# Frogs in Slow Boiling Pots: Psychological Barriers to Effective Climate Change Action

Sofiya Soufi

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University of British Columbia

#### Introduction

Times of crisis fill the pages of human history. From epidemics of smallpox to the threat of nuclear annihilation, time and time again humans have been able to innovate and adapt to confront new emerging threats. We have overcome world wars and developed international networks of cooperation, all which have led us to this new age of relative peace and prosperity. 

But this new age is not void of calamity either, and now, perhaps humanity's greatest enemy draws its sword as an inevitable death sentence to our collective existence. The UN's Intergovernmental Panel on Climate Change report has affirmed, that a climate change doomsday awaits us in just over twenty years. But even this grim declaration cannot be labeled new or surprising; for years, any respectable scientist has affirmed the crucial need for humanity to deal with the rising global temperatures caused mainly by our human abuse of the environment. Even so, it is the continued lack of effective actions of state leaders towards this threat that is slowly leading us towards catastrophe. How is it then, as creatures who pride ourselves as rational beings-basing our decisions on a logical analysis of fact-that we acknowledge imminent destruction without implementing an effective plan to mediate it?

The answer lies partly in the very fact that humans are *not* wholly rational actors,<sup>3</sup> and that our minds are in fact wired to make us unaffected by this doomsday sentence.<sup>4</sup> Then what must be done to awaken humanity to the severity of the problem we face in a way that will spur us all into action? Will we only act after we directly experience Mother Nature's wrath? Or is there hope for an effective intervention to deal with climate change before we, as inhabitants of

<sup>1</sup> Max Roser. "The Short History of Global Living Conditions and Why It Matters That We Know It." Our World in Data.

<sup>&</sup>lt;sup>2</sup> Jonathan Watts "We have 12 years to limit climate change catastrophe, warns UN" *The Guardian*. 8 Oct 2018.

<sup>&</sup>lt;sup>3</sup> Based on economic theory, where rational actors make decisions based on logical cost versus benefit analysis.

<sup>&</sup>lt;sup>4</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change*. (New York: Bloomsbury Publishing, 2015), 9.

this earth, surpass the point of no return? This essay will argue that our current approach towards climate change policy is completely ineffective and requires change, as the human psyche is such that the knowledge of risk alone is not enough to induce a viable response. It will also argue that it is not necessary to wait for a true climate calamity to cause widespread casualties in order to rouse the masses into action; instead, what is necessary is a complete reframing of the climate change issue to avert the incoming destruction of the world as we know it.

In order to do this, I will begin by discussing the psychological factors with which the brain reacts to risk and which act as obstacles to proactive action. Next, I will explore how these factors directly fit into the climate change case study, and how they explain our current inertia towards any truly effective course of action. I will then address and disprove the idea that only after the world has a true taste of what climate change holds as disasters will the masses be motivated to act. Finally, I will suggest some possibly more realistic strategies to overcome our psyche's apathy in order to determine a realistic path towards developing sustainable solutions to climate change, without waiting for part of the world to vanish under the rising sea levels or uncontrollable forest fires. While systemic, institutional, political and other factors are also important to consider in regards to climate change action, the scope of this essay targets psychology as its main focus.

#### It's All in Our Heads

Although the human mind has shown the potential for brilliance and complex thinking as exemplified by figures from Aristotle to Einstein, this very complexity can be that which impedes on our ability to act in accordance to real factors of risk and reward.<sup>5</sup> In this section, I will consider four main psychological issues that are common obstacles to an objective

<sup>&</sup>lt;sup>5</sup> Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception. (London: Routledge, 2010) 34.

assessment of risk: the clash between emotional and rational aspects of interpretation, the inherent parochialism of human nature, the perception of near versus distant threats, and risk of fatigue in compassion and empathy.

Firstly, research has shown that emotion and reason are almost always both in play in the decision-making process. Described as the 'analytical system' and the 'experiential system', both factors come into play when humans process information. But more often than not, it is the emotional, *affective* perception, which takes precedence over any rational analysis. This means that how we personally perceive an idea or threat, and how we react to it, is more likely influenced by our emotions than by rational analysis. This suggests that facts, graphs, and reliable statistics have a smaller, if any, effect on most people's day to day cognitive understanding of the world than emotionally charged mediums. Symbolically powerful images, or graphic videos, provide longer lasting cognitive effects on our minds; we subsequently remember and act upon them more. For example, the viral image of Aylan Kurdi, a small Syrian boy drowned in an attempt to flee his country's turmoil, resulted in a spike of donations to charities helping alleviate the refugee crisis. The substitute of the process of the process of the substitute of the process of the

Secondly, many of us, as human beings, are unable to think globally and beyond our more immediate social circles.<sup>11</sup> Although cosmopolitan ideals are commonly discussed in both universities and NGOs offices, the human mind does not naturally extend its analytical process to include the global community. Instead, it focuses on what is most proximate to us in its

<sup>&</sup>lt;sup>6</sup> Ibid p.23.

