

Climate Justice:
Its Meanings, its Struggles, and its Prospects Under Liberal
Democracy and Capitalism

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Abstract

The term “climate justice,” despite wide usage, defies easy definition. I argue that in order to appreciate it in its full complexity, climate justice is best understood as a moral framework with 2 “facets.” Facet (1) allows us to identify the various moral wrongs or concerns that are either causing, caused by, or raised by climate change while facet (2) allows us to understand how struggles to win responses to climate change that address those moral concerns are being organized. It is this second facet that I explore at length in this dissertation by identifying different “fronts” in the struggle for climate justice. A first front I refer to as (a) *climate justice as climate ethics*, in which rigorous moral philosophical reasoning is deployed to shape the creation of a just global agreement governing the distribution of climate burdens and benefits among nations. A second front is (b) *the climate justice of the climate movement*, which uses several prominent social movement strategies to attempt to make governing elites democratically accountable to moral demands for climate action. However, progress on both of these fronts is constrained by the logics of capitalism and liberal representative democracy (“liberalism” or the “liberal order”), which together filter out all but a narrow range of climate responses. I therefore argue that it is necessary to turn to a third front, (c) *climate justice as just society*, which seeks to disrupt liberalism’s ideological hold in order to justify alternative institutional arrangements that can form the basis of a society that is simultaneously more just and better able to respond to the climate crisis. I identify political projects in the Leap Manifesto and in a capabilities approach to justice that can potentially make progress on this third front.

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I. Introduction

1. *Why Climate Justice?*

Here is what a climate response without climate justice looks like.

It looks like states refusing to enter into binding climate agreements; like governments of rich countries failing to adopt climate targets that reflect that they hold the greatest historical responsibility for causing the crisis. It looks like a patchwork of mitigation pledges too weak to prevent dangerous climate change, like rich states pledging a pittance to the international bodies charged with aiding developing countries prepare for climate change and adopt renewable energy. It looks like the north abandoning communities throughout the south, the loss of irreplaceable human heritage sites, the extinction of species, and the inheritance by future generations of a dangerously destabilized climate.

A climate response without climate justice looks like governments declaring the importance of combatting climate change while at the same time subsidizing the very fossil fuel industry whose profit model requires the wreckage of the climate. It looks like the approval of more pipelines, more fracking, and more drilling; like denying Indigenous rights where those rights get in the way of fossil fuel extraction; like universities and other major institutions continuing to invest in the companies profiting from the destruction of the climate. It looks like dysfunctional democratic institutions ignoring the demands of a mass-based climate movement; like policymakers saving ambitious emissions targets for the far future, long after their time in power will have come to an end; like governments securitizing national borders and whipping up xenophobic nativism at a time when climate change impels people to migrate from or flee their homes.

It looks like market approaches that turn the most important collective human endeavour there has ever been over to corporations; like the prioritization of economic growth and profit over the need to preserve a habitable climate; like a

refusal to adopt policies that challenge a rapacious, and unequal economic system and attendant lifestyle based in wasteful, empty consumption.

This is no hypothetical scenario; it is how the climate response actually looks today. Governments' mitigation pledges *really are* too weak to prevent dangerous climate change; current climate policy puts the world on track to warm by a world-devastating 3°C or more relative to pre-industrial times.¹ Politicians *really are* saving ambitious emissions targets for far in the future. New pipelines to major sources of fossil fuels *really are* continuing to be built in a time when the world has more fossil fuel reserves than it can ever burn.² And because the response to climate change looks like this, that response is failing.

Unless morality forms its motive force, the response to climate change will continue to fail, and with progressively more severe consequences for people (particularly in the global south) and non-human life now and in the future as oceans rise, as soils and rivers dry, as forests wither and burn, as storms destroy homes and fields. It will continue to fail because the climate crisis requires a response that far exceeds in urgency, scope, and ambition the solutions that are compatible with logics that do not have a moral core. Let us call them "amoral logics," logics like those that, above all else, prioritize high short-term economic growth, or require the creation of ideal market conditions for capitalist accumulation to continue under the transition to renewable energy, or that eschew large-scale democratic planning and investment, or that must preserve national economic competitiveness. Given its severe and far-reaching consequences over distance and time, the nature of the climate crisis is such that the measure of a full

¹ United Nations Environment Program (UNEP), *The Emissions Gap Report 2016: A UNEP Synthesis Report* (UNEP, 2016), 16; "Climate Scoreboard UN Climate Pledge Analysis," *Climate Interactive*, <https://www.climateinteractive.org/programs/scoreboard/frequently-asked-questions/>

² For instance, in late 2016, the Canadian government approved two new tar sands pipelines. John Paul Tasker, "Trudeau cabinet approves Trans Mountain, Line 3 pipelines, rejects Northern Gateway," *CBC News*, November 29, 2016, <http://www.cbc.ca/news/politics/federal-cabinet-trudeau-pipeline-decisions-1.3872828>; Oil Change International, *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (2016).

response to it rests on the degree to which that response evinces a concern for, solidarity with, and recognition of others—others more exposed to the effects of a changing climate, others with low capacity to adapt to those changes, others who are employed in high-carbon sectors of the economy that must be phased out, non-human others, others in the future. (As one journalist covering the climate justice movement put it, “What we’re fighting for now is each other.”³) But because they have overriding imperatives, amoral logics cannot do this. Where their overriding imperatives cannot be reconciled with moral demands, where the two ends are incongruent, amoral logics yield to their overriding imperatives. If a country’s climate policy might negatively affect growth but represent its fair contribution to preventing communities in a low-lying island states from the devastation of sea-level rise, logics that fetishize high short-term economic growth permit the deluge. If it is unprofitable for private energy corporations to provide renewable energy infrastructure rapidly enough to spare communities in rural Asia or sub-Saharan Africa from worsening drought, a neoliberal capitalist response will delay until conditions for profit improve.

And yet, it is logics like these, logics that permit and even require the sacrificing of others, that have overwhelmingly characterized the response to climate change in the north. That is why the climate response looks the way it does, why it is failing.

