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## Climate Change Litigation and Narrative: How to Use Litigation to Tell Compelling Climate Stories

Grace Nosek

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

GRACE NOSEK\*

The U.S. 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 turn 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.

Research from across the social sciences highlights key psychological challenges that can prevent the U.S. public from 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 the way in which a public health issue is framed powerfully shapes the public debate and policy prescriptions for that issue. This Article examines how climate advocates can construct their litigation messaging in light of this research to most effectively advance the climate movement in the United States.

If used effectively, the medium of litigation offers a unique opportunity to reframe climate change and overcome some of 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 the social sciences to make their climate change narratives as salient as possible.

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## INTRODUCTION

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.”<sup>1</sup> 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.”<sup>2</sup> According to the World Health Organization, climate change already causes 400,000 deaths per year.<sup>3</sup> 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.”<sup>4</sup>

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 continued economic and human development.”<sup>5</sup> 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 United States through wind, water, and solar energy in the near future.<sup>6</sup> Their results indicate “that low-cost, reliable 100% [wind, water, solar] systems should work many places worldwide.”<sup>7</sup> Thus scientific and technological strategies exist to mitigate the profound consequences and

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<sup>1</sup> IPCC, CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS 2 (2014), [https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf) [<https://perma.cc/SU7U-ASNF>] [hereinafter IPCC 2014 REPORT SUMMARY].

<sup>2</sup> *Id.* at 8.

<sup>3</sup> WHO, DID YOU KNOW? BY TAKING ACTION ON CLIMATE CHANGE YOU ARE IMPROVING YOUR HEALTH 2 (2014), <http://www.who.int/globalchange/publications/didyouknow-general-public.pdf?ua=1> [<https://perma.cc/9ZJF-4SZY>].

<sup>4</sup> THE WHITE HOUSE, FINDINGS FROM SELECT FEDERAL REPORTS: THE NATIONAL SECURITY IMPLICATIONS OF A CHANGING CLIMATE 2 (2015), [https://obamawhitehouse.archives.gov/sites/default/files/docs/National\\_Security\\_Implications\\_of\\_Changing\\_Climate\\_Final\\_051915.pdf](https://obamawhitehouse.archives.gov/sites/default/files/docs/National_Security_Implications_of_Changing_Climate_Final_051915.pdf) [<https://perma.cc/7PK5-YPFX>].

<sup>5</sup> IPCC, CLIMATE CHANGE 2014: SYNTHESIS REPORT v (2015), [https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_FINAL\\_full\\_wcover.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf) [<https://perma.cc/BL9N-ZE7V>].

<sup>6</sup> 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*, 112 PNAS 15060, 15060 (2015).

<sup>7</sup> *Id.*

risks of climate change. It is critical to build the social and political will to implement these mitigation measures.

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.”<sup>8</sup> The Australian Climate Commission called 2011–2020 the “critical decade” to address and mitigate the risks of climate change.<sup>9</sup>

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 fails to limit greenhouse gas (“GHG”) emissions to the levels climate scientists deem necessary.<sup>10</sup> Non-profit organizations, government officials, and concerned citizens use climate change litigation as one strategy to fill the gaps left by insufficient national and international regulation efforts. My Article focuses on this strategy, analyzing how litigation can be used to most effectively advance the goals of climate mitigation. My research focuses on the United States, which scholars call the “epicenter” of climate change litigation.<sup>11</sup>

The prospect of federal climate change regulation in the United States grows dimmer with the results of the 2016 election. President Donald Trump and several key members of his administration express doubt about the reality of human-caused climate change.<sup>12</sup> Most recently, President Trump announced his intention to withdraw the United States from the Paris Agreement on climate change.<sup>13</sup> Thus, climate change

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<sup>8</sup> IPCC 2014 REPORT SUMMARY, *supra* note 1, at 31.

<sup>9</sup> CLIMATE COMMISSION, THE CRITICAL DECADE 2013: CLIMATE CHANGE SCIENCE, RISKS AND RESPONSES 4 (2013), <http://www.climatecouncil.org.au/uploads/b7e53b20a7d6573e1ab269d36bb9b07c.pdf> [<https://perma.cc/7XJE-KUQS>].

<sup>10</sup> JACQUELINE PEEL & HARI M. OSOFSKY, CLIMATE CHANGE LITIGATION: REGULATORY PATHWAYS TO CLEANER ENERGY 52 (Cambridge U. Press 2015).

<sup>11</sup> *Id.* at 17.

<sup>12</sup> Alexandra Wilts, *Trump's top environment official refuses to say if President believes in climate change*, THE INDEPENDENT (June 2, 2017), <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> [<https://perma.cc/9XZA-M7SK>].

<sup>13</sup> Statement by President Trump on the Paris Climate Accord (June 1, 2017), <https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord> [<https://perma.cc/F874-Q6NB>] [hereinafter Trump's Paris Agreement Statement].

litigation is likely to play an even more important role in the United States 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 continue to document the roles climate change litigation plays 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 tangible impacts that the general public can understand and relate to better.”<sup>14</sup> Litigation can also garner media attention, which is important in shaping public perceptions of climate change. Scholars find that media coverage and mobilization by political elites and advocacy organizations are significant drivers of the American public’s concern over climate change.<sup>15</sup>

Many posit 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.<sup>16</sup> 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.<sup>17</sup> In a 2008 poll, only one percent of respondents thought climate change and the environment should be President Obama’s top priority.<sup>18</sup> 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.<sup>19</sup> 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.<sup>20</sup> But that theory recently faced challenges.<sup>21</sup> 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 believe in and prioritize climate change?

An emerging body of psychological research identifies cognitive barriers to fully understanding and accepting the threat of climate change.

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<sup>14</sup> PEEL & OSOFSKY, *supra* note 10, at 224.

<sup>15</sup> Robert J. Brulle et al., *Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the U.S., 2002–2010*, 114 CLIMACTIC CHANGE 169, 182 (2012).

<sup>16</sup> *See, e.g., id.* at 170.

<sup>17</sup> *Id.*

<sup>18</sup> Matthew C. Nisbet, *Communicating Climate Change: Why Frames Matter for Public Engagement*, 51 ENV’T: SCI. AND POL’Y FOR SUSTAINABLE DEV. 12, 14 (2009).

<sup>19</sup> Hari M. Osofsky & Jacqueline Peel, *Energy Partisanship*, 65 EMORY L.J. 695, 708 (2016).

<sup>20</sup> Nisbet, *supra* note 18, at 14.

<sup>21</sup> Nisbet, *supra* note 18, at 14–22; Osofsky & Peel, *supra* note 19, at 700.

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 United States.<sup>22</sup> Yet, there is little comprehensive analysis of how this emerging research might be applied to climate change litigation in the United States. This Article 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.

Part I of this Article will provide a brief history and scope of climate litigation in the United States. Part II will provide an overview of key features of human cognition posited to influence the public's perception of climate change, 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. Part III will analyze the importance of framing to climate change communications. Framing builds off of insights from psychology, including insights discussed in Part II, as well as work in sociology, anthropology, and political communications.<sup>23</sup> I will analyze how the framing of climate change profoundly impacts peoples' beliefs about who should be responsible for its impacts, and whether action should be taken to mitigate and prevent its potential consequences. This Part 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 Parts II and III will be used in Part IV to analyze three contemporary, high-profile climate change litigation strategies 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.

There are, of course, limitations to how much climate change litigation can advance the climate movement without corresponding executive and legislative action or public outcry.<sup>24</sup> However, this Article argues 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. 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,

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<sup>22</sup> See, e.g., Osofsky & Peel, *supra* note 19, at 695–96.

<sup>23</sup> Nisbet, *supra* note 18, at 15–16.

<sup>24</sup> See, e.g., PEEL & OSOFSKY, *supra* note 10, at 223.

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 to make their climate change narratives as salient as possible.

## I. CLIMATE CHANGE LITIGATION

*The Guardian's* March 2017 article details the spate of high-profile climate change lawsuits filed around the world.<sup>25</sup> South Africa's high court just ruled against the government in the country's first-ever climate change litigation case.<sup>26</sup> Another article from the U.S. story details how attorneys general from progressive states are suing to protect Obama-era emissions standards for vehicles.<sup>27</sup> The case portends the onslaught of climate change litigation likely to follow during the Trump administration.

Climate change litigation continues in twenty-seven countries, as well as in international tribunals.<sup>28</sup> Although the phenomenon of climate change litigation spreads, the United States still has the most climate lawsuits of any other country.<sup>29</sup> The Sabin Center for Climate Change Law at Columbia Law School partnered with Arnold & Porter LLP to track climate litigation in the United States through the U.S. Climate Change Litigation database.<sup>30</sup> As of the writing of this Article, the U.S. Climate Change Litigation database included more than 700 cases.<sup>31</sup>

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<sup>25</sup> Tessa Khan, *How climate change battles are increasingly being fought, and won, in court*, THE GUARDIAN (Mar. 8, 2017), [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](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) [<https://perma.cc/K9MT-WXQA>].

<sup>26</sup> *Id.*

<sup>27</sup> Reid Wilson, *Blue states rush to block Trump's emissions rollback*, THE HILL (Mar. 15, 2017), <http://thehill.com/homenews/state-watch/324179-blue-states-rush-to-block-trumps-emissions-rollback> [<https://perma.cc/2VS2-6LW5>].

<sup>28</sup> See *Climate Change Litigation: Non-U.S. Jurisdiction*, SABIN CTR. FOR CLIMATE CHANGE LAW & ARNOLD & PORTER KAYE SCHOLER LLP, <http://wordpress2.ei.columbia.edu/climate-change-litigation/non-us-jurisdiction/> [<https://perma.cc/XW58-DKCL>] (last visited Mar. 19, 2018).

<sup>29</sup> PEEL & OSOFSKY, *supra* note 10, at 2.

<sup>30</sup> *Climate Change Litigation: Non-U.S. Jurisdiction*, *supra* note 28.

<sup>31</sup> *Id.*

What accounts for this surge of climate change litigation in the United States? Scholars point to several factors, including the country's litigious nature, as well as the federal government's history of failure to address climate change.<sup>32</sup> This history includes the United States' "failure to ratify the Kyoto Protocol and to enact comprehensive national climate legislation."<sup>33</sup> These failures have a significant impact on global climate change. The United States produces fourteen percent of global carbon dioxide emissions, making it the second biggest emitter after China.<sup>34</sup> It also has one of the highest rates of carbon dioxide emissions per capita in the world.<sup>35</sup> The United States' 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.<sup>36</sup>

A. *History and Features of Climate Change Litigation in the United States*

Climate change litigation has a relatively long history in the United States. The first climate change case, decided in 1990, was *City of Los Angeles v. National Highway Transportation Safety Administration (NHTSA)*.<sup>37</sup> 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.<sup>38</sup> Seventeen years after that first case, in 2007, the U.S. Supreme Court issued its groundbreaking decision in *Massachusetts v. Environmental Protection Agency*.<sup>39</sup> That decision coincided with an exponential

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<sup>32</sup> PEEL & OSOFSKY, *supra* note 10, at 17.