<sup>&</sup>lt;sup>7</sup>Paul Slovic, Melissa L. Finucane, Ellen Peters, and Donald G. MacGregor. "Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality," *Risk Analysis* 24, no. 2 (2004): 313.

<sup>&</sup>lt;sup>8</sup> Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception. (London: Routledge, 2010) 23-24.

<sup>&</sup>lt;sup>9</sup> Ibid p.29

<sup>&</sup>lt;sup>10</sup> Luke Mintz "Photo of Aylan Kurdi Boosted Donations For Syrian Refugees, Study Finds" *The Wire*. January 12, 2017.

<sup>&</sup>lt;sup>11</sup>Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception. (London: Routledge, 2010) 82.

relevance to our day to day existence.<sup>12</sup> History shows that humans typically centre their identity on close social relations, building from family ties, to villages, to cities and provinces, to finally national identity.<sup>13</sup> But the farther the relation, the harder it is for us to establish real empathy for the *other*, even if they are of our own species. When it comes to imminent risk, our personal perceived proximity to it is key in determining whether or not we will react.<sup>14</sup> The farther away we perceive risk to be from ourselves or our immediate circle of care, the less we are inclined to put in time and effort towards dealing with said threat.<sup>15</sup> Similarly, if we perceive said threat as being irrelevant to our family and friends, city or nation, it becomes much harder to find any motivation as to why we should involve ourselves with the challenges of its resolution.<sup>16</sup>

Thirdly, while a rational actor-which economists would define as decision making based on a logical evaluation of cost and benefit-should always favour long-term benefits over short-term gratification, our minds, in fact, tend towards the opposite. We, as human beings, are psychologically more inclined to favour actions which result in immediate gratification than those requiring more time and effort in preparation for a future reward. This is explained by a historic need for survival; long-term considerations were arguably far less relevant to human existence. Obtaining food and shelter were always immediate needs; putting them off could mean death. But as societies developed, growing in both size and in the complexity of their relations, planning ahead became more and more important. Most evidently, the

<sup>&</sup>lt;sup>12</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 50.

<sup>&</sup>lt;sup>13</sup> Ibid p.68

<sup>&</sup>lt;sup>14</sup> Ibid p.101

<sup>&</sup>lt;sup>15</sup> Ibid

<sup>&</sup>lt;sup>16</sup> Ibid

<sup>&</sup>lt;sup>17</sup> Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception. (London: Routledge, 2010) 348-349.

<sup>&</sup>lt;sup>18</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 75.

<sup>&</sup>lt;sup>19</sup> Ibid 71

interconnectivity of our present era requires not only the consideration of what the future holds, but also a fair bit of effort goes into attempting an accurate prediction of what the future could look like.<sup>20</sup> But even as societies developed, our individual nature remains inclined towards short-term rewards.<sup>21</sup> Even with the acknowledgement of the importance of future-oriented economic and political planning, decision-making is undeniably done by individuals, human beings who will naturally consider their short-term immediate circumstances more easily than the consideration of what is needed in the long-term.

Fourthly, one cannot ignore the real risk of mental fatigue which results in the reduced ability to act upon feelings of compassion. After constant and recurring stimuli, it is no real surprise that the human mind begins to dismiss and disregard any further messaging, no matter how graphic or powerful it is.<sup>22</sup> This phenomenon is widespread, including the pressing issue of burnouts experienced by humanitarian aid and healthcare workers.<sup>23</sup> The human mind is only able to deal with a limited amount of exposure to trauma and tragedy before our self-defence mechanisms shut down our ability to react and respond.<sup>24</sup> Thus, the more a risk is reoccurring, the less we are cognitively inclined to have a strong reaction to it.<sup>25</sup> We become used to the dangers it holds, either dealing with it with a mundane attitude or simply learn to ignore it completely. For example, just as veteran hikers simply consider the coyotes and bears they might encounter as a simple part of their excursion, new hikers may very well avoid the activity all

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<sup>&</sup>lt;sup>20</sup> As shown by the existence of predictive economic and political models and theories, such as the Krugman model and realist thought.

<sup>&</sup>lt;sup>21</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change*. (New York: Bloomsbury Publishing, 2015), 71.

<sup>&</sup>lt;sup>22</sup> Donna Forster. "Rethinking Compassion Fatigue as Moral Stress," *Journal of Ethics in Mental Health* 4, no. 1 (2009): 1.

<sup>&</sup>lt;sup>23</sup> Ben Cook. "Dealing with aid worker burnout" the Guardian. Feb 22, 2013

<sup>&</sup>lt;sup>24</sup> Donna Forster. "Rethinking Compassion Fatigue as Moral Stress," *Journal of Ethics in Mental Health* 4, no. 1 (2009): 2.