It is only a response with morality at its core—one whose prioritization of ethical principles, fairness, and empathy mean that moral imperatives are not the ones overridden but instead the ones that override—that can hope to address the climate crisis in the fullest way possible. That moral response has come to be known as *climate justice*. And if climate justice can somehow challenge the dominance of the amoral logics that have for so long determined climate policy—if it can drive a much fuller array of policies that avoid the sacrificing of others—then it is no

³ Wen Stephenson, *What We’re Fighting for Now is Each Other: Dispatches from the Front Lines of Climate Justice* (Boston, MA: Beacon Books, 2015), 208.

exaggeration to say that the struggles for it are now the most important in the world. Climate justice therefore needs to be interrogated.

A brief note on the voice I use in this is necessary. The views and overarching questions of this dissertation are *situated*: they stem from a deep, personal moral concern (bordering sometimes on despairing anguish) and frustration about the nature of the reigning response to climate change, a response that shows no sense of urgency and thus belies logics permitting the sacrificing of others. My initial entry point into researching climate change was through the field of *adaptation* (the term referring to efforts to prepare for the expected and actual impacts of climate change⁴). In looking at the emerging challenges for adaptation practice, one quickly realizes how closely linked prospects for adaptation are with progress on *mitigation*, (i.e., human efforts to “reduce the sources or enhance the sinks of greenhouse gases (GHGs).”⁵) There can be a tendency to discuss adaptation in isolation from mitigation, but the consequences of the latter for the former mean that the two realms are not neatly separated.⁶ A painful personal realization was how extraordinarily difficult it is to conceive of successful and just adaptation responses should climate change grow increasingly catastrophic and unmanageable

⁴ The latest IPCC definition of *adaptation* is “The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects” IPCC, “Annex II: Glossary” (Katherine J. Mach, Serge Planton, and Christoph von Stechow, eds.), in *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by R.K. Pachauri and L.A. Meyer (IPCC, Geneva, Switzerland, 2014), 118.

⁵ This definition is the IPCC’s. The IPCC notes mitigation also includes human interventions to reduce the sources of other substances which may contribute directly or indirectly to limiting climate change, including, for example, the reduction of particulate matter emissions that can directly alter the radiation balance (e.g., black carbon) or measures that control emissions of carbon monoxide, nitrogen oxides, Volatile Organic Compounds and other pollutants that can alter the concentration of tropospheric ozone which has an indirect effect on the climate.” IPCC, “Annex II: Glossary,” 125.

⁶ Paavola, Adger, and Huq recognize this fact by listing “avoiding dangerous climate change” as the first of four principles for advancing climate justice in adaptation (the other three principles for advancing climate justice in adaptation are “forward-looking responsibility” (requiring polluters to compensate for the future impacts of their emissions now and to pay for adaptation) “putting the most vulnerable first,” and “fair participation of all”). See Paavola, Adger, and Huq “Multifaceted Justice in Adaptation to Climate Change” in *Fairness in Adaptation to Climate Change*, eds. Neil Adger, Jouni Paavola, Saleemul Huq, and M. J. Mace, 269-276.

on a global scale, as current policy suggests it is likely to.⁷ Important causes I had hoped my work could contribute to—identifying just solutions to climate change-impelled human displacement⁸ and for community-based adaptation in poor and vulnerable communities⁹—felt suddenly hopeless. This realization led me to shift my research to inquire into the reasons that the real and urgent moral imperative of limiting climate change to “safe” levels is not occurring and how it could occur. In addition to my own moral convictions, my views are also informed by my experiences in Toronto’s climate movement (more on which in the methodology section below) over the past several years. I am thus writing from the point of view of a socially engaged (and deeply morally concerned) scholar-activist. All of this has translated, in some instances in this dissertation, to insights from personal experience, occasional lapses into “I,” some more colloquial or polemical portions, and, most of all to a strong normative voice, which I hope readers will not mind bearing with and might even come to feel is justified as my argument proceeds. With that in mind, let us turn to this dissertation’s overarching questions.

⁷ W. Neil Adger and Jon Barnett note that under earlier assumptions that global warming would not exceed 2°C, it was expected that adaptation efforts would by and large be successful. But as the interconnectedness of climate impacts has been better understood, and given the likelihood that global temperatures will rise beyond 2°C (and approach 4°C), it is very possible “that the window of opportunity for adaptation is smaller than previously imagined.” They refer to this as “the new realism about climate change,” and cite it as a key reason for concern about successful adaptation efforts in the future. (W. Neil Adger & Jon Barnett, “Commentary,” *Environment and Planning*, 4, no. 21, (2009): 2801). Though currently difficult to identify, there are real thresholds beyond which adaptation projects—even those that are large-scale and well funded—will be unable to mitigate the effects of climate change, placing a brutal limit on the potential of adaptation practice (See, e.g., W. Neil Adger, Irene Lorenzoni, and Karen L. O’Brien, “Adaptation Now,” in *Adapting to Climate Change: Thresholds, Values, Governance*, ed. W. Neil Adger, Irene Lorenzoni, and Karen L. O’Brien (New York: Cambridge University Press, 2009), 6.).

⁸ See my “Climate Change, Compelled Migration, and Global Social Justice,” in *Climate Change — Who’s Carrying the Burden? The chilly climates of the global environmental dilemma*, L. Anders Sandberg and Tor Sandberg (eds.) (The Canadian Centre for Policy Alternatives, 2010) and “Towards a Justice Framework for Understanding and Responding to Climate Migration and Displacement,” *Environmental Justice* (Forthcoming).

⁹ Which I had an opportunity to do as part of a research project on climate justice and water governance in the informal settlements (“slums”) of Nairobi, Kenya with Dr. Ellie Perkins. For the findings from that project, see, Ellie Perkins (ed.), *Water and Climate Change in Africa: Challenges and Community Initiatives in Durban, Maputo and Nairobi*. Routledge Advances in Climate Change Research (Abingdon, Oxon: Routledge, 2013).