<sup>33</sup> *Id.*

<sup>34</sup> PBL NETHERLANDS ENVTL. ASSESSMENT AGENCY & EUROPEAN COMM'N'S JOINT RES. CTR., TRENDS IN GLOBAL CO<sub>2</sub> EMISSIONS: 2016 REPORT 13 (2016), [http://edgar.jrc.ec.europa.eu/news\\_docs/jrc-2016-trends-in-global-co2-emissions-2016-report-103425.pdf](http://edgar.jrc.ec.europa.eu/news_docs/jrc-2016-trends-in-global-co2-emissions-2016-report-103425.pdf) [<https://perma.cc/KN3Z-E4WS>].

<sup>35</sup> *Each Country's Share of CO<sub>2</sub> Emissions*, UNION OF CONCERNED SCIENTISTS (Nov. 20, 2017), [http://www.ucsusa.org/global\\_warming/science\\_and\\_impacts/science/each-countrys-share-of-co2.html#.WMhptCMrJ-U](http://www.ucsusa.org/global_warming/science_and_impacts/science/each-countrys-share-of-co2.html#.WMhptCMrJ-U) [<https://perma.cc/7S2H-XCMS>].

<sup>36</sup> *See id.*

<sup>37</sup> PEEL & OSOFSKY, *supra* note 10, at 19.

<sup>38</sup> *Id.*

<sup>39</sup> Samvel Varvastian, *Climate Change Litigation, Liability and Global Climate Governance—Can Judicial Policy-making Become a Game-changer 2* (May 2016) (unpublished Berlin Conference paper, "Transformative Global Climate Governance apres Paris"), <http://www.diss.fu-berlin.de/docs/servlets/MCRFileNodeServlet/FUDOCS>

increase in U.S. climate change litigation.<sup>40</sup> As the number of climate lawsuits in the United States ballooned, so did the diversity in claims.<sup>41</sup> Several scholars worked to categorize these different climate change lawsuits and analyze their varying regulatory impacts.<sup>42</sup> The Sabin Center for Climate Change Law's U.S. Climate Litigation database sorts the claims included in U.S. climate change lawsuits<sup>43</sup> 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.<sup>44</sup> As will be discussed later in the Article, such diverse legal strategies allow 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 U.S. climate change litigation. More climate lawsuits challenge government action than the conduct of private parties.<sup>45</sup> The majority of cases focus on mitigation rather than adaptation.<sup>46</sup> Legal challenges to coal-fired power plants are the most frequently filed form of climate lawsuits.<sup>47</sup> 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.<sup>48</sup>

A full analysis of the typology of climate change lawsuits in the United States is beyond the scope of this Article. 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.

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[\\_derivate\\_00000006631/Varvastianxclimateexchange litigation.pdf](https://perma.cc/F4KS-HSPG) [https://perma.cc/F4KS-HSPG].

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* at 1–3.

<sup>42</sup> See PEEL & OSOFSKY, *supra* note 10, at 35.

<sup>43</sup> 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.

<sup>44</sup> *Climate Change Litigation: Non-U.S. Jurisdiction*, *supra* note 28.

<sup>45</sup> PEEL & OSOFSKY, *supra* note 10, at 19–20.

<sup>46</sup> See *id.* at 20.

<sup>47</sup> *Id.* at 83.

<sup>48</sup> See *id.* at 19–20.

However, those choices also have the potential to influence societal narratives about climate change.

## II. CLIMATE CHANGE PSYCHOLOGY

As previously discussed, the “IPCC” has found that the Earth’s climate system is undoubtedly warming, warming is man-made, and consequences of such warming on humanity will be profoundly deleterious.<sup>49</sup> A 2016 synthesis review found scientific consensus on anthropogenic climate change to be between ninety and one hundred percent.<sup>50</sup> Yet, many Americans still do not believe either that climate change is happening or that it is man-made.<sup>51</sup> In contrast to the IPCC’s report on climate change, most Americans perceive the warming climate as a “relatively distant threat.”<sup>52</sup> What accounts for this gap between scientific consensus and the U.S. public’s perceptions of the existence and severity of climate change? Researchers 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.<sup>53</sup> These features can impede belief in climate change.<sup>54</sup> They can also attenuate the perception of risk and shape how and whether citizens think the U.S. government should address climate change.<sup>55</sup> 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 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

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<sup>49</sup> See IPCC 2014 REPORT SUMMARY, *supra* note 1, at 2, 8.

<sup>50</sup> John Cook et al., *Consensus on consensus: A synthesis of consensus estimates on human-caused global warming*, 11 ENVTL. RES. LETTERS 1, 6 (2016).

<sup>51</sup> See ANTHONY LEISEROWITZ ET AL., CLIMATE CHANGE IN THE AMERICAN MIND: NOV. 2016, YALE PROGRAM ON CLIMATE CHANGE COMM. & GEO. MASON CENTER FOR CLIMATE CHANGE COMM. 3–4 (2017), <http://climatecommunication.yale.edu/wp-content/uploads/2017/01/Climate-Change-American-Mind-November-2016.pdf> [<https://perma.cc/A3ZB-HQGS>].

<sup>52</sup> *Id.* at 3.

<sup>53</sup> See IPCC, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE. WORKING GROUP III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 160–68 (2014), [https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc\\_wg3\\_ar5\\_chapter2.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter2.pdf) [<https://perma.cc/K2E5-2EPM>].

<sup>54</sup> See *id.*

<sup>55</sup> See *id.*

climate change.<sup>56</sup> 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.<sup>57</sup> Such insights can be used to make the public and decision-makers more receptive to climate policies.<sup>58</sup>

Scholars found that the United States has an unusually high rate of climate skepticism compared to other countries.<sup>59</sup> 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 . . . .”<sup>60</sup> 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 Part, I will discuss research from across the social sciences on several key features of human cognition that are posited to influence human perception of and engagement with climate change and climate science. I will begin by highlighting the many cognitive hurdles preventing the public from effectively addressing collective action problems like climate change. Then I will focus more specifically on risk assessment, and the role culture, ideology, and heuristics can play in the public’s perception of the risks of climate change. Finally, I will outline the importance of moral intuition to climate change perceptions. I will also analyze potential strategies to overcome these cognitive hurdles in climate change communications. Although I have broken these cognitive features into sections for ease of understanding and analysis—and because the literature often groups certain features together—the features overlap and interact in complex ways. My goal is not to be exhaustive in my analysis of climate change psychology, but to show how features of cognition can be a significant barrier to climate action.

#### A. *Cognitive Hurdles to Addressing Collective Action Problems*

The “tragedy of the commons” refers to the often-intractable problem of managing commonly held resources.<sup>61</sup> In his article, Barton H.

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<sup>56</sup> See *id.* at 160.

<sup>57</sup> See *id.*

<sup>58</sup> See *id.*

<sup>59</sup> See Stuart Capstick et al., *International trends in public perceptions of climate change over the past quarter century*, 6 WIREs CLIMATE CHANGE 35, 54 (2014).

<sup>60</sup> *Id.*

<sup>61</sup> Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons* 1 (Stan. L. Sch. John M. Olin Program in L. And Econ., Working Paper No. 187, 2000).

Thompson, Jr. explains the tragedy of the commons in the following terms: “Where resources are freely available to everyone in common, everyone has an incentive to take as much of that resource as they want, even though the collective result may be the destruction of the resource itself.”<sup>62</sup> 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.<sup>63</sup> Thompson describes three cognitive hurdles that make it difficult for humans to address collective action problems like climate change: “people are reticent to accept current losses to avoid future risks, the dilemmas are characterized by significant scientific and social uncertainty, and users heavily discount the probability and cost of future losses.”<sup>64</sup>

One of the key cognitive hurdles to addressing collective action problems is the problem of scientific and social uncertainty.<sup>65</sup> Collective action problems are often large and complex.<sup>66</sup> 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.<sup>67</sup> The issues can also engender social uncertainty about the most equitable and appropriate strategies for dividing the burden of protecting the shared resource.<sup>68</sup> Scientific uncertainty about the health of a collective resource can facilitate “wishful thinking.”<sup>69</sup> 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.”<sup>70</sup> Certain features of climate change make it particularly susceptible to scientific uncertainty.<sup>71</sup> Thompson describes climate change as affecting “hidden resources” because people cannot see climate systems and have few tangible indications of how their actions affect such systems.<sup>72</sup> As mentioned above, scientific uncertainty in the United States continues to plague climate advocacy.<sup>73</sup> Despite near universal scientific consensus on anthropogenic climate

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<sup>62</sup> *Id.*

<sup>63</sup> *See id.* at 16.

<sup>64</sup> *Id.* at Abstract.

<sup>65</sup> *See id.* at 23.

<sup>66</sup> *See id.* at 4.

<sup>67</sup> Thompson, Jr., *supra* note 61, at 23.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.* at 24.

<sup>70</sup> *Id.* at 25.

<sup>71</sup> *See id.* at 23.

<sup>72</sup> *Id.*

<sup>73</sup> Thompson, Jr., *supra* note 61, at 23.

change, a sizeable group of Americans still doubts either that the climate is warming or the warming is caused by humans.<sup>74</sup>

To address collective action issues, advocates must overcome both scientific and social uncertainty.<sup>75</sup> 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:

People 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.<sup>76</sup>

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.<sup>77</sup> One clear example is the fraught international debate over the relative responsibilities of developed and developing countries to reduce carbon emissions and mitigate climate change. A large block of developing countries consistently maintains 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 man-made climate change and they have superior economic resources.<sup>78</sup> Developed countries resist such arguments, contending that some "developing" countries are wealthy and emit a large portion of GHGs.<sup>79</sup> Such disagreement arose once again in 2015 during the negotiation of the Paris Agreement,<sup>80</sup> 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 United States from the Paris Agreement. He argued that the Agreement

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<sup>74</sup> LEISEROWITZ ET AL., *supra* note 51, at 3–4.

<sup>75</sup> See Thompson, Jr., *supra* note 61, at 23.

<sup>76</sup> *Id.* at 25–26.

<sup>77</sup> See *id.*

<sup>78</sup> See Wolfgang Obergassel et al., *Phoenix from the Ashes—An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change* 8, WUPPERTAL INST. FOR CLIMATE, ENV'T, AND ENERGY (2016).

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

requires the United States to make disproportionate GHG emissions reductions and financial sacrifices in comparison to other countries like China and India, saying:

[U]nder 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.<sup>81</sup>

President Trump's statement could be a salient message to some in the United States. Research shows that when there are several possible ways to allocate the burden for addressing a collective action issue, people assume "that the [way] that benefits *them* is the fairest."<sup>82</sup>

Another key cognitive hurdle to governing collective action problems is how people make intertemporal tradeoffs.<sup>83</sup> Humans locked in a tragedy of the commons situation "appear to extravagantly discount the future consequences of their current actions."<sup>84</sup> 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.<sup>85</sup> Thompson discusses several cognitive features that might account for why individuals heavily discount future consequences in commons dilemmas.<sup>86</sup> 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."<sup>87</sup> People believe they can outmaneuver uncertain future risks when they eventually confront them, especially when implementing preventive measures in the present is costly.<sup>88</sup>

There are several potential strategies to overcoming the cognitive hurdles preventing people from effectively governing the commons.