<sup>&</sup>lt;sup>25</sup> George Marshall. Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change. (New York: Bloomsbury Publishing, 2015), 81

together because of their unfamiliarity with such risks. It is simply part of a process of normalizing a certain level of risk.<sup>26</sup>

Overall, many of these psychological factors were historically necessary to ensure human survival in the wilderness and in small developing village communities.<sup>27</sup> In the reality in which our ancestors found themselves, these factors were completely logical and compatible with their circumstance and were key in ensuring the survival of our species.<sup>28</sup> However, in our current world of extensive inter-dependability, these factors now clash with resolving issues relating to climate change in which rational, collective, and long-term thinking must be applied.<sup>29</sup> What is also key to note, is how in regards to each of these factors the *perception* of risk is far more relevant than the *actual* risk;<sup>30</sup> thus presenting facts is less important than how climate change is framed, because our actions will stem from our personal interpretations of how relevant the threat is to ourselves. The subsequent sections will discuss how this knowledge can be used to effectively transform climate change policy.

## **A Stagnant Climate**

The nature of the climate change issue is such that the limitations of our cognitive abilities automatically come into play: it is inherently a global problem whose consequences will be felt by both present and future generations. But unfortunately, even the methods used to discuss the issue are at odds with our psyche, which goes a long way in explaining why climate change policy has this far been largely ineffective. This section will discuss how the current

<sup>&</sup>lt;sup>26</sup> Ibid

<sup>&</sup>lt;sup>27</sup> Ibid p.72

<sup>&</sup>lt;sup>28</sup> Ibid

<sup>&</sup>lt;sup>29</sup> Ibid p.95

<sup>&</sup>lt;sup>30</sup> Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception. (London: Routledge, 2010) 25-26.

narrative behind climate change activism and proactive policy is largely inefficient when considering our psychological limitations.

As mentioned in the previous section, emotion largely takes precedence over rational analysis when it comes to assessing any particular information. Thus, language and medium are key in determining how a particular message is received. In regards to climate change, almost all aspects of the problem are relayed to both policy makers and the general public through a strictly hard-facts medium. From news reports to documentaries, scientists often relay information through the listing of numbers and statistics. But for the majority of the population, including policy makers, the rise of sea levels across the globe in inches means little, cognitively. Moreover, the large majority of people outside the scientific community, even the well-educated, are not equipped to interpret the presented data in such a way that they fully understand its significance. Without further inquiry from a population busy with its day to day activities, the rising sea levels by a few 'inches' as an example of climate change does in fact seem like a rather obsolete change to our beaches.

Moreover, the language used in discussions around climate change is often future oriented, with phrases like 'the sea levels *will* rise' and 'there *will* be massive food shortages'. This distances the disaster from our present day, even though the reality is that many of us will still be around to experience the global climate doomsday. This can be especially problematic

<sup>31</sup> Ibid p.23

<sup>32</sup> Thid p 70 80

<sup>&</sup>lt;sup>33</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 59.

<sup>&</sup>lt;sup>34</sup> George Marshall. Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change. (New York: Bloomsbury Publishing, 2015), 87.

<sup>&</sup>lt;sup>35</sup> As evident by IPCC predictions for 2040.

for policy makers, who might feel pressured by electoral cycles. <sup>36</sup> As previously mentioned, even while being embedded in systems and institutions, it is individual human minds that are effectively responsible for decision making. The legislation policy makers debate within the state structure must consistently appear to produce tangible and quantitative economic or infrastructural benefits for the people of their constituencies.<sup>37</sup> Politicians who fail to come through on campaign promises or otherwise lose the support of their constituents are often voted out of office.<sup>38</sup> This makes it that much more difficult for policy makers to bring the issue of climate change to the table, as they, fallible human beings with a need for a stable income, must prioritize their job stability over championing a climate change policy which is not guaranteed success. <sup>39</sup> Similarly, the industries which are largely responsible for our current climate change problem, from mining to chemical manufacturing, 40 work on the basis of maximizing material profit as described by economic principles. As long as there are profits to be made in polluting sectors, there is not a powerful incentive for industries to turn to more sustainable production, especially as this change often has initial larger and transitional production costs. 41 Moreover, the intrinsic link between corporations and politicians through campaign funding and powerful

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<sup>&</sup>lt;sup>36</sup> John S. Dryzek, Richard B. Norgaard, and David Schlosberg "Climate Change and Society: Approaches and Responses" The *Oxford Handbook of Climate Change and Society*. Edited by John S. Dryzek, Richard B. Norgaard, and David Schlosberg (2012) 9.