How does climate justice animate and organize struggles for a climate response in the global north, what are their potentials and limitations, and how can their prospects be bolstered? What is the nature of the economic, political, and ideological order that explains the dominance of amoral logics in the climate response and has for so long stymied the advance of climate justice? What must struggles for climate justice look like to overcome it? These are the overarching questions this dissertation seeks to answer.

2. The Meaning of Climate Justice

But before moving into those overarching questions, there is one matter that must be addressed. No straightforward answer to them presents itself because, given the multitude of pathways through which climate change raises moral concerns, *climate justice* can mean different things, changing depending on who is using it. A recognition that *climate justice* can take on different meanings is rare and comparisons of those meanings tend to be cursory when carried out.¹⁰ And yet there are important differences in their meanings, modes of inquiry, and related struggles, as the following chapters will show. To philosophers of ethics, the nature of climate justice is such that it must be investigated carefully and rigorously through moral theory to determine a fair global agreement that distributes burdens and benefits in

¹⁰ Building Bridges Collective (*Space for Movement? Reflections on Climate Justice, Social Movements and the State*, 27-29) briefly notes some differences that fall under the umbrella of climate justice, for instance in the choice of tactics and in debates about the role of capitalism in the climate response. Patrick Bond discusses (again very briefly) a few different notions of climate justice, but does so primarily to point out that they are less likely to succeed than a grassroots climate justice movement (Patrick Bond, *Politics of Climate Justice*, 196-197). Joan Martínez-Alier identifies two different approaches to climate justice in a short book review of Henry Shue's *Climate Justice: Vulnerability and Protection* and Naomi Klein's *This Changes Everything: Capitalism vs. the Climate*. See "Climate Justice: Two Approaches," in *EJOLT Report 23: Refocusing resistance for climate justice. COPing in, COPing out and beyond Paris*, eds. Leah Temper and Tamra Gilbertson (Environmental Justice Organisations, Liability and Trade, 2015).

For an excellent article-length look, see David Schlosberg, "Theorising Environmental Justice: The Expanding Sphere of a Discourse," *Environmental Politics* 22 (2013). Rather than contrast different types of *climate justice*, Schlosberg's piece is on how the discourse around *environmental justice*, has grown, particularly as climate has become a central concern.

the climate response. To many climate activists and organizations, calls for climate justice accompany a very complex assortment of demands for democratic accountability made whenever they protest UNFCCC proceedings or march en masse in city streets or block fossil fuel infrastructure or demand that universities or public pension funds divest from fossil fuels. More radical thinkers, scholars, and parts of the climate movement, meanwhile, define climate justice with reference to an anti-systemic critique of neoliberal capitalism and imperialism in a time of climate change.¹¹ It would seem we all want climate justice, but have different senses of what it means.

Rather than attempting to assert or determine whose is the more genuine or true *climate justice*, the work in this dissertation proceeds from the assumption that if climate justice is to challenge the amoral logics dominating the actions that will determine the nature of our future world, and if its prospects are to be evaluated and bolstered, then it ought to be understood in all its complexity. This unavoidably introduces another question that must be addressed at the outset of this dissertation: how can *climate justice* be conceived or defined in such a way as to reflect that complexity? In other words, what does *climate justice* mean? Section 2 presently takes up this question. Once a clearer sense of what climate justice means is established, section 3 will then introduce this dissertation's normative framework. Finally, section 4 will describe the organization and methodology of this work.

¹¹ See, e.g., International Climate Justice Network, "Bali Principles of Climate Justice," August 28, 2002, <http://www.corpwatch.org/article.php?id=3748>; *The Global Fight for Climate Justice: Anticapitalist Responses to Global Warming and Environmental Destruction*, Ian Angus (ed.) (Fernwood Publishing, 2011); Patrick Bond, *Politics of Climate Justice: Paralysis Above, Movement Below* (Scottsville, South Africa: University of KwaZulu-Natal Press, 2012); Paul Chatterton, David Featherstone, and Paul Routledge, "Articulating Climate Justice in Copenhagen: Antagonism, the Commons, and Solidarity," *Antipode* 45 no 3 (2013); Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (Alfred A. Knopf, 2014); Brian Tokar, "Democracy, Localism, and the Future of the Climate Movement," *World Futures* 71 (2015).

2.1 A Working Definition of *Justice*

Before attempting to define *climate justice* in a way that can accommodate its diverse meanings and prepare a deeper inquiry into them, it will perhaps be useful here to elaborate on the sense of *justice* itself that guided the research and writing of this dissertation and that could act as a kind of “solvent” capable of taking in a broad range of moral concerns. A three-point working definition of that sense of *justice* will here be described with each point unpacked and some discussion of how the points interrelate.

1) *Justice is concerned with the application of sound moral reasoning to determine parties’ duties and claims arising from a given moral problem of social or collective life.*

The sense of *justice* providing a foundation for this dissertation needed to be robust enough to accommodate a wide variety of moral concerns that have emerged in the context of climate change as well as the complex approaches to seeing them addressed. The reference raised in this first point to sound moral reasoning—an important part of any sense of justice¹²—is thus phrased broadly. As such, it would include many of the important standard concerns of justice, often described in terms of the dichotomy of *distributive* and *procedural* justice. For Paavola, Adger, and Huq, *distributive justice* “relates to the incidence of benefits and costs, broadly conceived so as to encompass nonpecuniary advantages and burdens” while *procedural justice* “relates to the way in which parties are positioned vis-à-vis processes of planning and decision making, encompassing issues such as recognition, participation, and

¹² See, e.g., Amartya Sen, *The Idea of Justice* (Cambridge, MA: Belknap Press, 2009), chapter 1.

distribution of power.”¹³ In the context of climate change, distributive and procedural justice together cover a very considerable deal of ground, highlighting concerns like those about who disproportionately bears the burdens of climate change; who is disproportionately responsible for it (and disproportionately benefited from the processes that created it); which principles countries should use (for example, ability-to-pay or polluter pays) to fairly divide climate mitigation and adaptation burdens and duties in the response to climate change; how measures like carbon taxes can be applied without unfairly burdening the poor; how to ensure equitable representation at climate negotiation proceedings and adaptation planning processes; and other matters discussed below. They are thus essential parts of any inquiry into justice.