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<sup>81</sup> Trump's Paris Agreement Statement, *supra* note 13.

<sup>82</sup> Thompson, Jr., *supra* note 61, at 26.

<sup>83</sup> *Id.* at 20.

<sup>84</sup> *Id.* at 30.

<sup>85</sup> *Id.*

<sup>86</sup> *See id.* at 32.

<sup>87</sup> *Id.* (emphasis added).

<sup>88</sup> *See* Thompson, Jr., *supra* note 61, at 32.

Thompson describes the three steps that will be key to any solution: persuading people to believe there is a problem, and that the problem 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.<sup>89</sup>

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.<sup>90</sup> Thompson suggests that one way to reduce discounting of future risks is to describe the risks in more visceral terms.<sup>91</sup> 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.”<sup>92</sup> Another strategy is to highlight the current costs of collective action problems like climate change.<sup>93</sup> Such costs accrue long before the collapse of a shared resource.<sup>94</sup> As Thompson notes, “[e]ach of these costs of overuse is definite, rather than uncertain, and immediate, rather than distant.”<sup>95</sup>

Thompson offers several strategies for how to facilitate agreement on a potential framework solution to a collective action problem.<sup>96</sup> One is to communicate that taking no action, or keeping the status quo, is an active choice just like any other.<sup>97</sup> This is important because “[t]o most people, maintaining the status quo is the presumed natural position against which any other action must be justified.”<sup>98</sup> Thompson also notes that the most successful proffered solutions will account for the business and cultural needs of individuals.<sup>99</sup> They will also maximize individual freedom.<sup>100</sup>

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.<sup>101</sup> Experiments suggest that “[a]s resource users learn more about others’ perceptions of fairness, and the reasons for those perceptions, the user’s own view of the

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<sup>89</sup> *See id.* at 41.

<sup>90</sup> *See id.* at 41–42.

<sup>91</sup> *Id.* at 48.

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> Thompson, Jr., *supra* note 61, at 48.

<sup>95</sup> *Id.* at 49.

<sup>96</sup> *See id.*

<sup>97</sup> *See id.*

<sup>98</sup> *Id.*

<sup>99</sup> *See id.* at 50.

<sup>100</sup> Thompson, Jr., *supra* note 61, at 51.

<sup>101</sup> *Id.* at 53.

fairest result grows less biased.”<sup>102</sup> Thompson notes that “[l]awsuits 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.”<sup>103</sup>

### B. *Cognition and Risk Assessment*

How people engage with the threat of climate change depends in large part on how they assess future risks. Psychologists consistently demonstrate that how individuals process information influences how they analyze risks.<sup>104</sup> They also show 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.<sup>105</sup> 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.<sup>106</sup> These theories examine the roles of emotion, heuristics, and cultural and political worldviews in risk assessment.<sup>107</sup>

#### 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.<sup>108</sup> Heuristics can be described as judgmental rules or knowledge structures.<sup>109</sup> Serena Chen et al. give the following example of a heuristic: “Consensus opinions are correct.”<sup>110</sup> 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.’”<sup>111</sup> Daniel Kahneman describes these two systems as approximating the lay conceptions of intuition

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<sup>102</sup> *Id.*

<sup>103</sup> *Id.* at 37.

<sup>104</sup> William Boyd et al., *Law, Environment, and the “Nondismal” Social Sciences*, 8 ANNU. REV. L. & SOC. SCI. 183, 185 (2012).

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

<sup>107</sup> *Id.* at 185–90.

<sup>108</sup> Dan M. Kahan, *Ideology, motivated reasoning, and cognitive reflection*, 8 JUDGMENT AND DECISION MAKING 407, 407 (2013).

<sup>109</sup> Serena Chen et al., *Motivated heuristic and systematic processing*, 10 PSYCHOL. INQUIRY 44, 44 (1999).

<sup>110</sup> *Id.*

<sup>111</sup> Kahan, *supra* note 108, at 408.

and reasoning.<sup>112</sup> Psychologists have labeled the heuristic-driven mode of processing System 1, and the slower, low-effort mode of processing System 2.<sup>113</sup> Laypeople often rely on System 1 when processing risk, whereas experts rely on System 2 reasoning to assess societal risks.<sup>114</sup> As Daniel Kahn 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.<sup>115</sup>

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 Part IV.

## 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.<sup>116</sup> Motivated reasoning is defined as “the tendency of people to conform assessments of information to some goal or end extrinsic to accuracy.”<sup>117</sup> This theory posits that individuals’ desire to maintain their identities in communities unconsciously motivates them to reject empirical data that might threaten those identities.<sup>118</sup>

## 3. The Interaction of Heuristic-Driven Information Processing and Motivated Reasoning

There is substantial empirical support for both of the theories described above: heuristic-driven information processing and motivated

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<sup>112</sup> Daniel Kahneman, *Maps of Bounded Rationality: Psychology for Behavioral Economics*, 93 AM. ECON. REV. 1449, 1450 (2003).

<sup>113</sup> Kahan, *supra* note 108, at 408.

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> Kahan, *supra* note 108, at 408.

reasoning.<sup>119</sup> However, there is significant and important scholarly disagreement over how the two theories of information processing interact.<sup>120</sup> There are various terms for the competing theories, but the disagreement can be broadly divided into two theoretical camps.<sup>121</sup> In his article, Kahan calls the two camps the Bounded Rationality Position and the Expressive Utility Position, and I will use those terms in this Article.<sup>122</sup> The disagreement is particularly important for climate change communications, and for the purposes of this Article, because the two theories posit different strategies to effectively communicate the risks of climate change to the public.<sup>123</sup> Below, I will highlight both theories and analyze their importance to climate change communications.

a. Bounded Rationality Position

Both the Bounded Rationality Position and the Expressive Utility Position attempt to explain how heuristic-driven information processing, motivated reasoning, and ideological persuasions interact to influence societal assessments of risk.<sup>124</sup> The Bounded Rationality Position posits that the influence of heuristic-driven information processing is pivotal to explaining the variance in the public's perception of societal risks like climate change,<sup>125</sup> while the Expressive Utility Position posits that the influence of ideological and cultural persuasions is key.<sup>126</sup> In the Bounded Rationality Position 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."<sup>127</sup> 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."<sup>128</sup> The key takeaway

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<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> *Id.* at 409–10.

<sup>123</sup> *Id.* at 410.

<sup>124</sup> *Id.* at 409.

<sup>125</sup> Kahan, *supra* note 108, at 408.

<sup>126</sup> *Id.* at 408–09.

<sup>127</sup> *Id.* at 416.

<sup>128</sup> Dan M. Kahan et al., *The polarizing impact of science literacy and numeracy on perceived climate change risks*, 2 NATURE CLIMATE CHANGE 732, 733 (2012).

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 U.S. public's perception of the risks of climate change? Scholars offer several strategies, including promoting "nonpersuasive" climate change communications.<sup>129</sup> Nonpersuasive communication is strictly informational in nature and does not contain hidden policy agendas.<sup>130</sup> Scientists should also protect climate science from false characterizations.<sup>131</sup> They also suggest using different frames for climate change communications, including a risk management frame, where science helps illuminate the range of climate change risks and the consequences of various policy options.<sup>132</sup> I will discuss climate change frames in far more detail in Part III.

b. Expressive Utility Position

The Expressive Utility Position 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.<sup>133</sup> According to this account, increasing scientific literacy alone cannot overcome the cognitive biases inherent in cultural and ideological worldviews.<sup>134</sup> Indeed, in contrast to the Bounded Rationality Position, the Expressive Utility Position 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.<sup>135</sup> When applied to public perceptions of environmental risks, the Expressive Utility Position asserts:

[T]hat 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

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<sup>129</sup> Elke U. Weber & Paul C. Stern, *Public Understanding of Climate Change in the U.S.*, 66 AM. PSYCHOLOGIST 315, 323 (2011).

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> *Id.* at 323.

<sup>133</sup> Kahan, *supra* note 108, at 410.

<sup>134</sup> *Id.* at 418.

<sup>135</sup> Kahan et al., *supra* note 128, at 732–33.

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.<sup>136</sup>

One experiment found that polarization on climate change *increased* in correlation with increased quantitative analytical ability and scientific literacy.<sup>137</sup> 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 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.”<sup>138</sup>

Thus, at the individual level, it is rational for people to fit scientific evidence into their cultural worldviews.<sup>139</sup> The problem is that on the aggregate such motivated cognition can lead to inaction on serious environmental threats.<sup>140</sup> The danger is compounded when environmental risks are imbued with ideological meaning.<sup>141</sup> Scholars document a recent increase in partisan polarization in beliefs about the existence and threat of climate change.<sup>142</sup> They also argue that certain conservative organizations in the United States 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.’”<sup>143</sup>

If the Expressive Utility Position has merit, then increasing scientific understanding and analytical reasoning in the United States 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

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<sup>136</sup> *Id.* at 732.

<sup>137</sup> *Id.* at 732–33.

<sup>138</sup> *Id.* at 734.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> Kahan et al., *supra* note 128, at 734.

<sup>142</sup> Riley E. Dunlap et al., *The Political Divide on Climate Change: Partisan Polarization Widens in the U.S.*, 58 ENV'T: SCI. AND POL'Y FOR SUSTAINABLE DEV. 4, 14 (2016).

<sup>143</sup> *Id.* at 15.

key is creating a climate where believing in scientific evidence does not force individuals to depart from their ideological worldviews.<sup>144</sup> 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.”<sup>145</sup> 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.<sup>146</sup> They also suggest that market-based solutions will resonate most deeply with this group.<sup>147</sup>

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.<sup>148</sup> Even when such scientific evidence is polarized, it might be possible to lessen the polarization.<sup>149</sup> Kahan cites the swing in public perception of the dangers of smoking as an example of scientific evidence becoming less ideologically polarizing over time.<sup>150</sup> I will return to the case study of smoking in the United States in Part III to analyze how climate litigants might borrow from the tactics of anti-smoking advocates.

### C. *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.<sup>151</sup> However, they must also try to engage the public to act on climate change.<sup>152</sup> 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.<sup>153</sup> The research also underscores the particular features of

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<sup>144</sup> Kahan et al., *supra* note 128, at 734.

<sup>145</sup> *Id.*

<sup>146</sup> Boyd et al., *supra* note 104, at 192.

<sup>147</sup> *Id.*

<sup>148</sup> Kahan, *supra* note 108, at 419.

<sup>149</sup> *Id.* at 419–20.

<sup>150</sup> *Id.*

<sup>151</sup> LEISEROWITZ ET AL., *supra* note 51, at 3–4.

<sup>152</sup> *Id.*

<sup>153</sup> Ezra M. Markowitz & Azim F. Shariff, *Climate change and moral judgment*, 2 NATURE CLIMATE CHANGE 243, 243 (2012).

climate change that make this moral activation so difficult.<sup>154</sup> Below I will discuss why moral intuition is important, why climate change often fails to activate moral intuition, and what strategies might be used to generate such intuition.