<sup>&</sup>lt;sup>37</sup> Rebecca Willis. "How Members of Parliament understand and respond to climate change," *The Sociological Review* 66, no. 3 (2017): 482-486.

<sup>&</sup>lt;sup>38</sup> As per the principles of democratic choice within government systems.

<sup>&</sup>lt;sup>39</sup> John S. Dryzek, Richard B. Norgaard, and David Schlosberg "Climate Change and Society: Approaches and Responses" The *Oxford Handbook of Climate Change and Society*. Edited by John S. Dryzek, Richard B. Norgaard, and David Schlosberg (2012)

<sup>&</sup>lt;sup>40</sup> Oishimaya Sen Nag "The World's Most Polluting Industries" World Atlas. April 17, 2018.

<sup>&</sup>lt;sup>41</sup> John S. Dryzek, Richard B. Norgaard, and David Schlosberg "Climate Change and Society: Approaches and Responses" The *Oxford Handbook of Climate Change and Society*. Edited by John S. Dryzek, Richard B. Norgaard, and David Schlosberg (2012), 586.

lobbies create the perfect storm of inaction towards enforcing policies to deal with climate change. 42

Furthermore, both interstate and intrastate discussions attempting to tackle climate change have become riddled with divisive rhetoric. While it is obviously a global issue which every human should be equally concerned with, policies designed to tackle the issue are subject to competition and banter between parties and factions. 43 In the United States for example, conservatives now more readily object to environmentally sound legislation, only because over time it has come to be associated with their ideological opponents. This dilemma is exacerbated by the fact that left leaning groups more readily frame themselves as the champions of environmentally friendly ideals, which in the nature of political division, urges their opponents to find every weakness their policies hold. 44 In regards to climate change specifically, this results in even imperfect policy attempting to be passed in an effort towards proactive action to be most likely slowed down or shut down in a divided house. Significantly, the stark divisions between Democrats and Republicans under a climate change denying Trump administration has not only allowed climate change policy to be overly slowed down, but has also now become an issue whose very existence is acceptable to debate. 45 Similarly, even on the international level where the existence of climate change is a less debatable issue, nationalist sentiments impede on the enactment of practical treaties. The negotiation table is riddled with debates on which countries hold the burden of responsibility, which countries need to reduce their emissions the most, and

<sup>&</sup>lt;sup>42</sup> Љід 134 135

<sup>&</sup>lt;sup>43</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 278.

<sup>&</sup>lt;sup>44</sup> Kelly S. Fielding and Matthew J.Hornsey. "A Social Identity Analysis of Climate Change and Environmental Attitudes and Behaviors: Insights and Opportunities." *Frontiers in Psychology* 7, no. 121 (2016): 3.

<sup>&</sup>lt;sup>45</sup> Chris Cillizza. "Donald Trump buried a climate change report because 'I don't believe it" CNN. November 27, 2018.

which are allowed to continue to emit for the sake of development. <sup>46</sup> For example, many western nations benefited from the industrial revolution, which has also contributed the most to the long term levels of CO<sub>2</sub> in the atmosphere. <sup>47</sup> But these nations often emphasize the highest contemporary nations of CO<sub>2</sub> emissions, like China, to take more responsibility. <sup>48</sup> Meanwhile, developing nations in South America and Southeast Asia often cite the right to development as justification for the exploitation of their nation's natural resources even if it will contribute to climate change via forest devastation and ecosystem destruction. <sup>49</sup> Evidently, each looks to their own national interest; but it is not just the problem of parochiality that comes into play within these international agreements, but again the difficulty with long-term planning and the need for immediate results also arises, just as it does for national parliamentarians.

Even more seriously, is how desensitized much of humanity has become to the problem of climate change. Scientists have warned about the dangers of climate change over thirty years ago when is first became 'news', 50 and the ineffective methods discussed above have been at play ever since. This has increased the ease with which desensitization settles in. Climate change is now unfortunately perceived by too many people across the globe as an issue which is lacking in urgency, even with the efforts of activists and grassroots movements whose power is limited in contrast to governments and corporations. Climate change has existed in our global narrative for decades in a way that is similar to world poverty, which has made us all used to its existence. Without having internalized the impending doom inaction towards climate change shall wrought,

<sup>&</sup>lt;sup>46</sup> Senja Post, Katharina Kleinen-von Königslöw & Mike S. Schäfer "Between Guilt and Obligation: Debating the Responsibility for Climate Change and Climate Politics in the Media" *Environmental Communication* (2018) 1.