But at the same time, the working definition’s appeal to sound moral reasoning about duties and claims is intended to permit and encourage a broad inquiry into the complex moral nature of a given dimension of social life, an inquiry that may identify moral concerns that are not contained (either neatly or at all) by that often-employed dichotomy between *distributive* and *procedural* justice. This broadening of the sense of justice is required to accommodate a large variety of concerns about the moral dimensions of climate change that have been raised across different struggles for climate justice.

The third point of this working definition of justice will identify where expanding the inquiry into justice beyond that dichotomy will be most important in this dissertation: in the struggles for alternative economic and political institutional arrangements that I believe are necessary to take on climate change. But to take another sort of example for now, consider one of the main concerns in recent years of the climate justice movement: the fossil fuel industry (see E1 in section 2.3 of this chapter and chapter 3 for citations and more detail). The industry constitutes a fully legally sanctioned sector of the economy whose business model *requires* the

¹³ Jouni Paavola, W. Neil Adger, and Saleemul Huq, “Multifaceted Justice in Adaptation to Climate Change” in *Fairness in Adaptation to Climate Change*, eds. Neil Adger, Jouni Paavola, Saleemul Huq, and M. J. Mace (Cambridge, MA: MIT Press, 2006), 266.

destruction of the climate; it aggressively pursues resource development on or nearby indigenous lands with deleterious effects on communities; and it has had a powerful and complex role in obstructing climate action. The moral concerns around these matters, ones that have sparked a non-violent resistance movement, are not *easily* captured by the distributive-procedural justice dichotomy but they *are* based in sound moral reasoning. What is more, that part of the climate movement facing off against the fossil fuel industry does not tend to put its demands or analysis in distributive or procedural terms, and yet sees taking on the fossil fuel industry as a matter of climate justice. Point 1 allows moral concerns like these, which are indeed based in sound moral reasoning, to enter into the inquiry into climate justice without having to attempt to refigure them to fit that dichotomy.

2) As opposed to voluntary moral action (at either an individual or state level), justice is to be guaranteed as far as possible through institutional arrangements best able to carry out and comply with moral imperatives.

If the first point prevents this working definition from becoming too restrictive, then point 2 prevents it from becoming too expansive. Identifying justice as concerned with social or collective life (the end of point 1) and as entailing something greater than voluntary moral action (point 2) anticipates and precludes from the outset the possibility that *justice* simply expands to become synonymous with all moral action.

First, these parts of the working definition make the point that it is not sufficient to qualify as justice to take on a moral action *at only an individual level*. To put this in terms of climate change for purposes of illustration, say I decide to stop driving or flying in vehicles powered by fossil fuels because I wish to reduce my participation in the changing of the climate through unnecessary travel (and perhaps you decide to buy low- or zero-emissions goods and services for similar reasons), an immoral act. But opting out of the fossil fuel system (or opting in to

low-carbon/ethical consumerism) in this way is separate from climate justice, and might more properly belong to something we can call, provisionally, a “personal climate ethics.” Individual actions of this sort—that is, actions on a person-to-person (rather than society-wide) basis motivated by goodwill—will never occur on a wide enough scale to suffice to resolve the problem. If the phasing out of fossil fuels is a matter for justice, then some way must be found of disincentivizing (and, eventually, prohibiting) fossil fuel use, and to do so at the level of a society in a fair manner rather than simply relying on people to voluntarily stop.¹⁴

The association of justice with institutions made by point 2 is part of the tradition of justice.¹⁵ It is also critical in another sense. The concerns of justice are not luxuries or optional niceties to be addressed at leisure; they are urgent moral obligations. Some form of institutional arrangements is required to, *as far as possible*, guarantee that moral imperatives are met. Those institutional arrangements can take a variety of forms—legal, democratic, economic, multilateral, etc.—so long as they are designed to be able to credibly carry out moral imperatives. In the context of climate change, this would mean the difference between a *just* response of, say, a government passing legislation that some percentage of a national carbon tax (the amount determined by some principle of justice) *must* go towards climate adaptation projects in poor and vulnerable communities¹⁶ and an *unjust* response of that same government making aid *pledges* whose amount is determined arbitrarily.

¹⁴ None of this is to suggest that an individual person cannot be part of the struggle for climate justice, however. If my individual action is one that contributes, for example, to a movement of citizens concerned with ensuring that policies are put in place so that our country (1) makes fair commitments based on principles of justice to take on its fair share of climate duties and (2) meets those commitments, then my action would, under this working definition, be part of justice.

¹⁵ John Rawls for instance notes how the basic structure of a society—“the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social cooperation”—was the “primary subject of justice.” See John Rawls, *A Theory of Justice: Revised Edition* (Cambridge, MA: The Belknap Press, 1999), 6-7.

¹⁶ This is the proposal, for instance, of Paavola, Adger, and Huq in “Multifaceted Justice in Adaptation to Climate Change,” 272.

Furthermore, because it concerns urgent moral obligations, justice *ought* to be enforced, and non-compliance with moral imperatives *ought* to be subject to some sort of penalty, which some institutional arrangement ought to be able to impose. If a state makes a pledge (rather than agrees to a binding commitment) to take action on a collective issue and if the nature and scope of that action has neither (a) been determined by sound moral reasoning nor (b) been taken as part of some institutional arrangement with the capacity to penalize non-compliance, then that state could only make dubious claims that its pledge of action is just. As discussed in the next chapter, the global climate regime has moved away from a legally binding structure, and states now make voluntary pledges of climate action. According to this working definition, the global climate regime is not currently characterized by justice.