There is 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.”<sup>155</sup> Research found that those who consider climate change through an ethical lens are more supportive of policies addressing climate change.<sup>156</sup> Yet, “climate change does not register, emotionally, as a wrong that demands to be righted.”<sup>157</sup> Scholars believe this failure to register as a wrong may cause people to be more complacent about addressing the threat of climate change.<sup>158</sup> In their article, Ezra M. Markowitz and Azim F. Shariff highlight six reasons why climate change does not provoke strong moral intuition.<sup>159</sup> Some relate to cognitive hurdles previously discussed, including the uncertainty of climate science creating wishful thinking, climate threats do not appear as visceral as other threats, partisan views of morality, and climate threats appear distant in time and space.<sup>160</sup> I will focus on the other two, “the blamelessness of unintentional action” and “guilty bias.”

### 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.<sup>161</sup> 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.”<sup>162</sup> This finding is especially relevant to litigation; because of the adversarial nature of lawsuits and standing requirements, plaintiffs must identify

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<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

<sup>159</sup> Markowitz & Shariff, *supra* note 153, at 243–44.

<sup>160</sup> *Id.* at 244.

<sup>161</sup> *Id.*

<sup>162</sup> *Id.*

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 Part IV I will discuss in detail the various ways to frame blame and accountability for climate change.

## 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, messaging blames people for lifestyle choices that contribute to GHG emissions.<sup>163</sup> Researchers posit that these narratives induce negative emotions like guilt and fear.<sup>164</sup> To avoid these negative emotions, “individuals often engage in biased cognitive processes to minimize perceptions of their own complicity.”<sup>165</sup> Additionally, “[t]hese biases are even more likely when individuals and communities feel incapable of meaningfully responding behaviourally.”<sup>166</sup> People evade self-blame by underestimating evidence of their own culpability and questioning the importance of the problem.<sup>167</sup> 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.”<sup>168</sup>

## 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.<sup>169</sup> Echoing strategies cited by other scholars, they suggest that communicators frame climate change in terms salient to ideological conservatives.<sup>170</sup> This might include speaking about climate change in religious terms by highlighting the importance of stewardship.<sup>171</sup> They also suggest that:

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<sup>163</sup> *Id.*

<sup>164</sup> *Id.*

<sup>165</sup> Markowitz & Shariff, *supra* note 153, at 244.

<sup>166</sup> *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.* at 245.

<sup>169</sup> *Id.* at 244.

<sup>170</sup> *Id.*

<sup>171</sup> Markowitz & Shariff, *supra* note 153, at 245.

[F]ocusing 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 administered way to bolster the moral concern of individuals over the impacts of climate change.<sup>172</sup>

A third suggested communications strategy is to focus on emotional carrots rather than sticks.<sup>173</sup> As discussed previously, using messaging to induce negative emotions, like fear and guilt, about climate change may actually backfire.<sup>174</sup> Markowitz and Shariff underscore the importance of promoting positive emotions, like “hope, pride, and gratitude” to generate enthusiasm for climate mitigation actions.<sup>175</sup> These emotions can prompt both individual and political action on climate change.<sup>176</sup>

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.<sup>177</sup> 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.’”<sup>178</sup>

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 which narratives can help individuals 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 deciding which kind of claims to bring, shaping courtroom arguments, and crafting public relations strategies that will resonate with the public. Part III will build on the research in this Part to analyze which kind of previously used climate change frames might be the most effective.

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<sup>172</sup> Markowitz & Shariff, *supra* note 153, at 245.

<sup>173</sup> *Id.*

<sup>174</sup> *Id.*

<sup>175</sup> *Id.*

<sup>176</sup> *Id.*

<sup>177</sup> Markowitz & Shariff, *supra* note 153, at 245.

<sup>178</sup> *Id.*

### III. CLIMATE CHANGE AND FRAMING

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.”<sup>179</sup> This Part builds on the psychological research discussed in the previous Part, analyzing how actors can create the most salient messaging on climate change given the cognitive hurdles discussed previously. There is some conceptual overlap among theories discussed in this Part and in Part II, but for ease of reference and analysis, I separate framing into its own Part. In this Part, 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 are 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 frequently 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.

#### A. *Framing*

Framing, which builds on insights from psychology, anthropology, political communications, and sociology,<sup>180</sup> posits that *how* an issue is presented can profoundly impact how an audience perceives that issue.<sup>181</sup> 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.”<sup>182</sup> The theory of framing includes two concepts: one operating at the macro level, sometimes called a media frame, and

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<sup>179</sup> 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*, 105 AM. J. OF PUB. HEALTH 250, 250 (2015).

<sup>180</sup> Nisbet, *supra* note 18, at 15–16.

<sup>181</sup> Dietram A. Scheufele & David Tewksbury, *Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models* 57 J. OF COMM. 9, 11 (2007).

<sup>182</sup> *Id.*

one operating at the micro level, sometimes called an individual frame.<sup>183</sup> Robert Entman states that at the core of what some call media framing is selection and salience.<sup>184</sup> 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.”<sup>185</sup> Micro or individual level frames are “mentally stored clusters of ideas that guide individuals’ processing of information.”<sup>186</sup> 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.<sup>187</sup>

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 United States. In both case studies, industry members and their political allies used frames to prevent government regulation.

### B. *Framing and Smoking*

Scholars have documented how the tobacco industry used framing to great effect over the last seventy years.<sup>188</sup> One striking example of this framing mastery is a 1976 public relations memo created for tobacco company R.J. Reynolds.<sup>189</sup> 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.”<sup>190</sup> In a section discussing smokers’ rights, the memo offers the following frame: “Freedom

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<sup>183</sup> *Id.* at 12; Dietram A. Scheufele, *Framing as a theory of media effects*, 49 J. OF COMM. 103, 106 (1999).

<sup>184</sup> Robert M. Entman, *Framing: Toward Clarification of a Fractured Paradigm*, 43 J. OF COMM. 51, 52 (1993).

<sup>185</sup> *Id.*

<sup>186</sup> Scheufele, *supra* note 183, at 107 (citing Entman, *supra* note 184, at 53).

<sup>187</sup> Scheufele, *supra* note 183, at 107.

<sup>188</sup> Friedman et al., *supra* note 179, at 250.

<sup>189</sup> See *Issues and Answers*, in R.J. REYNOLDS RECORDS: MINNESOTA DOCUMENTS 3–4 (1976), <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=pfmf0091> [<https://perma.cc/2U4P-4FAW>] (framing tobacco use as a personal use issue unfit for government regulation).

<sup>190</sup> *Id.* at 11.

of choice is an American birthright. Infringement on this right is an injustice.”<sup>191</sup> These examples become even more striking when analyzed in conjunction with the psychological research highlighted in Part II. As previously discussed, there is research showing that many in the United States subscribe to an individualistic, hierarchical worldview that makes them highly skeptical of government regulation of industry.<sup>192</sup> The public relations team for R.J. Reynolds recognized the salience of a freedom of choice frame more than forty years ago.<sup>193</sup> The tobacco industry’s use of a freedom of choice frame supported its arguments that smoking was an issue about personal responsibility.<sup>194</sup> 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.”<sup>195</sup> Thus, in the public’s mind, the onus for action to reduce smoking is placed on individuals rather than on the government.

Some argue 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.<sup>196</sup> Another scholar argues 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.<sup>197</sup> This reframing was catalyzed by research on the pervasive dangers of second-hand smoke.<sup>198</sup> 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.”<sup>199</sup> As will be discussed later, some climate advocates draw from the anti-tobacco movement’s success in an attempt to reframe the public debate around climate change.<sup>200</sup>

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<sup>191</sup> *Id.* at 14.

<sup>192</sup> Kahan et al., *supra* note 128, at 733.

<sup>193</sup> See generally *Issues and Answers*, *supra* note 189 (framing the use of tobacco as an issue involving freedom of choice).

<sup>194</sup> *Id.*

<sup>195</sup> Friedman et al., *supra* note 179, at 250.

<sup>196</sup> See, e.g., *id.* at 250–51; Jess Alderman & Richard A. Daynard, *Applying Lessons from Tobacco Litigation to Obesity Lawsuits*, 30 AM. J. OF PREVENTIVE MED. 82, 82–83 (2006).

<sup>197</sup> Regina G. Lawrence, *Framing Obesity: The Evolution of News Discourse on a Public Health Issue*, 9 HARV. INT’L J. OF PRESS & POL. 56, 59 (2004).

<sup>198</sup> *Id.*

<sup>199</sup> *Id.*

<sup>200</sup> *Id.* at 59–60.

C. *Framing and Obesity*

Framing is also very important to the policy debate around obesity in the United States. Scholars documented how the processed-food industry borrowed many tactics from the tobacco industry, including its emphasis on freedom of choice and individual responsibility frames.<sup>201</sup> In her article, 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.”<sup>202</sup> 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.<sup>203</sup> Lawrence underscores time and again the profound importance frames have in shaping the scale and scope of policy interventions in the United States.<sup>204</sup> 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 of frames critical to shaping 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

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<sup>201</sup> Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History: Big Tobacco Played Dirty and Millions Died. How similar is Big Food?*, 87 MILBANK Q. 259, 263–65 (2009).

<sup>202</sup> Lawrence, *supra* note 197, at 57.

<sup>203</sup> *Id.*

<sup>204</sup> *Id.* at 61–64 (describing competing ways of framing the obesity issue).

more likely the opinion environment is to be conducive to public policy solutions that burden powerful groups.<sup>205</sup>

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 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 Part IV draw from either one or both of those dimensions in framing the threat of climate change.

#### D. *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.”<sup>206</sup> 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.<sup>207</sup> Several of these frames, described in the previous Part exemplify 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 United States.<sup>208</sup> Osofsky and Peel describe the two profoundly conflicting climate change frames with the most prominence in the United States.<sup>209</sup> 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.”<sup>210</sup> The second frame, often used by Democrats and liberals, paints climate change as a calamitous environmental phenomenon.<sup>211</sup> These incompatible frames can entrench partisan differences and make it impossible to reach any kind of consensus.

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<sup>205</sup> *Id.* at 59 (endnotes omitted).

<sup>206</sup> Osofsky & Peel, *supra* note 19, at 722.

<sup>207</sup> Markowitz & Shariff, *supra* note 153.

<sup>208</sup> See, e.g., Mauro Bertolotti & Patrizia Catellani, *Effects of message framing in policy communication on climate change*, 44 EUR. J. OF SOC. PSYCHOL. 474 (2014).

<sup>209</sup> Osofsky & Peel, *supra* note 19, at 721.

<sup>210</sup> *Id.*

<sup>211</sup> *Id.* at 721–22.

## 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.<sup>212</sup> These frames center on economic opportunity and disaster resilience.<sup>213</sup> The U.S. public cares intensely about jobs and the economy.<sup>214</sup> 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.<sup>215</sup> 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.’”<sup>216</sup> Osofsky and Peel argue that this economic framing can resonate.<sup>217</sup> 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 opportunity that aligns with goals of the environmental and labor coalitions.”<sup>218</sup> 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.<sup>219</sup>

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<sup>212</sup> *Id.* at 702.

<sup>213</sup> *Id.* at 724.

<sup>214</sup> *Id.* at 725.

<sup>215</sup> Osofsky & Peel, *supra* note 19, at 726–27.