<sup>&</sup>lt;sup>47</sup> Ibid p.3

<sup>&</sup>lt;sup>48</sup> Ibid

<sup>&</sup>lt;sup>49</sup> Ibid

<sup>&</sup>lt;sup>50</sup> Andrew Revkin. "Climate Change First Became News 30 Years Ago. Why Haven't We Fixed It?" *National Geographic*. July 2018.

we understand its danger only on a superficial rational level.<sup>51</sup> Just like the experienced hikers, we continue our polluting ventures without much regard for what problems we will inevitably encounter. The problem of climate change is now perceived by many key players, like policy makers and corporations, as more of a structural problem, which requires a long and tedious process to repair, than a crisis in urgent need of management. This sense of 'relaxed' attitude towards risk is evident in the global climate agreements riddled with rather unimportant debates on responsibility and burden, while also being vacant of the much-needed urgency necessary to avert the incoming crisis.<sup>52</sup> This creates an environment where obsolete debates on the validity of climate change policy is tolerated, which again pushes the problem and its solution to future uncertain generations. 53 This current state of action is thus completely incompatible with the issue of climate change, as a slow and steady strategy of structural change will not yield fast enough results for us to avoid a collective tragedy. Moreover, climate change agreements have a focus on international cooperation as exemplified by the Kyoto Protocol and Paris Climate Accords, just to name a few. While this is intuitively logical, it is strategically unwise. With no real structures in place to police the implementations of agreements within national borders, the criterion for the tragedy of the commons to flourish unimpeded are plenty. Thus the threat of climate change is even further distanced from the reality of each nation and its citizens.

This combination of political and social realities with our psychological limitations explain why humanity has been so stagnant in its actions against climate change. The greatest threat to our collective existence faces us, yet it is with ineffective mediums that it is presented to

<sup>&</sup>lt;sup>51</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change*. (New York: Bloomsbury Publishing, 2015), 202

<sup>&</sup>lt;sup>52</sup> Senja Post, Katharina Kleinen-von Königslöw & Mike S. Schäfer "Between Guilt and Obligation: Debating the Responsibility for Climate Change and Climate Politics in the Media" *Environmental Communication* (2018).

<sup>&</sup>lt;sup>53</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change*. (New York: Bloomsbury Publishing, 2015), 87.

both the masses and the people in powerful decision-making positions. It is clear that a serious change in narrative must occur if we are to leave this general climate of inaction.

#### **Destruction for Action?**

It is evident that the current rhetoric around climate change is flawed, which is why international accords and national policy are thus far subpar to what is needed to actually avoid a climate disaster.<sup>54</sup> This section will evaluate the severity of the damage the traditional narrative towards climate change has had on our current ability to salvage the situation. Specifically, it will debate the question of whether or not a certain level of calamity must occur in order to awaken the masses to the urgency of the climate change action.

Another key problematic with the importance of the perceived proximity of threat in regards to climate change is that nations of the Global North can more easily consider themselves out of harm's way. <sup>55</sup> Scientific research already predicts that climate change will disproportionately affect the poorest nations and disenfranchised populations, at least in its earlier stages. <sup>56</sup> This provides a false sense of security for the common middle class citizen of developed countries to distance themselves from the threat of climate change, and therefore also their responsibility towards enacting change and sustainable solutions to human civilization. Following this logic, it is tempting to argue that only a massive climate change disaster which shakes a wealthy nation's inhabitants to its existential core will awaken the world's privileged populations into upholding their responsibilities towards the environment. Support for this view could find arguments in the threat to human existence presented by nuclear power, which is

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<sup>&</sup>lt;sup>54</sup> Again, shown by predictions of what the Paris Climate Pact can achieve. See introduction.

<sup>&</sup>lt;sup>55</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 101.

<sup>&</sup>lt;sup>56</sup> See IPPC report

comparable to climate change in its scale and inescapably. The logic follows that only after humanity witnessed the horrific results of nuclear weapons in Hiroshima and Nagasaki, and the nightmarish aftermath of the Chernobyl nuclear accident that the public became conscious enough to pressure their governments into garnering reservation in the use of nuclear power. <sup>57</sup> It was also only after realizing the effects of nuclear testing in the atmosphere that such testing was subsequently banned by international law. <sup>58</sup> Examples also exist on a smaller scale; only after turning away boats of refugees which resulted in the demise of their passengers during the Second World War did Canada and other western countries review the humanity of their policy towards asylum seekers. <sup>59</sup>

At the same time however, relying on a major disaster to spur the world into action is a psychologically flawed solution. In regards to the human mind, one would intuitively expect that the more casualties occur, the more we tune into the severity of the situation and are motivated to act. However, this is simply not the case. In fact, quite the opposite occurs. Research has shown that the higher the casualty count, the less we actually care. This is due to our mind's inability to multiply our empathetic response by the amount of people who are injured or die. The end result is the dreaded desensitization previously mentioned. From a historic perspective, there exists many instances where massive collective action was taken in the face of a serious threat without the need for a preceding calamity to have occurred as motivation, the simple acknowledgement of a crisis was enough. Such examples exist even for the specific case of climate change. In 2018, the entire nation of South Africa was faced with a severe drought; the

<sup>&</sup>lt;sup>57</sup> "Public Attitudes to Nuclear Power", in *Nuclear Development* (Paris: OECD Publishing, 2010): 45.