The role of institutions in enforcing compliance also underscores the importance of point 1 of the working definition; as opposed to an edict or decree, which may be made arbitrarily and then enforced by some system of power, justice requires that parties' duties and claims have some grounding in moral reason, some *justification*. Otherwise, parties may make claims that they are not entitled to or might decide that they have no duties when in fact they do and institutions may attempt to enforce unjust rules.

3) Justice is political and concerns struggles over what the meaning of a good life is and, ultimately, what kinds of society best promote that good life.

Once the matter of institutions is raised, as it is in point 2, the question of the kind of society those institutions are to realize is opened. Point 3 thus picks up on an important matter left unfinished in point 1: that there are concerns of justice that are not neatly contained by the dichotomy of *distributive* and *procedural* justice, that “spill” over those containers. It should not be taken for granted that a just response to a crisis must work within the economic and political institutional arrangements

that support some status quo. Point 3 is intended to recognize that inquiries into justice can and should include considerations of alternative social arrangements based on concepts of the good life other than the ones that prevail.

To illustrate, the second half of this dissertation will present a critique of capitalism and liberal democracy, and the way they have shaped a response to climate change that is primarily characterized not by an urgency to prevent the worst potential scenarios, but by a logic concerned with preserving capitalist growth and profit, all while shutting out alternatives. That critique will lead to (a) a critical inquiry into the ideological underpinning of that arrangement of economic and political institutions and (b) how that existing ideological order can be challenged by alternative conceptions of the good life (and the changes to institutional arrangements they entail) that can respond more fully to climate change. In this way, the dissertation takes up a challenge presented by one of the march slogans of the climate justice movement, “System change, not climate change,” by interrogating the nature of such a system change. Must capitalist logic be taken for granted in the climate response? Is there an alternative form of society that can better respond to climate change? What notion of a good life would undergird it and what institutional arrangements are required for it? Point 3 is intended to stress that questions like these ought to be part of the search for climate justice. None of this is intended to diminish the importance of distributive and procedural justice, only to stress that once the inquiry into institutions is opened to look at possible alternative social arrangements and how they entail a change to the nature of a society, the mode of inquiry shifts away from what is easily captured in that dichotomy towards questions of what a good life can mean and into the realm of political philosophy.

Point 3 also recognizes that justice is inherently political and involves struggles and that moral reasoning alone will not suffice to achieve justice. This is why a main concern of this dissertation is to look at the political struggles to see climate justice advanced against competing amoral logics.

2.2 A Conceptual Framework of *Climate Justice*

The sense of *justice* described in the three points of this working definition sets the stage for a quite far-ranging inquiry into the meanings that *climate justice* can take on, a necessary step before analyzing struggles for climate justice and their prospects. Some means of organizing the considerable content that results from such a far-ranging inquiry is necessary.

A way forward is to recognize the following: any meaning of climate justice will have some set of moral concerns and these will relate to some kind of struggle to see them addressed. Once looked at in this way, climate justice takes on two key *facets*. First, climate justice is a lens of analysis for identifying and drawing attention to different moral concerns or problems that are potentially caused by climate change and by the processes and systemic logic driving it. Any of these concerns may be selected, invoked, or emphasized—*activated*—to declare climate change a problem of justice.

To provide a preview of how this functions (a fuller development with citations follows in section 2.1 below), climate change can be declared a problem of justice by, for example, recognizing that rich countries, through long use of fossil fuels, have contributed disproportionately to causing the climate crisis, which creates moral duties for them in the climate response based on the principle of historical responsibility. Climate change can also be declared a problem of justice by recognizing that there are people who are and will continue to be disproportionately vulnerable to the effects of climate change, particularly those in the global south.

These two moral concerns can be linked or *combined*, and indeed a combined activation of these two injustices is the most common and perhaps most important sense in which climate change is seen a matter of justice: rich countries are primarily responsible for creating a problem that will disproportionately impact the people least responsible *and* least capable of adapting to it in the poorest countries:

the actions of the well-off north are thus an imposition of burdens and threats on the poorer south.

But because there are additional ways that climate change can be declared a problem of justice there are additional areas of potential injustices that can be activated in this first facet and other ways they can be combined. For instance, there is a need for a just transition for workers in the fossil fuel industry as governments pass legislation that rapidly (at least ideally) sees the sector phased out.

This process of activation is important because problems of justice require different and often complex responses with substantive input from a wide array of actors in a way that would not occur if climate change is seen instead merely as a technocratic problem of, for example, energy governance, emissions policy, technology promotion, cost-benefit economic analysis, etc. This first facet also reveals one of the key reasons notions of climate justice are difficult to pin down: there are just so many moral wrongs associated with climate change, and not all struggles seeking climate justice are *centrally* concerned with the same ones.

The second facet of climate justice is to organize and drive responses to climate change that can address the patterns of moral wrongs activated in that first facet. That involves finding the proper *sites of contestation* in which struggles for redressing climate injustice can be effective and win out over whatever is preventing that from happening. One way to think of the difference between the first and second facets is in terms of the question each addresses. The first facet answers the question, *What are the various moral issues raised by climate change?* It answers that question by enumerating several different areas of potential moral concern. The second asks, *What does seeking climate justice drive us to do?*

The preceding discussion should suffice to put forward a definition of *climate justice*. *Climate justice* is a moral framework that (1) identifies the various moral concerns that are either causing, caused by, or otherwise raised by climate change and (2) organizes (and manifests in) responses to climate change attempting to

address those injustices. Climate justice thus represents a range of challenges to the amoral logics that have prevented a full response to climate change.

2.3 (A Brief Survey of) The First Facet of Climate Justice

This dissertation will explore that second facet, and will do so, in the chapters that follow, by investigating different types of struggles for advancing climate justice and what is blocking progress on them. Nevertheless some space should be dedicated here in this introductory chapter to acknowledging the first facet. The various moral issues of climate change raised in this facet form a background for this dissertation; they are the reason to be concerned with what a just response will entail, and it is thus important to in some way attempt to name them explicitly all in one place (an attempt I am not aware of having been made in the literature).

