framing to climate change communications that I discussed in chapters three and four, I have analyzed these three litigation strategies, highlighting their potential narrative strengths and drawbacks. As climate change litigation continues to proliferate, and become ever more significant in generating climate action at the federal level, climate advocates must draw from research on psychology and framing to create litigation strategies that tell the most compelling stories on climate change. In the case of the necessity defense, the defense itself has never actually been deliberated over by a jury in the US and yet it has still generated significant media coverage. Regardless of outcome, climate change lawsuits informed by theories discussed in this thesis present powerful opportunities to positively impact public and political discourse—there is a need for more research on how litigation strategies and their attendant campaigns can utilize those opportunities most effectively.

Chapter 6: Conclusion

There is scientific consensus that the world needs to take swift and profound action to mitigate the impending dangers of climate change. As one of the largest emitters of GHGs in the world, it is especially important that the US take action to reduce its emissions. Yet, the US public has not uniformly called for or supported aggressive action on climate change. A substantial portion of the US public still either does not believe in anthropogenic climate change or does not believe the threat will affect them. Given the results of the 2016 US federal election, it looks unlikely that the federal legislative or executive branches will act to address climate change in the near future. With their options limited, climate advocates are turning to the judicial branch and climate litigation to catalyze action on climate change. Climate change litigation has ballooned in the US in the last decade. There are numerous legal strategies climate advocates can employ when initiating climate change litigation.

Scholars have documented how litigation can generate media coverage, help build social movements, and shift the public dialogue around issues like climate change. Given the gap between scientific consensus on the existence and immediacy of the threat of climate change and the public's perception of the danger, it is critical to change how the public engages with the science of climate change. Litigation offers a unique opportunity to do just that in the current social and political context.

To understand how climate change litigation might tell the most compelling stories in the courtroom and in the public sphere, I analyzed research on climate psychology and climate framing. Research on why the public has trouble engaging with tragedies of the commons, why it is important to activate moral intuition on climate change, why it is important to promote

feelings of self-efficacy, and how laypeople assess environmental risks offered important insights into what effective climate change communications could look like. Research from framing theory showed how small shifts in the framing of public health issues like climate change can have profound impacts on public perceptions of who is responsible for those issues and who should act to address them.

I applied these insights to three topical litigation strategies, Climate Law in our Hands, litigation initiated by Our Children's Trust, and the climate necessity defense, to analyze how climate litigation campaigns are or are not telling stories that can shift the public dialogue and overcome the public's cognitive hurdles to engaging with climate change. I chose three strategies that I thought were using creative tactics to shift the narrative on climate change and found that by and large those strategies conformed with suggestions from the framing and psychological literature for how to make climate change communications more salient to the public.

I initially focused on climate change litigation in this thesis because I thought it was one of the few remaining tools left to climate advocates to catalyze action at the federal level in the US. However, through the course of my analysis, I found that climate change litigation presents a unique opportunity to shape public discourse and advance the climate movement. The structure of litigation, which requires plaintiffs to trace the actions of defendants to the plaintiffs' injuries—including injuries related to health, finances, and property—allows climate advocates to leverage insights from framing and psychology to make their climate change narratives as salient as possible. Underlying many of the cognitive hurdles to the public's engagement with climate change is the fact that the climate threat seems distant in time and space, and less visceral than other threats. My analysis showed how creative climate litigation strategies can challenge that narrative on climate change by, among other things, having young people as plaintiffs,

highlighting the *current* costs of climate change, and describing in vivid detail how climate change is already injuring citizens.

Another creative strategy that could help overcome the public's hurdles to engaging with climate change is involving as many citizens as possible in climate change litigation. Climate advocates can help the public recognize an often invisible collective action problem and seek consensus on fair solutions to that problem by facilitating public discussion of the threat of climate change. Even when climate advocates are acting as defendants, the structure of litigation allows them to force the court and the public to reflect on the relative wrongs of civil disobedience and government inaction on climate change. Indeed, litigation can allow climate change to be framed in moral terms, which can be highly motivating for the public. Additionally, the climate necessity defense demonstrates how a litigation strategy can influence the public discourse on climate change even when it is not successful in court.

The more public health problems, like climate change, are framed as involving involuntary, universal, environmental, and knowingly created risks, the more likely the public debate will shift towards the necessity of intervention by government and industry members. Litigation is an ideal vehicle to frame climate change in terms of all four of these dimensions. My analysis showed that litigation is particularly effective at highlighting how the risks of climate change have been involuntary imposed on certain parties, including children and future generations. It also allows climate advocates to argue that the dangers of climate change have been intentionally created by certain actors, including governments and industry members. Although the literature on climate communications is rapidly expanding, and legal scholars are beginning to draw from that literature, there is little scholarship on how psychology and framing

theories apply to climate change litigation—one of the most potent remaining tools for climate advocates.

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