<sup>&</sup>lt;sup>58</sup> Bernhard G. Bechhoefer. "The Nuclear Test Ban Treaty in Retrospect" Case Western Reserve Journal of International Law 5 no.2 (1973) 130.

<sup>&</sup>lt;sup>59</sup> Colin Perkel. "Canada to apologize for turning away ship of Jewish refugees fleeing Nazis" CTV News. May 8, 2018.

<sup>&</sup>lt;sup>60</sup> Paul Slovic. The Feeling of Risk: New Perspectives on Risk Perception (London: Routledge, 2010), 75.

<sup>&</sup>lt;sup>61</sup> Ibid 72

<sup>62</sup> Ibid xxiv

water shortage was so serious that the government was forced to implement a state of emergency, anticipating for a Day Zero in which water would run out.<sup>63</sup> Within this climate of crisis, all sources of water were strictly regulated and rationed.<sup>64</sup> As a result, a catastrophe was averted and Day Zero has been pushed back.<sup>65</sup> In an unanticipated result, this time of crisis reportedly created enough awareness amongst the population that many of them now make a conscious effort in order to save water even as the crisis has passed.<sup>66</sup>

This suggests that, overall, provoking our psychological recognition of a proximate risk is part of what must be done to spur the masses into action. While many key human rights issues have indeed collected a fair amount of human casualties before they were granted any real attention, the number of casualties in not correlated to the amount of attention it receives in terms of policy or legislation. Instead, how the issue is framed holds far more consequence. These examples disprove the notion that only a true taste of Mother Nature's wrath will lead to tangible action plans to deal with climate change. In a way, the only real difference between the threat of climate change and nuclear weapons lies in messaging. Humans all over the globe have already experienced first-hand the effects of climate change, ranging from water shortages to the loss of life and infrastructure in the face of ferocious hurricanes in places like Indonesia. These cases have simply not been framed enough as being due to climate change.

But this still does not take away from the value of crisis. Capitalizing on the immediate needs of a crisis is exactly how climate change policy should take shape. Quick, emergency measures should be put in place instead of involving slow and partisan divided government debates. Oftentimes, one symbolically powerful tragedy has more effect than the deaths of many,

<sup>&</sup>lt;sup>63</sup> Joseph Cotterill. "South Africa: How Cape Town beat the drought." *Financial Times*. May 1, 2018.

<sup>&</sup>lt;sup>64</sup> Ibid

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<sup>&</sup>lt;sup>66</sup> Josh Gabbatiss. "Cape Town is approaching drought 'Day Zero', and climate change could be to blame" *The Independent*. March 3, 2018.

with cases including Aylan Kurdi, and more recently, the image of deceased young girl Amal Hussain, starved to death due to the humanitarian crisis created by the ongoing Saudi Arabian offensive on Yemen.<sup>67</sup> Thus, climate change activists need not wait for a true calamity to hit; on the contrary, massive casualties will probably only further desensitize the masses. This suggests that a severe reframing of narrative and messaging is part of what needs to be done to add urgency to climate change action.

### **Needed: Crisis not Calamity**

Clearly, policy makers have a difficult task ahead in finding a truly global solution to climate change. But with a good understanding of the human mind comes the tools to drive it into action. All that is needed is a complete reframing of the problem and the range of possible solutions.

As mentioned is the previous sections, the problem of parochial thinking and the subsequent communitarianism policy that results from it is a major problem for arriving at global consensus of action. Since thinking globally is in practice much more difficult for humans, instead of fighting our primal human instincts, why not embrace this and use it to our political advantage? While global emissions as part of climate change are a collective problem, it is possible to find a specific way in which climate change will affect each nation. For example, New York is a prime victim of rising sea levels, <sup>68</sup> and California is the yearly victim of devastating forest fires. <sup>69</sup> While climate change occurs on a global level, and the actions of no one city will produce significant mediating effects, using local problems as a motivator for

<sup>&</sup>lt;sup>67</sup> Declan Walsh. "Yemen Girl Who Turned World's Eyes to Famine Is Dead" New York Times. November 1, 2018.

<sup>&</sup>lt;sup>68</sup> Andrew Rice. "This is New York in the not-so-distant future" *Intelligencer Magazine*. September 5, 2016.

<sup>&</sup>lt;sup>69</sup> Laignee Barron and Mahita Gajanan. "California's Wildfires Have Become Bigger, Deadlier, and More Costly. Here's Why" *Time Magazine*. November 13, 2018.

effective local action can prove useful. The gravity of what climate change presents as a threat is at least worth the effort.