An important caveat should be kept in mind: this section will be an overview, a brief survey, rather than an in-depth look at the nuances or internal debates around each of these injustices or moral concerns (a few of them could have been expanded into literature reviews of their own), again, in order to acknowledge them. Despite attempts to be exhaustive below, there may be climate wrongs inadvertently neglected, and their presentation in brief means there are nuances to them that could not be developed. What follows (from here until page 41) is thus a kind of first approximation of that first facet. Nevertheless, in addition to laying some background for why we should be so concerned with climate justice, the intention in presenting the following points is to show that this first facet of climate justice makes pinning down a definition comprehensively accounting for all its content difficult. As I enumerate them, I also attempt to show how each injustice draws attention to what a just response must take into account. They are as follows:

A) Who holds which duties?

- A1. *Determining* fair duties: differential responsibility and capacity
- A2. *Accepting* fair duties

B) Who will be impacted and why?

- B1. Differential vulnerability
- B2. Colonial Legacies, environmental injustice/racism
- B3. Workers

C) What is the moral significance of climate impacts?

- C1. Violations of human rights/Violence
- C2. Challenging development progress
- C3. Loss of ways of life, unfair burdening and disruption
- C4. The human good

D) Whose voice is heard?

- D1. Participation, representation, influence
- D2. Future Generations
- D3. The non-human

E) What is driving the crisis and preventing responses?

- E1. The Fossil Fuel Industry
- E2. False Solutions
- E3. Capitalism's Hegemony
- E4. Alternative Social Arrangements: System Change, Not Climate Change

A) Who holds duties?

A first “family” of climate injustices arises in the context of global climate change governance and the effort to establish an equitable distribution of climate duties between countries of the global north and south. Foremost among the moral concerns in this family is the search for principles to fairly divide climate change responsibilities in the context of the grossly disproportionate contributions to the climate crisis that have been made by industrialized countries and their greater capacity to provide resources to developing countries for adaptation and mitigation.

A1) Determining fair duties: differential responsibility and capacity. Climate change can be seen as a matter of justice in the longstanding search for principles of

distributive justice that can be used in assigning (binding) responsibilities as part of international agreements coordinating action on climate change.¹⁷ It is a matter fraught with difficult questions regarding the nature and burdensomeness of climate mitigation, adaptation, and (more controversially) compensation duties, which factors and principles determine who is to take them on, how much of the historical emissions ought to be accounted, and more (much of which will be covered in greater detail in chapter 2).¹⁸

Nevertheless, there is longstanding and broad agreement that developed countries ought to take on the first and deepest obligations for at least three reasons. First, their contributions to cumulative greenhouse gas emissions make them primarily responsible for the climate change currently being experienced; by one measure, industrialized countries are responsible for 60% of emissions to date but have just 18% of the world's population.¹⁹ Just 6 developed countries account for 51% of cumulative emissions from 1751-2015.²⁰ Other disaggregated data on

¹⁷ For a good review, see Sonja Klinsky and Hadi Dowlatabadi, "Conceptualizations of justice in climate policy," *Climate Policy* 9 no. 1 (2009). The authors find five key principles of justice emerging from the literature: causal responsibility, preferential treatment based on need, equal entitlements (to the use of the atmosphere as a sink for emissions), equal burdens, and procedural justice. Three sets of policy emerge: (1) equitable division of the burden of climate policy, which prioritizes technical and financial efficiency in solving the problem but imposes ecological risks as a result; (2) fair distribution of economic costs and climate change impacts, which includes the latter concerns about efficiency but adds a concern for human development; and (3) compensatory justice for the costs of climate policy and liability for climate impacts, which would entail considerable transfers of resources from north to south.

¹⁸ For some surveys, see Stephen M. Gardiner, Simon Caney, Dale Jamieson, and Henry Shue, eds., *Climate Ethics: Essential Readings* (Oxford University Press, 2010); and Andreas Niederberger, "Climate Justice from the Perspective of Philosophy," in *Routledge Handbook of the Climate Movement*, (ed.) Matthias Dietz and Heiko Garrelts, 84-103 (New York, NY: Routledge, 2014).

¹⁹ Oil Change International, *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (2016), 30.

²⁰ The six countries, given in figures from James Hansen and Makiko Sato, are USA (26%), Russia (7%), Germany (6%), the UK (5%), Japan (4%), and Canada/Australia (combining for 3%). A category called "Rest of Europe and Eurasia" is another 17%. The entirety of Africa is just 3%, as is India, while China accounts for 12%. The World Resources Institute, meanwhile, finds that 66% of cumulative emissions between 1850-2011 come from just 32 developed countries: USA (25%), EU28 (27%), Russian Federation (8%), Japan (4%), Canada (2%). See Hansen and Sato, "Fossil Fuel CO₂ Emissions" (2016), http://www.columbia.edu/~mhs119/CO2Emissions/Emis_moreFigs/; and Mengpin Ge, Johannes Friedrich and Thomas Damassa, "6 Graphs Explain the World's Top 10

responsibility reveals similar patterns.²¹ Second, developed countries have left others with little “atmospheric space” to use for economic development powered by cheap and readily available fossil fuels. Those two reasons would suggest that industrialized countries owe what is frequently called a “climate debt” to developing countries²² based on the principles of *historical responsibility* and *disproportionate use of a common good* (the ability of the atmosphere to accumulate carbon without causing dangerous climate change) respectively. The third reason for why developed countries ought to take on the most burdensome climate duties is based on a different principle—*capacity* to take on climate duties—given that their own industrial and economic development through long use of fossil fuels has also left them with a greater capability to both transition to clean energy and assist others in responding to climate change.

Several frameworks for setting policy based on these principles have been proposed. The “contraction and convergence” (C&C) framework has tended to seek to establish an equal per capita amount of GHG emissions that all countries should be allowed to emit. High emitters (usually developed countries) hold a duty to bring their emissions down to that level, thereby allowing developing countries some space to increase theirs in pursuit of their economic development.²³ The

Emitters,” *World Resources Institute*, November 25, 2014, <http://www.wri.org//blog/2014/11/6-graphs-explain-world%E2%80%99s-top-10-emitters>.