<sup>216</sup> *Id.*

<sup>217</sup> *Id.* at 732.

<sup>218</sup> *Id.* at 729.

<sup>219</sup> *Id.* at 729–35 (discussing how industry members, environmentalists, and labor

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.”<sup>220</sup> 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.”<sup>221</sup> 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.<sup>222</sup> As mentioned above, frames appear to be most effective when supported by a broad coalition of stakeholders. How else can climate advocates use frames most effectively? Below I will discuss several factors that can make new frames of climate change resonate more deeply with audiences.

## 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.’”<sup>223</sup> This is why climate advocates strive 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.<sup>224</sup>

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organizations have been able to find common ground by framing climate changes as economic issues).

<sup>220</sup> *Id.* at 737.

<sup>221</sup> Osofsky & Peel, *supra* note 19, at 747.

<sup>222</sup> *Id.* at 787.

<sup>223</sup> *Id.* at 721.

<sup>224</sup> *Id.* at 736–37 (suggesting that framing climate change as an issue linked to natural disasters, which threaten national security, is a way to overcome partisan divides).

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.”<sup>225</sup> Additionally, researchers are finding that the identity of those communicating climate frames can be deeply significant to the reception of those frames.<sup>226</sup> Research revealed the importance of vouchers—“knowledgeable and trusted members of a person’s cultural group who can help to build acceptance of a particular issue through ‘vouching’ for information and showing how it fits with the group’s pre-existing worldview.”<sup>227</sup> 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 Part. The key takeaway here is that there are many factors that can make climate change frames more or less salient to various audiences and 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 try 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.

### 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 United States. Both the tobacco and processed-food industries understood that freedom is a deeply compelling preexisting frame for the U.S. public, and shaped their messaging strategies accordingly. In the climate change context, Exxon Mobil (“Exxon”) and other political and media actors began using an explicit freedom frame. Below I will describe how climate advocates attempt to frame the threats of climate change and how Exxon responded with its own framing of the public debate.

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<sup>225</sup> *Id.* at 723.

<sup>226</sup> *Id.* at 723–24.

<sup>227</sup> Osofsky & Peel, *supra* note 19, at 714.

In 2015, New York State Attorney General Eric Schneiderman issued a subpoena to Exxon in relation to an investigation into whether the company misled the public and its shareholders regarding the risks of climate change.<sup>228</sup> Several other state attorneys general began their own investigations into Exxon.<sup>229</sup> 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.<sup>230</sup> 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, misled citizens about the risks of climate change.<sup>231</sup> A close ally of the AGs United for Clean Power, Former U.S. 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.”<sup>232</sup> 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.”<sup>233</sup> Several other prominent groups and individuals 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 smoking.<sup>234</sup> These include Senator Sheldon Whitehouse, who wrote a 2015 op-ed in

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<sup>228</sup> Bob Simison, *New York Attorney General Subpoenas Exxon on Climate Research*, INSIDECLIMATE NEWS (Nov. 5, 2015), <https://insideclimatenews.org/news/05112015/new-york-attorney-general-eric-schneiderman-subpoena-Exxon-climate-documents> [<https://perma.cc/Y5WK-L7QB>].

<sup>229</sup> John Schwartz, *Exxon Mobil Fights Back at State Inquiries into Climate Change Research*, N.Y. TIMES (June 16, 2016), <https://www.nytimes.com/2016/06/17/science/exxon-mobil-fights-back-at-state-inquiries-into-climate-change-research.html> [[https://web.archive.org/web/\\*/https://www.nytimes.com/2016/06/17/science/exxon-mobil-fights-back-at-state-inquiries-into-climate-change-research.html](https://web.archive.org/web/*/https://www.nytimes.com/2016/06/17/science/exxon-mobil-fights-back-at-state-inquiries-into-climate-change-research.html)].

<sup>230</sup> THE CLIMATE REALITY PROJECT, *Al Gore and New York Attorney General Eric Schneiderman Launch AGs United For Clean Power Coalition* (Mar. 30, 2016), <https://www.climateRealityproject.org/blog/al-gore-and-new-york-attorney-general-eric-schneiderman-launch-ags-united-clean-power-coalition> [<https://perma.cc/5333-T3TZ>].

<sup>231</sup> *Id.*

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*

<sup>234</sup> *See, e.g.*, UNION OF CONCERNED SCIENTISTS & CLIMATE ACCOUNTABILITY INST., *ESTABLISHING ACCOUNTABILITY FOR CLIMATE CHANGE DAMAGES: LESSONS FROM TOBACCO CONTROL* 5–6 (2012), <http://www.ucsusa.org/sites/default/files/attach/2016/04/establishing-accountability-climate-change-damages-lessons-tobacco-control.pdf> [<https://perma.cc/278K-632B>]; NAOMI ORESKES & ERIK M. CONWAY, *MERCHANTS OF DOUBT* 6–9 (2010).

which he said “[t]he parallels between what the tobacco industry did and what the fossil fuel industry is doing now are striking.”<sup>235</sup>

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 frame the risks of climate change as intentionally created by the fossil fuel industry. They also attempt 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 and other political and media actors use a competing frame to describe the actions of the AGs United for Clean Power and their allies.<sup>236</sup>

Exxon and other political and media actors use 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 in April 2016,<sup>237</sup> Exxon sued Healey in federal district court in Texas.<sup>238</sup> In court documents, Exxon alleged that 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.”<sup>239</sup> Exxon uses this narrative framing in other legal documents, website content, press releases, and social media. For example, Exxon links to articles from its corporate website like one from *The Daily Caller* entitled, “Dangerous Double Standards on Climate Change

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<sup>235</sup> Sheldon Whitehouse, *The fossil-fuel industry’s campaign to mislead the American people*, WASH. POST (May 29, 2015), [https://washingtonpost.com/opinions/the-fossil-fuel-industrys-campaign-to-mislead-the-american-people/2015/05/29/04a2c448-0574-11e5-8bda-c7b4e9a8f7ac\\_story.html?utm\\_term=.767ac2629071](https://washingtonpost.com/opinions/the-fossil-fuel-industrys-campaign-to-mislead-the-american-people/2015/05/29/04a2c448-0574-11e5-8bda-c7b4e9a8f7ac_story.html?utm_term=.767ac2629071) [<https://perma.cc/54BK-DZJ5>].

<sup>236</sup> UNION OF CONCERNED SCIENTISTS & CLIMATE ACCOUNTABILITY INST., *supra* note 234, at 27–28.

<sup>237</sup> Civil Investigative Demand No. 2016-EPD-36 from The Commw. of Mass. Office of the Att’y Gen., to Exxon Mobil Corp. (Apr. 19, 2016), <https://www.documentcloud.org/documents/2862196-Exxon-Subpoena-Massachusetts.html> [<https://perma.cc/NU9M-K28X>].

<sup>238</sup> David Hasemyer, *Exxon Sues a Second Attorney General To Fight Off Climate Fraud Probe*, INSIDECLIMATE NEWS (June 16, 2016), <https://insideclimatenews.org/news/16062016/exxon-sues-massachusetts-attorney-general-climate-change-fraud-investigation> [<https://perma.cc/R9PH-UMDT>].

<sup>239</sup> ExxonMobil’s Complaint for Declaratory and Injunctive Relief at ¶ 87, *Exxon Mobil Corp. v. Healey*, No. 4:16-cv-00469-Y (N.D. Tex. June 15, 2016).

and Free Speech.”<sup>240</sup> Other articles linked to include “Exxon Mobil has a Right to Its Opinion,” and “Consumer Protection: Not a Bully’s Weapon on Free Speech.”<sup>241</sup>

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.”<sup>242</sup> Exxon also tweeted: “State AG allegations against [Exxon Mobil] are assault on free speech and scientific inquiry.”<sup>243</sup> Journalists Paul Barrett and Matthew Philips detailed how Exxon 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.<sup>244</sup> They highlight that:

[T]he 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.<sup>245</sup>

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, saying they infringed upon the

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<sup>240</sup> EXXON MOBIL CORP., *Understanding the #ExxonKnew “controversy,”* <http://www.exxonmobil.eu/en-eu/policy/global-issues/climate/understanding-the-exxonknew-controversy> [<https://perma.cc/24JG-XMMS>].

<sup>241</sup> *Id.*

<sup>242</sup> Suzanne McCarron, ExxonMobil Vice President of Pub. and Gov. Aff., *ExxonMobil responds to state AGs* (Mar. 29, 2016), <http://www.ExxonMobilperspectives.com/2016/03/29/ExxonMobil-responds-to-state-ags/?sf23338395=1> [<https://perma.cc/X8QM-QNVZ>].

<sup>243</sup> Ben Jervey, *State Investigations Into What Exxon Knew Double, and Exxon Gets Defensive*, DESMOG BLOG (Apr. 1, 2016), <https://www.desmogblog.com/2016/04/01/more-state-attorneys-general-investigate-exxon-exxon-gets-defensive> [<https://perma.cc/P6P2-3A2Z>].

<sup>244</sup> Paul Barrett & Matthew Philips, *Can Exxon Mobil be Found Liable for Misleading the Public on Climate Change?*, BLOOMBERG BUSINESSWEEK (Sep. 7, 2016), <https://www.bloomberg.com/news/articles/2016-09-07/will-exxonmobil-have-to-pay-for-misleading-the-public-on-climate-change> [<https://perma.cc/9A5A-KXLN>].

<sup>245</sup> *Id.*

freedom of speech rights of climate skeptics.<sup>246</sup> Representative Lamar Smith of Texas, chair of the Committee on Science, Space, and Technology of the U.S. House of Representatives, wrote to Attorney General 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.<sup>247</sup> In his letter, Representative Smith described the coalition's actions as "a coordinated attempt to attack the First Amendment rights of American citizens and their ability to fund and conduct scientific research free from intimidation and threats of prosecution."<sup>248</sup>

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 United States. 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 Part, 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.

#### IV. ANALYSIS OF TOPICAL CLIMATE CHANGE LITIGATION

As discussed in Part I, the number of climate change lawsuits has ballooned in the last decade. Those suing to advance climate change

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<sup>246</sup> Letter from Luther Strange, Ala. Att'y Gen., to Fellow Att'ys Gen. (June 15, 2016), <https://assets.documentcloud.org/documents/2862197/AG-Coalition-Resp-Letter-2016-06-15.pdf> [<https://perma.cc/S8RL-RKJL>].

<sup>247</sup> Letter from the H.R. Comm. on Sci., Space, and Tech. to Eric Schneiderman, Att'y Gen. of N.Y. 1 (May 18, 2016), <https://science.house.gov/sites/republicans.science.house.gov/files/documents/06.17.2016%20SST%20Letter%20to%20AG%20Schneiderman.pdf> [<https://perma.cc/Z7LG-C9T5>].

<sup>248</sup> *Id.* at 4.

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 Article 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, and 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: (1) the Climate Law in our Hands campaign, (2) atmospheric trust litigation initiated by Our Children's Trust, and (3) the climate necessity defense.