Furthermore, since the human mind has difficulty rationally comparing immediate versus future situations, <sup>70</sup> then it would be wise for climate change activists to keep their persuasive language in the present tense. All campaigns should be directed towards a present day crisis. In essence, we have collectively been dealing with climate change like frogs in a pot which starts to boil at a slow and steady rate. A shock to the global system is what is needed to spur us from our inert state. Thus using a language of current, not imminent crisis, should also heighten chances for increased interest from the public and thus also encourage policy makers to identify climate change as a key part of their mandate. Many climate change activists are already adopting these strategies; the examples of Extinction Rebellion and Swedish high school student Greta

Thunberg showcase the utility of such an approach, as both garnered rather massive international attention. <sup>71</sup>

Of course, many efforts towards addressing climate change have failed due to our capitalist system, which values profit over anything else and thus whose industries continue to rely on polluting extraction and production methods like fracking and the use of ammonia in agriculture. That is why involving corporate structures throughout the globe is essential to ensure long-lasting and effective strategies. The use of corporate power for environmental protection is evidently effective in China, where the government not only encourages, but demands businesses to include green tech and sustainable development as part of their company

<sup>&</sup>lt;sup>70</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change*. (New York: Bloomsbury Publishing, 2015), 87.

<sup>&</sup>lt;sup>71</sup> Jonathan Watts "Extinction Rebellion goes global in run-up to week of international civil disobedience" The Guardian. December 10, 2018. & Jonathan Watts "The beginning of great change! Greta Thunberg hails school climate strikes" *The Guardian*. February 15, 2019.

<sup>&</sup>lt;sup>72</sup> "Air pollution and food production" UNECE.

philosophy and production. 73 Admittedly, China continues to be one of the greatest emitters of CO<sub>2</sub>; but at least its rhetoric is directed towards positive change, in contrast to US president Trump's promises of bringing back coal as a main source of energy. 74 Considering the extent to which money and economic influence dictate policy, it is necessary to have the power of the dollar act in accordance to a sustainable future, and when sustainable development and profit are seen as the only viable option, then corporations will be more willing to invest in green tech. This was fairly easy to do in China, as the government's power enables it to dictate industrial goals and direction. In non-autocratic countries however, such efficiency is more difficult to reach, but is not completely impossible. It requires intense bottom-up pressure from the masses to translate into unavoidable political leverage against violating industries, which many movements like, 350 and WWF, show potential in creating.<sup>75</sup> In some ways, the corporate sector holds more promise for long-term planning, as the competitive nature of the capitalist system also makes planning ahead a given for each industry. Unlike policy makers, they are also unaffected by short election cycles, and if the incentive of profit is placed side by side with sustainable strategies, then the capitalist system can be shaped to champion climate change action.<sup>76</sup>

On a more individual level, it is important to play on direct human emotion. Again, the reframing of climate change should not be as a distant future threat, but as something that could happen as soon as tomorrow. Of course, there is some limitation to worldwide networks when it comes to language and cultural specificity. But some statistics show that when Al Gore presented

<sup>&</sup>lt;sup>73</sup> Sizhen Peng and Xinzhang Sun. "Research on challenges and strategies for China's green economy development." *Chinese Journal of Population Resources and Environment* 13, no. 2 (2015): 127.

<sup>&</sup>lt;sup>74</sup> Tom DiChristopher and John W. Schoen. "Trump says 'the coal industry is back.' The government's jobs numbers say otherwise" *CNBC*. August 23, 2018.

<sup>&</sup>lt;sup>75</sup> Charlotte Lytton. "Top 10: climate change campaigns" *the Guardian*. November 15. 2013.

<sup>&</sup>lt;sup>76</sup> Robert W. Hahn and Robert N. Stavins. "Economic Incentives for Environmental Protection: Integrating Theory and Practice" *The American Economic Review* 82, no. 2 (1992): 464-468.

his documentary on the destructive potential of global warming, interest in climate change saw a small increase within the American population, although admittedly direct causation is difficult to establish.<sup>77</sup> Part of the solution lies in the examination of a comparable threat to human existence, nuclear destruction. During the Cold War, activism and resistance though artistic mediums flourished. Anti-nuclear weapons songs by popular musicians, like "London Calling" by the Clash, preaching peace and some form of denuclearization acted as easily accessible mediums in which listeners could emotionally connect with the message of the song, and thus more easily internalize it. 78 This helped more easily create widespread support for policy changes and nuclear prudence. Thus, the use of a universal medium, which has a level of strong emotional engagement such as music, should be regarded as a prime tool in getting people's attention. This method should not be confused with the simple use of celebrities as ambassadors; Leonardo DiCaprio's has obviously been very vocal about the danger of climate change, but there is only so much a speech can do, especially when celebrities are not universally accepted as figures worthy of holding a politicized platform and rarely is their popularity truly unanimous. Meanwhile, NGOs such as Greenpeace and Peta have admittedly attempted to channel the power of emotion in their campaigns, most notably through the use of the infamous images of polar bears floating helplessly on melting pieces of ice. However, these images are arguably not emotionally powerful enough. Just as thinking globally is difficult, so is it to think outside our species, and these pictures do not call upon our more natural empathetic response to other human beings. 79 While we might feel a dash of empathy at the sight of a wounded animal, much of humanity remains anthropocentric, which makes such mediums limited in their reactionary