²¹ Per capita cumulative historical emissions, for instance, yield some striking results. The US, UK, and Germany lead the pack, each historically responsible for about 300 tons of carbon per person (making them 10 times as responsible for historical per capita emissions as China). Canada ranks next at around 200 tons per person. For comparison, the global mean is about 50 (Hansen and Sato, “Fossil Fuel CO₂ Emissions”). Another study looked at per capita contributions to current global warming rather than to cumulative emissions. At the top are the UK (0.54°C warming per billion people) and US (0.51°C) with Canada coming in third place (0.41°C). China (0.05°C) falls well below the global average (0.11°C per billion people) despite being the current top emitter in the world. (See H. Damon Matthews et al., “National contributions to observed global warming,” *Environmental Research Letters* 9 (2014).

²² Andrew Simms, *Ecological Debt: Global Warming and the Wealth of Nations (Second Edition)* (New York, Pluto Press, 2009); Naomi Klein, *This Changes Everything: Capitalism vs. The Climate*, chapter 12.

²³ Contraction and convergence (C&C) was developed before the popularization of the *carbon budget* approach to understanding the climate crisis, which is why it tended to be concerned with finding a (near-term) per capita greenhouse gas emissions *stabilization* level. But the carbon

Greenhouse Development Rights (GDR) offers an index for assigning duties (either for mitigation or adaptation) to a nation according to a blend of *capacity*—the proportion of the population with income above a certain amount sufficient for meeting basic needs—and *responsibility*—the amount of greenhouse gas emitted since 1990.²⁴ (Oxfam’s Adaptation Funding Index uses factors similar to that of Baer et al. for determining adaptation duties.²⁵) C&C and GDR are among the most well known frameworks, but there are others.²⁶ Recently, some have begun to look towards the emissions not of rich *countries*, but of richer *individuals*, accounting for how highly economically unequal developing countries will contain a coterie of individuals living extremely high-carbon lifestyles.²⁷

A2) Accepting Fair Duties. If *determining* fair duties is one challenge for justice, getting parties to not only agree to but also *abide* by them is a different one entirely. The UNFCCC negotiation process has never succeeded in setting the world onto emissions reduction pathways that are both (1) equitable and (2) capable of

budget approach shows that there is only a limited amount of carbon that humans can ever emit, a point that will be reached very soon (see discussion in chapter 3); after that, emissions must reach zero (rather than become stabilized at some non-zero amount) to prevent further climate change. Recent work by Gignac and Matthews attempts to reconcile C&C with the need to permanently cap total emissions while also taking into account historical responsibility, something that many C&C proposals fail to do. In their framework, countries with actual per capita emissions above hypothetical equal per capita emissions accumulate over time a carbon debt that can be repaid in several ways. See Renaud Gignac and H Damon Matthews, “Allocating a 2°C cumulative budget to countries,” *Environmental Research Letters* 10 (2015) and H. Damon Matthews, “Quantifying historical carbon and climate debts among nations,” *Nature Climate Change* 6 (2016).

²⁴ Paul Baer, Tom Athanasiou, Sivan Kartha, and Eric Kemp-Benedict, “Greenhouse Development Rights: A Framework for Climate Protection That Is More Fair Than Equal Per Capita Emissions Rights,” in *Climate Ethics: Essential Readings*, eds., Stephen M. Gardiner, Simon Caney, Dale Jamieson, and Henry Shue (New York: Oxford University Press, 2010).

²⁵ Oxfam, *Adapting to climate change: What’s needed in poor countries, and who should pay*, Oxfam Briefing Paper 104 (2007).

²⁶ For example, Raupach et al. present a formula for calculating emissions quotas based upon blending two sharing principles—*inertia* (current emissions) and *equity* (population)—and also consider including gross domestic product, historical emissions, and consumption-based emissions. Michael R. Raupach et al., “Sharing a quota on cumulative carbon emissions,” *Nature Climate Change* 4 (2014), 873-879.

²⁷ Lucas Chancel and Thomas Piketty, *Carbon and inequality: from Kyoto to Paris* (Paris School of Economics: 2015).

avoiding dangerous climate change. The closest the world came to an equitable agreement on emissions reductions was under the 1997 Kyoto Protocol, which legally bound developed industrial countries to reducing emissions by an average of 5% relative to 1990 levels. But several major developed countries failed to ever meet those targets, while the US, historically the world's biggest polluter, failed to ratify the Protocol altogether.²⁸ The new model of international agreements based on voluntary emissions-reductions and climate financing pledges (discussed in detail in chapter 2) has not really addressed the matter. If not improved upon, current emission pledges made under the 2015 Paris Agreement would lead to a world-ending temperature rise of 3.5°C by 2100, as noted above.²⁹ By 2020, developed countries are supposed to see \$100bn per year “mobilized” from “a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance” towards climate initiatives in the south.³⁰ At the time of writing, pledges towards the Fund had reached a mere \$10bn.³¹

In framing as a matter of climate justice the inability or unwillingness of rich countries to set and abide by ambitious targets, A2 draws attention to possible reasons for this inability or unwillingness, which might include the absence of a strong and persistent enough democratic climate movement; dysfunctional democratic institutions; fossil fuel industry influence on democracy through contributions to pro-industry politicians or climate deniers (see E1 below); the

²⁸ On how well Kyoto signatories met their targets, see Quirin Schiermeier, “The Kyoto Protocol: Hot air,” *Nature* 491 vol. 7426 (2012), 656-658.

²⁹ Joe Romm, “Misleading U.N. Report Confuses Media On Paris Climate Talks,” *Climate Progress*, November 3, 2015, <http://thinkprogress.org/climate/2015/11/03/3718146/misleading-un-report-confuses-media-paris-climate-talks/>.

Different potential temperature rises resulting from current INDCs were reported in the media, the most widely quoted being 2.7°C. For some discussion, see Kelly Levin and Taryn Fransen, “INSIDER: Why Are INDC Studies Reaching Different Temperature Estimates?” *World Resources Institute*, November 9, 2015, <http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates>

³⁰ UNFCCC, Copenhagen Accord, 7.