A. *Climate Law in Our Hands*

Climate Law in our Hands is a campaign initiated by West Coast Environmental Law ("WCEL"), an environmental law organization operating out of Vancouver, British Columbia.<sup>249</sup> I have described it as a campaign rather than a lawsuit because, as of the writing of this Article, 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 of the social movement.<sup>250</sup> 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."<sup>251</sup> 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."<sup>252</sup> They highlight

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<sup>249</sup> *About*, W. COAST ENVTL. L., <http://www.climatelawinourhands.org/wcel> [https://perma.cc/V39V-K9UA] (last visited Mar. 19, 2018).

<sup>250</sup> *Climate Law in our Hands in British Columbia*, W. COAST ENVTL. L., <http://climatelawinourhands.org/climatelawinourhandsbc/> [https://perma.cc/4M4K-DBM3] (last visited Mar. 19, 2018).

<sup>251</sup> *Demand Accountability*, W. COAST ENVTL. L., <http://www.climatelawinourhands.org/demand-accountability/> [https://perma.cc/89SP-JQJV] (last visited Mar. 19, 2018).

<sup>252</sup> *Id.*

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.”<sup>253</sup>

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.<sup>254</sup> This step produces important evidence for step three, a class action against fossil fuel companies.<sup>255</sup> 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.<sup>256</sup>

On its website, the campaign lays out a publicly available road-map of climate change litigation that could be launched if fossil fuel companies do not agree to pay their fair share of community costs from climate impacts.<sup>257</sup> 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.<sup>258</sup> 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.<sup>259</sup> 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.”<sup>260</sup> 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.<sup>261</sup> 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,

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<sup>253</sup> *Id.*

<sup>254</sup> *Climate Law in our Hands in British Columbia*, *supra* note 250.

<sup>255</sup> *Id.*

<sup>256</sup> *A BC class action against climate polluters*, W. COAST ENVTL. L., <http://www.climatelawinourhands.org/bcclassaction> [<https://perma.cc/QH5G-VZUS>] (last visited Mar. 19, 2018).

<sup>257</sup> *Id.*

<sup>258</sup> *Id.*

<sup>259</sup> *Id.*

<sup>260</sup> *Id.*

<sup>261</sup> *Id.*

including Exxon Mobil, in federal district court.<sup>262</sup> 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.<sup>263</sup> 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.<sup>264</sup> 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 argues that this should make it easier for local governments to prove causation in their potential nuisance class action.<sup>265</sup>

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.<sup>266</sup>

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 British Columbia's class action rules.<sup>267</sup>

#### 1. Psychological Analysis

Many features of WCEL's Climate Law in our Hands campaign relate to the research in climate psychology and framing discussed in

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<sup>262</sup> *Native Village of Kivalina v. Exxon Mobil Corp.*, 696 F.3d 849, 853 (9th Cir. 2012).

<sup>263</sup> *Id.*

<sup>264</sup> *Id.* at 854.

<sup>265</sup> *A BC class action against climate polluters*, *supra* note 256.

<sup>266</sup> *Id.*

<sup>267</sup> *Id.*

Parts II and III. I will draw from the insights in those Parts 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 Part II: the cognitive hurdles to addressing tragedies of the commons, the features of laypeople's risk assessment, and activating moral intuition on climate change. Then I will evaluate the frames used by the campaign in light of the insights from framing theory highlighted in Part III.

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.<sup>268</sup> 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.”<sup>269</sup> 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.<sup>270</sup> 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 discounting of future risks.<sup>271</sup> 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

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<sup>268</sup> Thompson, Jr., *supra* note 61, at 267.

<sup>269</sup> *Flex your local muscles and hold fossil fuel companies accountable!*, W. COAST ENVTL. L. (Jan. 31, 2017), <https://www.wcel.org/blog/flex-your-local-muscles-and-hold-fossil-fuel-companies-accountable> [<https://perma.cc/P3BP-SPZH>] [hereinafter *Flex local muscles*].

<sup>270</sup> *Joint sign-on letter to BC’s local governments*, W. COAST ENVTL. L. (Jan. 25, 2017), <http://www.climatelawinourhands.org/a-challenge-to-bc-local-governments/> [<https://perma.cc/7CWX-9DAT>].

<sup>271</sup> Thompson, Jr., *supra* note 61, at 274.

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.”<sup>272</sup> In the United States, the causation prong of standing analysis has frequently been an insurmountable bar for climate change litigants.<sup>273</sup>

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.”<sup>274</sup> 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.”<sup>275</sup> By centering on the costs communities are incurring now to prepare for future climate impacts, *Climate Law in our Hands* focuses public 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 Part II, 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

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<sup>272</sup> *A BC class action against climate polluters*, *supra* note 256.

<sup>273</sup> See, e.g., Corey Moffat, *Establishing Causation in Private Party Climate Change Suits: Correcting the Mistakes of Washington Environmental Council v. Bellon*, 44 *Envtl. L.* 959, 964–66 (2014).

<sup>274</sup> *A BC class action against climate polluters*, *supra* note 256.

<sup>275</sup> Thompson, Jr., *supra* note 61, at 274 (emphasis in original).

research showing that people with hierarchical, individualistic worldviews greatly value industry.<sup>276</sup> 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 adaptation 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 “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.”<sup>277</sup>

Part II 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. According to the Expressive Utility Position, individuals predisposed to support industry can be unconsciously motivated to dismiss evidence that does not fit with their support of industry.<sup>278</sup>

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.”<sup>279</sup> 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.

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<sup>276</sup> Kahan et al., *supra* note 128, at 733.

<sup>277</sup> Thompson, Jr., *supra* note 61, at 277.

<sup>278</sup> Kahan et al., *supra* note 128, at 733–34.

<sup>279</sup> Kahan, *supra* note 108, at 408.

As discussed in Part II, 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 thus must 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.<sup>280</sup>

As Markowitz and Shariff noted, “recognizing a harmful event as the product of an intentional agent . . . is a highly motivating cue for corrective action.”<sup>281</sup> The Climate Law in our Hands 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

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<sup>280</sup> *Joint sign-on letter to BC's local governments*, *supra* note 270.

<sup>281</sup> Markowitz & Shariff, *supra* note 153, at 244.

challenging for vulnerable groups—the poor, Indigenous people, women and children.”<sup>282</sup> 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.<sup>283</sup> 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.”<sup>284</sup> 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.<sup>285</sup>

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

Researchers have highlighted the importance of self-efficacy, the “sense of being able to do anything about climate change,”<sup>286</sup> to climate change communications. Sometimes by highlighting the magnitude of the

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<sup>282</sup> *Joint sign-on letter to BC’s local governments*, *supra* note 270.

<sup>283</sup> Markowitz & Shariff, *supra* note 153, at 244.

<sup>284</sup> *Id.*

<sup>285</sup> *Why demand accountability from fossil fuel companies?*, W. COAST ENVT'L L., <http://www.climatelawinourhands.org/why-demand-accountability/> [https://perma.cc/A9GW-PJ9V] (last visited Mar. 19, 2018) (emphasis in original).

<sup>286</sup> Saffron J. O’Neill et al., *On the use of imagery for climate change engagement*, 23 GLOBAL ENVT'L CHANGE 413, 414 (2013).

problem of climate change, communicators actually make people feel disempowered to address it.<sup>287</sup> 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.<sup>288</sup>

## 2. Framing Analysis

Analyzing the Climate Law in Our Hands campaign through the lens of the framing literature highlighted in Part III 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.<sup>289</sup> As previously mentioned, 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.<sup>290</sup>

Lawrence outlines factors that make a public health frame more salient to the public, including whether the health risk is portrayed as intentionally created.<sup>291</sup> 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."<sup>292</sup>

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<sup>287</sup> *Id.* at 419.

<sup>288</sup> *Flex local muscles*, *supra* note 269.

<sup>289</sup> *See, e.g.*, Friedman et al., *supra* note 179; Brownell & Warner, *supra* note 201.

<sup>290</sup> Friedman et al., *supra* note 179, at 250.

<sup>291</sup> Lawrence, *supra* note 197, at 59.

<sup>292</sup> *A BC class action against climate polluters*, *supra* note 256.

Osofsky and Peel emphasize that the way a frame is communicated can be just as important as the frame itself.<sup>293</sup> Vouchers, “knowledgeable and trusted members of a person’s cultural group,” are especially effective at communicating frames.<sup>294</sup> 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 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.”<sup>295</sup>

Osofsky and Peel underscore the centrality of economics in the framing of climate change.<sup>296</sup> 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,”<sup>297</sup> it is possible to see how other groups might reframe action on climate change and the campaign as producing “dire economic consequences.”<sup>298</sup> 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.<sup>299</sup> They recommend framing adaptation steps “in terms of disaster resilience and response rather than climate change itself.”<sup>300</sup> Osofsky and Peel are suggesting communication techniques for an American audience, and Climate Law in our

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<sup>293</sup> Osofsky & Peel, *supra* note 19, at 723.

<sup>294</sup> *Id.* at 714.

<sup>295</sup> *Joint sign-on letter to BC’s local governments*, *supra* note 270.

<sup>296</sup> Osofsky & Peel, *supra* note 19, at 721.

<sup>297</sup> *Why demand accountability from fossil fuel companies?*, *supra* note 285.

<sup>298</sup> Osofsky & Peel, *supra* note 19, at 721.

<sup>299</sup> *Id.* at 724.

<sup>300</sup> *Id.* at 737.

Hands is currently focused in Canada, but it may be helpful to the campaign to focus even more on disaster resilience to build 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 (“the 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 carbon dioxide (CO<sub>2</sub>),”<sup>301</sup> 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.<sup>302</sup> 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.”<sup>303</sup> 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.”<sup>304</sup> There are three key ways the Friends of Science 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 United States. 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.

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<sup>301</sup> *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*, PRWEB (Feb. 8, 2017), <http://www.prweb.com/releases/2017/02/prweb14053101.htm> [<https://perma.cc/HPL8-2GB8>].

<sup>302</sup> *Id.*

<sup>303</sup> *Id.*

<sup>304</sup> *Id.*

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.<sup>305</sup> 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.<sup>306</sup> 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."<sup>307</sup> 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."<sup>308</sup>

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.

### *B. Our Children's Trust*

The U.S. non-profit Our Children's Trust has been filing some of the most cutting edge climate change litigation in recent years. The organization has launched or supported lawsuits based in state law across the United States; their legal strategy centers on "secur[ing] the legal right to a stable climate and healthy atmosphere."<sup>309</sup> They also partner with

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<sup>305</sup> *What to do when everyone is the problem*, OIL SANDS QUESTION AND RESPONSE (Oct. 30, 2014), <http://osqar.suncor.com/2014/10/what-to-do-when-everyone-is-the-problem.html> [<https://perma.cc/J98B-M77Q>].

<sup>306</sup> *Id.*

<sup>307</sup> *Id.*

<sup>308</sup> *Id.*

<sup>309</sup> *State Legal Actions*, OUR CHILDREN'S TRUST, <https://www.ourchildrenstrust.org/state-legal-actions/> [<https://perma.cc/3GU2-VY62>] (last visited Mar. 19, 2018).

youth and attorneys around the world to help advance climate change lawsuits in other jurisdictions.<sup>310</sup> 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.”<sup>311</sup> Finally, Our Children’s Trust has supported a climate change lawsuit at the federal level, *Juliana v. U.S.*, which will be the focus of my analysis.