<sup>&</sup>lt;sup>77</sup> John Cook. "Ten years on: how Al Gore's An Inconvenient Truth made its mark" *The Conversation*. May 30, 2016.

<sup>&</sup>lt;sup>78</sup> Ryan Leas "38 Essential '80s Songs About Nuclear Anxiety" *Stereogum.* January 23, 2018.

<sup>&</sup>lt;sup>79</sup> George Marshall. *Don't Even Think About it: Why Our Brains Are Wired to Ignore Climate Change.* (New York: Bloomsbury Publishing, 2015), 198.

potential.<sup>80</sup> This suggests that the use of images of climate change victims, such as those who lost their homes and families to flooding, would generate a greater emotional reaction, and will thus result in more participation towards tackling the issue.

Considering the extent to which this is a crisis with the existence of human kind at stake, a more extreme attitude towards collective rhetoric might be worth considering. While there is currently much, although pointless, debate over 'hate speech' somehow denying the right to 'free speech', the world standard is at least reasonable enough to chastise and condemn without question anyone who denies the occurrence of the Holocaust. Considering the severity of what lies ahead, it is not extreme to develop a global approach where climate change deniers are dealt in the same way, so as to limit this perverse narrative from polluting the discussion on change. Scholar Joshua Green stated: "if you're so selfish that you're not willing to lift a finger to spare another human from serious suffering, then you're simply not part of this conversation". Admittedly a provocative statement, just as purely selfish actors should not be allowed to disrupt the narrative of history and progress, climate change deniers too, should not be legitimized through public platforms and thus pollute the narrative towards positive change. Similarly, the use of "global warming" as a term should be avoided, as climate change deniers are all too eager to denounce the existence of winter as proof of their naysaying. Se

Thus, the tools necessary to mediate our impending doom are at our disposal; it is simply a matter of implementing them effectively. Thus far, narratives regarding climate change have been in direct conflict with the nature of our mind. It is thus only a matter of using our inherent irrationality so as to steer our collective species into taking climate change seriously.

<sup>&</sup>lt;sup>80</sup> Katie McShane. "Anthropocentrism in Climate Ethics and Policy." *Midwest Studies in Philosophy* 40 no. 1 (2016): 196-197.

<sup>&</sup>lt;sup>81</sup> Joshua Greene. Moral Tribes: Emotion, Reason, and the Gap Between Us and Them. (New York: Penguin Books, 2013) 191.

<sup>&</sup>lt;sup>82</sup> Kevin Cowtan and Stephan Lewandowsky. "Global warming 'hiatus' is the climate change myth that refuses to die" *The Conversation*. December 19, 2018.

#### Conclusion

In this essay, I discussed the psychological factors which are most often the culprit of human inaction towards imminent threats. It is clear from research that our minds are easily more influenced by our emotional reaction than on our rational evaluations, and that even in this age of global interdependence, that parochial and short term oriented thinking outweighs a holistic cosmopolitan and long term way of seeing the world and our responsibility towards it. These innate factors have over the course of history, acted as significant obstacles to humanity's ability to deal with avoidable tragedies and in the case of climate change, this very inaccurate assessment of risk could very well lead to our extinction and that of our fellow earth dwellers. However, hope remains, although it only exists if certain parameters are actively followed. It is not necessarily to wait for a true climate catastrophe to occur for humanity to spur into action, as any such tragedies have already occurred and have only contributed to our overall stagnant attitude towards the problem. Instead, a completely different approach in how climate change is framed and presented to the masses as an issue must be made. Creating the sense of crisis, especially on a local level, is essential to making the threat of climate change appear as proximate as possible. Acknowledging our psychological limitations and shaping policy accordingly is the simplest way to make climate change an issue that is actually dealt with in an effective manner. While a cosmopolitan way of thinking has not yet been internalized by enough minds to be a reliable motivator, using local-specific factors as a basis for motivation has the potential to find a way in which each community will consider climate change its personal problem. In essence, the innate weakness of our minds do not necessarily have to act as exclusive obstacles. Instead, using them as parameters to maximize the effectiveness of policy and

activism strategies into tangible results can make them useful tools in securing the survival of earth and its creatures.

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