1. *Juliana v. U.S.*

In August 2015, twenty-one youths, along with prominent climate scientist Dr. James E. Hansen and the non-profit Earth Guardians, filed a lawsuit against the U.S. government in the U.S. District Court for the District of Oregon.<sup>312</sup> The Plaintiffs presented four claims for relief, alleging that the U.S. 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.”<sup>313</sup> I will discuss each claim in turn below.

a. Plaintiffs’ Claims

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

The Fifth Amendment to the U.S. Constitution states that “no person shall . . . be deprived of life, liberty, or property, without due process of law.”<sup>314</sup> In their complaint the Plaintiffs allege that their:

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<sup>310</sup> *Global Legal Actions*, OUR CHILDREN’S TRUST, <https://www.ourchildrenstrust.org/global-legal-actions/> [https://perma.cc/46LC-9SGJ] (last visited Mar. 19, 2018).

<sup>311</sup> *Grassroots Legal Actions*, OUR CHILDREN’S TRUST, <https://www.ourchildrenstrust.org/grassroots-legal-actions/> [https://perma.cc/Y3MR-NMQW] (last visited Mar. 19, 2018).

<sup>312</sup> Press Release, Our Children’s Trust & Earth Guardians, America’s Youth File Landmark Climate Lawsuit Against U.S. Government and President (Aug. 12, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/575adceb4c2f8523de7286a2/1465572588513/15.08.12FederalClimateLawsuitPressRelease.pdf> [https://perma.cc/868X-ZMZX] [hereinafter Youth File Climate Lawsuit].

<sup>313</sup> Pl.’s First Am. Compl. for Declaratory and Injunctive Relief ¶¶ 277–310, *Juliana v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/575add014c2f8523de728730/1465572614596/YouthAmendedComplaintAgainstUS.pdf> [https://perma.cc/L6CM-V72S] [hereinafter Youth Complaint].

<sup>314</sup> U.S. CONST. amend. V.

substantive Fifth Amendment rights have been infringed because Defendants directly caused atmospheric CO<sub>2</sub> to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs. The present CO<sub>2</sub> concentration and continuing CO<sub>2</sub> 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.<sup>315</sup>

Essentially, the Plaintiffs argue that, despite knowing how dangerous climate change could be to its citizens, the U.S. 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 property."<sup>316</sup> Throughout the complaint, the Plaintiffs underscore that the U.S. 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."<sup>317</sup>

#### 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 youth and future generations as suspect classes under an equal protection analysis, and that both youth and future generations have had their fundamental rights violated by the U.S. 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

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<sup>315</sup> Youth Complaint, *supra* note 313, ¶ 279.

<sup>316</sup> *Id.*

<sup>317</sup> *Id.* ¶ 280.

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.<sup>318</sup>

In making out their claim, the Plaintiffs argue that laws that discriminate against youth and future generations should trigger strict scrutiny from the court.<sup>319</sup> They provide an example of a discriminatory law, the Energy Policy Act, and explain why they believe it is discriminatory:

The Energy Policy Act's mandatory authorization for export and import of natural gas discriminates against Plaintiffs by exacerbating already-dangerous levels of atmospheric CO<sub>2</sub> 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 CO<sub>2</sub> 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.<sup>320</sup>

### 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 United States.<sup>321</sup> They contend

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<sup>318</sup> *Id.* ¶ 294.

<sup>319</sup> *Id.* ¶¶ 293–97.

<sup>320</sup> *Id.* ¶ 299.

<sup>321</sup> Youth Complaint, *supra* note 313, ¶ 303.

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.”<sup>322</sup> 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 United States from dangerous climate change is fundamental to safeguarding other rights that are explicitly protected by the Constitution.

#### Claim 4: Violation of the Public Trust Doctrine

In their fourth and final claim, the Plaintiffs argue that under the public trust doctrine, the U.S. government is a sovereign trustee of the US’s natural resources, which are essential to the well-being of U.S. citizens. Accordingly, the government has a duty to keep from substantially impairing those resources.<sup>323</sup> 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.<sup>324</sup>

The Plaintiffs contend that by supporting, subsidizing, and approving fossil fuel production and use in the United States, the government has failed in its duty as sovereign trustee.<sup>325</sup>

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<sup>322</sup> *Id.*

<sup>323</sup> *Id.* ¶¶ 308–09.

<sup>324</sup> *Id.* ¶ 308.

<sup>325</sup> *Id.* ¶ 310.

Beyond the complaint itself, the press release accompanying the initial filing of the complaint in *Juliana v. U.S.* 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 Indian River, 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 Zepher, 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.<sup>326</sup>

b. Government and Industry Response

In its motion to dismiss the Plaintiffs' lawsuit, the U.S. 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.<sup>327</sup> This Article 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 U.S. 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

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<sup>326</sup> Youth File Climate Lawsuit, *supra* note 312, at 2.

<sup>327</sup> Fed. Defs.' Mem. of Points and Authorities in Supp. of their Mot. to Dismiss at 1, *Juliana v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/576195bd2fe1316f09d2ef81/1466013119008/15.11.17.Fed+MTD+Memo.pdf> [<https://perma.cc/4HB2-554N>].

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 U.S. 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.'"<sup>328</sup>

In its motion to dismiss, the U.S. government argues that the Plaintiffs have not established a sufficient causal chain between their alleged injury and the U.S. government's actions.<sup>329</sup>

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

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.<sup>330</sup>

The National Association for Manufacturers, the American Fuel & Petrochemical Manufacturers, and the American Petroleum Institute intervened as defendants in *Juliana v. U.S.* They offer similar legal arguments to the U.S. 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

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<sup>328</sup> *Id.* at 7–8.

<sup>329</sup> *Id.* at 11–12.

<sup>330</sup> *Id.* at 14–15.

their permitting, authorizing, and subsidizing of fossil fuels” and take whatever other actions are “necessary” to drastically reduce greenhouse gas emissions in the U.S. to levels these plaintiffs deem acceptable.<sup>331</sup>

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.”<sup>332</sup> 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 U.S. economy.

c. Legal Status of *Juliana v. U.S.*

In a groundbreaking November 2016 ruling, U.S. District Court Judge Anne Aiken denied the U.S. government’s and the Intervenor-Defendants’ motions to dismiss in *Juliana v. U.S.*, clearing the way for the case to proceed to trial.<sup>333</sup> 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.<sup>334</sup>

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<sup>331</sup> Mem. in Supp. of Intervenor-Defs.’ Mot. to Dismiss at 1, *Juliana v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/576195a62fe1316f09d2eeba/1466013096665/15.11.12.IntervenorMTD.Memo.pdf> [<https://perma.cc/S7ZR-VU5H>].

<sup>332</sup> *Id.* at 2.

<sup>333</sup> Opinion and Order at 3, *Juliana v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/5824e85e6a49638292ddd1c9/1478813795912/Order+MTD.Aiken.pdf> [<https://perma.cc/FMX8-GWZD>].

<sup>334</sup> Press Release, Our Children’s Trust & Earth Guardians, Victory for America’s

After the Defendants' motions to dismiss were denied, the Intervenor-Defendants filed a motion to withdraw from the case.<sup>335</sup> Judge Coffin granted the Intervenor-Defendants' request to withdraw.<sup>336</sup> 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 Article, the case was set for trial in February 2018.<sup>337</sup>

## 2. Psychological Analysis

The fact that the Court in *Juliana v. U.S.* 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 U.S. public?

As previously discussed, laypeople often rely on simple heuristics, or judgment rules, when assessing environmental risks.<sup>338</sup> This can make laypeople underestimate the risks of less visceral or emotionally charged dangers, like climate change.<sup>339</sup> *Juliana v. U.S.* might 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 coverage<sup>340</sup> 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

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Youth—Constitutional Climate Lawsuit against U.S. to Proceed (Nov. 10, 2016), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/5824e5cd8419c279f4469e8d/1478813133942/2016.11.10Aiken+Decision+PR+.pdf> [<https://perma.cc/8MRY-HXVQ>].

<sup>335</sup> Order at 1, *Juliana v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), <https://static1.squarespace.com/static/571d109b04426270152febe0/t/59541c8db3db2b21ddf4c17e/1498684558660/2017.07.28+Order+Granting+Motions+to+Withdraw-Setting+Trial+Date.pdf> [<https://perma.cc/JSE2-9DC6>].

<sup>336</sup> *Id.*

<sup>337</sup> *Id.* at 5.

<sup>338</sup> Kahan, *supra* note 108, at 408.

<sup>339</sup> *Id.*

<sup>340</sup> See, e.g., Coco McPherson, *High-Stakes Climate Lawsuit Led By Youth Turns Its Attention to Trump*, ROLLING STONE (Mar. 28, 2017), <http://www.rollingstone.com/politics/features/youth-led-high-stakes-climate-lawsuit-shifts-focus-to-trump-w473224> [<https://perma.cc/XE82-TQ3Y>]; Matthew O. Berger, *Teens challenge US government for not protecting them from climate change*, THE GUARDIAN (Mar. 9, 2016), <https://www.theguardian.com/us-news/2016/mar/09/climate-change-teens-sue-us-government-failing-protect> [<https://perma.cc/43X3-QMUN>].

change is affecting and will continue to affect them. For example, in alleging how climate change will affect Xiuhtezcatl Tonatiuh M., a fifteen-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.<sup>341</sup>

The press release accompanying the filing of the complaint also underscores the threats faced by the youth Plaintiffs.<sup>342</sup> As will be discussed later in this Part, 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 U.S. public, the case might exacerbate the cognitive features underlying motivated reasoning. As Dan Kahan noted, individuals with a hierarchical, individualistic worldview "intuitively perceive that widespread acceptance of [environmental] risks would license restrictions on commerce and industry."<sup>343</sup> 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."<sup>344</sup> In doing so, the Plaintiffs are signaling that their case could have profound and far-reaching consequences for the fossil fuel industry in the United States. 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.

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<sup>341</sup> Youth Complaint, *supra* note 313, ¶¶ 20–21.

<sup>342</sup> Youth File Climate Lawsuit, *supra* note 312.

<sup>343</sup> Kahan et al., *supra* note 128, at 733.

<sup>344</sup> Youth Complaint, *supra* note 313, ¶ 130.

Several features of the Plaintiffs' case in *Juliana v. U.S.* 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.<sup>345</sup> 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. U.S.*, the Plaintiffs emphatically and repeatedly point out the intentionality and immorality of the U.S. government's actions. For example, the press release accompanying the complaint cites one of the Plaintiffs as saying:

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.<sup>346</sup>

This narrative may be even more salient to the U.S. public because of the identity of the Plaintiffs. The Plaintiffs are young people from across the United States; the youngest Plaintiff, Levi D., was only eight years old at the time the complaint was filed.<sup>347</sup> 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.<sup>348</sup> To overcome this disconnect, they suggest that climate communicators employ techniques "that increase individuals' affinity and identification with future generations."<sup>349</sup> The Plaintiffs' complaint outlines in vivid detail how youth and children from all across the United States are already feeling the impacts of climate change and how those impacts will worsen in the future.<sup>350</sup> The young

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<sup>345</sup> Markowitz & Shariff, *supra* note 153, at 244.

<sup>346</sup> Youth File Climate Lawsuit, *supra* note 312.

<sup>347</sup> Youth Complaint, *supra* note 313, ¶ 81.

<sup>348</sup> Markowitz & Shariff, *supra* note 153, at 245.

<sup>349</sup> *Id.*

<sup>350</sup> Youth Complaint, *supra* note 313, ¶¶ 16–91.

Plaintiffs also appear in interviews.<sup>351</sup> In doing so, they make it harder to dismiss the victims of climate change as nameless, faceless individuals.

### 3. Framing Analysis

According to the framing insights discussed in Part III, 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. 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).'"<sup>352</sup> 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 CO<sub>2</sub>."<sup>353</sup> 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.<sup>354</sup> 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 U.S. 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.<sup>355</sup> 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,

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<sup>351</sup> See, e.g., DEMOCRACY NOW, *Landmark Climate Lawsuit: Meet the Youth Activists Suing the U.S. Government & Fossil Fuel Industry* (Apr. 14, 2016), [https://www.democracynow.org/2016/4/14/landmark\\_climate\\_lawsuit\\_meet\\_the\\_youth](https://www.democracynow.org/2016/4/14/landmark_climate_lawsuit_meet_the_youth) [<https://perma.cc/PY4U-HCHU>].

<sup>352</sup> Lawrence, *supra* note 197, at 59.

<sup>353</sup> Youth Complaint, *supra* note 313, ¶¶ 294, 296.

<sup>354</sup> See, e.g., Lawrence, *supra* note 197, at 59.

<sup>355</sup> *Id.*

“[t]he 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.”<sup>356</sup>

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.”<sup>357</sup>

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 United States, 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.

### C. *The Climate Necessity Defense*

Although this Article 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 on the US tradition of civil disobedients presenting a necessity defense.<sup>358</sup> The necessity

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<sup>356</sup> *Id.*

<sup>357</sup> Osofsky & Peel, *supra* note 19, at 721.

<sup>358</sup> John Alan Cohan, *Civil Disobedience and the Necessity Defense*, 6 PIERCE L. REV. 111, 111 (2007).

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.”<sup>359</sup> Activists have recently begun using the defense in the context of climate change in the United States and other jurisdictions.<sup>360</sup> The climate necessity defense has never yet succeeded in the United States, although activists are hopeful that it will soon.<sup>361</sup> So what does the defense entail? The Climate Defense Project, a non-profit delivering legal support for climate activists,<sup>362</sup> 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.<sup>363</sup>

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.<sup>364</sup> 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.”<sup>365</sup> Nonetheless, the climate necessity defense is an important legal strategy to focus on in this Article 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

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<sup>359</sup> *Id.*

<sup>360</sup> See, e.g., CLIMATE DEF. PROJECT, *Climate Necessity Defense Case Guide: A Guide for Activists and Attorneys*, <https://climatedefenseproject.org/wp-content/uploads/2017/03/CDP-ClimateNecessityOutcomes-Feb-8-2017.pdf> [<https://perma.cc/2CPB-SPPW>] (last visited Mar. 19, 2018) [hereinafter *Climate Necessity Defense Guide*].

<sup>361</sup> *The Climate Necessity Defense: A Legal Tool for Climate Activists*, CLIMATE DISOBEDIENCE CTR., <http://www.climatedisobedience.org/necessitydefense> [<https://perma.cc/74VS-FVC6>] (last visited Mar. 19, 2018)

<sup>362</sup> CLIMATE DEF. PROJECT, *About*, <https://climatedefenseproject.org/about/> [<https://perma.cc/JFM6-H6NJ>] (last visited Mar. 19, 2018).

<sup>363</sup> *Climate Necessity Defense Guide*, *supra* note 360, at 1.

<sup>364</sup> *Id.*

<sup>365</sup> Cohan, *supra* note 358, at 112.

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.”<sup>366</sup> To provide a concrete example of the climate necessity defense, I will discuss *Washington v. Brockway* or the “Delta Five” case.

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.<sup>367</sup> The five climate activists were charged with obstructing or delaying a train and second-degree criminal trespass.<sup>368</sup> The Defendants wanted to present a climate necessity defense at trial.<sup>369</sup> 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:

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.<sup>370</sup>

There was a flurry of pretrial and trial actions centering on whether the Defendants could use the climate necessity defense at trial.<sup>371</sup> 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:

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<sup>366</sup> *Climate Necessity Defense Guide*, *supra* note 360, at 1.

<sup>367</sup> Lance N. Long & Ted Hamilton, *Case Comment—Washington v. Brockway: One Small Step Closer to Climate Necessity*, 13 MCGILL J. OF SUSTAINABLE DEV. L. 153, 153 (2017).

<sup>368</sup> *Id.*

<sup>369</sup> *Id.* at 168.

<sup>370</sup> Order Denying Def. Motion to Allow Aff. Def. Of Necessity and Expert Witness Testimony at 4, *Washington v. Brockway*, Case No. 5053A-14D (Snohomish Cty. Dist. Ct. Wash. Jan. 13, 2016), <http://www.desmogblog.com/sites/beta.desmogblog.com/files/Brockway%20Judge%20%20first%20Order%20rejecting%20experts%201%204%2016.pdf> [<https://perma.cc/XAC8-UR2D>].

<sup>371</sup> Long & Hamilton, *supra* note 367, at 168.

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.<sup>372</sup>

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.<sup>373</sup> 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 variety of experts from several scientific and social fields of inquiry testified to the harms presented by the transport of crude oil.<sup>374</sup>

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.<sup>375</sup> 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.<sup>376</sup>

*Washington v. Brockway* remains an important case because it is the first case in the United States where the jury heard testimony on the

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<sup>372</sup> State's Response to Def. Motion to Allow Affirmative Def. and to Call Expert Witnesses at 3–4, *Washington v. Brockway*, Case No. 5053A-14D (Snohomish Cty. Dist. Ct. Wash. Jan. 13, 2016) [hereinafter State's Response].

<sup>373</sup> Long & Hamilton, *supra* note 367, at 170.

<sup>374</sup> *Id.* at 171.

<sup>375</sup> *Id.* at 172.

<sup>376</sup> Stephen Quirke, *Delta 5 Defendants Acquitted of Major Charges*, EARTH ISLAND J. (Jan. 28, 2016), [http://www.earthisland.org/journal/index.php/elist/eListRead/delta\\_5\\_defendants\\_acquitted\\_of\\_major\\_charges/](http://www.earthisland.org/journal/index.php/elist/eListRead/delta_5_defendants_acquitted_of_major_charges/) [<https://perma.cc/V6HY-P5J2>].

climate necessity defense, even if it did not get to use that testimony in making its decision.<sup>377</sup> 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.<sup>378</sup>

## 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. 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.*<sup>379</sup>

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?

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<sup>377</sup> Long & Hamilton, *supra* note 367, at 172.

<sup>378</sup> Quirke, *supra* note 376, at 1–2.

<sup>379</sup> Long & Hamilton, *supra* note 367, at 173 (emphasis added).

One of the key hurdles preventing the public from understanding and engaging with tragedies of the commons is the scientific uncertainty surrounding such tragedies.<sup>380</sup> 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, wildfires, and adverse effects on fisheries.”<sup>381</sup> Another expert, a medical doctor, “testified about the health impacts of crude transport and the proposed coal-shipping terminal in Bellingham, Washington.”<sup>382</sup> 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.

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.”<sup>383</sup> 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, future generations—the less morally obligated people will feel to act on their behalf.”<sup>384</sup> Even the

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<sup>380</sup> Thompson, Jr., *supra* note 61, at 258.

<sup>381</sup> Long & Hamilton, *supra* note 367, at 171.

<sup>382</sup> *Id.*

<sup>383</sup> Thompson, Jr., *supra* note 61, at 264.

<sup>384</sup> Markowitz & Shariff, *supra* note 153, at 245.

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.”<sup>385</sup> 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.<sup>386</sup>

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.

As previously mentioned, litigation can be an ideal tactic for enhancing the public’s moral intuition about climate change because in

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<sup>385</sup> *Climate Necessity Defense Guide*, *supra* note 360, at 1.

<sup>386</sup> 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 (Jan. 15, 2016), <http://www.the-stranger.com/blogs/slog/2016/01/15/23429598/the-delta-5-verdict-is-in-guilty-and-not-guilty> [<https://perma.cc/3Z8V-ELPB>].

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.<sup>387</sup> 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.<sup>388</sup>

When people view climate change through a moral lens, they are more likely to support policies addressing climate change.<sup>389</sup> Thus forcing the public to see climate change through such an explicitly moral framework—in a criminal trial—may motivate them to act.

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<sup>387</sup> Markowitz & Shariff, *supra* note 153, at 244.

<sup>388</sup> Joseph E. Hamilton, *The climate made me do it!: Environmental protesters are poised to try out the ‘necessity defense,’* BOSTON GLOBE (Aug. 17, 2014), <http://www.bostonglobe.com/ideas/2014/08/16/the-climate-made/SyBQ7d95ZG0QoiJBHI17KK/story.html> [[https://web.archive.org/web/\\*/http://www.bostonglobe.com/ideas/2014/08/16/the-climate-made/SyBQ7d95ZG0QoiJBHI17KK/story.html](https://web.archive.org/web/*/http://www.bostonglobe.com/ideas/2014/08/16/the-climate-made/SyBQ7d95ZG0QoiJBHI17KK/story.html)].

<sup>389</sup> Markowitz & Shariff, *supra* note 153.

The climate necessity defense might also activate a feeling of self-efficacy, or “a sense of being able to do anything about climate change”<sup>390</sup> 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.

### 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.”<sup>391</sup> It also emphasizes how the Defendants wasted time and state resources yet made no dent in GHG emissions.<sup>392</sup> 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 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.<sup>393</sup>

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.”<sup>394</sup>

The climate necessity defense already offers a psychologically compelling framing of climate change, but that framing might be even more

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<sup>390</sup> O’Neill et al., *supra* note 286, at 414.

<sup>391</sup> State’s Response, *supra* note 372, at 3.

<sup>392</sup> *Id.* at 2–4.

<sup>393</sup> *Id.* at 9.

<sup>394</sup> *Id.* at 4.

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.

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 Parts II and III, 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 climate 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 United States and yet it has still generated significant media coverage. Regardless of outcome, climate change lawsuits informed by theories discussed in this Article 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.

## 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 United States 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 United States 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 addressing tragedies of the commons, why it is important to activate moral intuition on climate change, 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, the Climate Law in our Hands campaign, 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 those strategies largely conformed with suggestions from the social sciences literature for how to make climate change communications more salient to the public.

I argue 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 the social sciences 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. Creative climate litigation strategies can potentially 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. 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.

This Article is a preliminary investigation into how the social sciences could be leveraged to tell compelling climate stories in pro-regulatory climate litigation. Research on the public's cognitive challenges to engaging with climate change and on strategies to overcome those hurdles is rapidly expanding. Given that litigation is one of the most potent remaining tools for climate advocates, it is critical for lawyers to draw from that research and further investigate its potential to tell compelling climate stories through litigation.