³¹ Green Climate Fund, “Status of Pledges and Contributions made to the Green Climate Fund,” May 27, 2016, http://www.greenclimate.fund/documents/20182/24868/Status_of_Pledges_2016.1.15_.pdf/278bca2f-9672-4cef-a917-a637dbb46591

resistance of privileged populations or classes to giving up fossil fuels and attendant luxuries and hyperconsumption; or (neoliberal) capitalism and the underfunding of the public sphere (see E3 below).

A2 also demands consideration of the nature of the global climate agreement. The 2015 UNFCCC Paris Agreement was controversial because it did not legally bind countries to meeting their proposed emissions reductions or funding targets. After all, duties of justice are obligatory, not voluntary, and so require an institutional arrangement capable of enforcing them.

B) Who will be impacted and why?

That first family of climate injustices drew attention to responsibilities and duties. A second family of climate injustices arises from how climate change will unevenly affect people. The nature of these uneven impacts raises other matters for justice.

B1) Differential vulnerability. The Intergovernmental Panel on Climate Change defines *vulnerability* as

[T]he propensity or predisposition to be adversely affected. Such predisposition constitutes an internal characteristic of the affected element. In the field of disaster risk, this includes the characteristics of a person or group and their situation that influences their capacity to anticipate, cope with, resist, and recover from the adverse effects of physical events. Vulnerability is a result of diverse historical, social, economic, political, cultural, institutional, natural resource, and environmental conditions and processes.³²

³² IPCC, "Climate Change: New Dimensions in Disaster Risk, Exposure Vulnerability, and Resilience," in *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, ed. C.B. Field, V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, & P.M. Midgley. (New York: Cambridge University Press, 2012), 25-64: 33. This definition replaces the IPCC's earlier one, which made only implicit reference to social factors and stressed the role of physical events. The newer definition emphasizes the social context explicitly, and vulnerability can be understood independently of physical events (see *ibid*, 33). It is this definition of vulnerability that is meant in this dissertation.

Let us here distinguish between two major scales in which difference in vulnerability occurs: (1) at a macro scale between the Global North and the rest on the one hand and (2) on a micro scale internal to societies.

Countries throughout the Global South as well as Indigenous communities are projected to be those with the highest degree of vulnerability to sea-level rise, drought, extreme storms, heavy precipitation, etc. and all their attendant effects on food and water security, sanitation, housing, and so forth.³³ But due to economic and political marginalization, these are also communities with lower capacity to adapt to climate change.³⁴ As Hanna Reid sums it up in a book surveying the impacts of climate change on developing countries,

³³ For a general overview, see IPCC, “Determinants of risk: exposure and vulnerability,” in: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, ed. Field, et al. (Cambridge, MA: Cambridge University Press, 2012), 80-89; on Indigenous peoples and climate change, see Douglas Nakashima et al., *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*, (Paris, UNESCO, and Darwin: United Nations University, 2012);

There are, additionally, several vulnerability indexes. Risk analysis company Maplecroft issues an annual one, but behind a paywall, making it difficult to look at its complete results and methodology. Its 2015 index has Chad, Bangladesh, Niger, Haiti and Central African Republic—all developing countries—as the five “worst performing” countries. Europe and North America face the lowest average risk scores (Maplecroft, “Climate Change Vulnerability Index 2016,” (2015) available on Reliefweb at http://reliefweb.int/sites/reliefweb.int/files/resources/Verisk_Maplecroft_Climate_Change_Vulnerability_Index_2016_Infographic.pdf); Germanwatch annually issues its Global Climate Risk Index report. Its 2016 report finds that 9 of the 10 countries most affected by heavy weather events between 1995 and 2014 were all developing countries in the low- to middle-income range. Only Thailand was in the upper middle-income strata. Sönke Kreft, David Eckstein, Lukas Dorsch & Livia Fischer, *Global Climate Risk Index 2016: Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2014 and 1995 to 2014* (Germanwatch, 2016). Moody’s investor service recently issued a report on climate vulnerability (also behind a paywall for \$750). For a review, see Ian Johnston, “Map shows how climate change will hit the economies of the world’s poorest countries hardest,” *Independent*, November 7, 2016, <http://www.independent.co.uk/environment/climate-change-poor-countries-world-hit-hardest-affected-india-ethiopia-kenya-moodys-a7403076.html>

Additionally, there have been attempts to visualize differences between countries in emissions and vulnerability to climate impacts. Rather than sizing countries according to their geographical area, the *Carbon Map* offers maps with countries sized according to factors like population, wealth, levels of poverty, greenhouse gas emissions, etc. The sizes of countries in the map showing historical responsibility for emissions is almost the exact opposite of those in the map showing vulnerability to climate change (<http://www.carbonmap.org/>).

³⁴ In the adaptation literature, the key term is *adaptive capacity*, which describes the ability to undertake adaptation. Poor adaptive capacity can contribute to vulnerability (W. Neil Adger, Jouni Paavola, and Saleemul Huq. “Toward Justice in Adaptation to Climate Change” in *Fairness in Adaptation to Climate Change*, W. Neil Adger, Jouni Paavola, Saleemul Huq, and M. J. Mace (eds) (Cambridge, MA: MIT Press, 2006), 5). The IPCC (“Determinants of risk: exposure and vulnerability,”

Developing countries are particularly vulnerable to climate change, as are the poor and marginalised within both developing and developed countries. Many poor countries already have to cope with issues like high population density, few resources, poor governance and a high incidence of disasters. All these factors limit economic growth and exacerbate poverty [...] Changing weather conditions threaten the livelihoods of the poor, who more often than not depend on their environment more than do the wealthy. Poor people suffer most when the natural resources they need, such as land, water, fisheries and forests, become degraded, and they are at greater risk of losing their jobs. Climate change threatens their food sources and nutrition, as well as reducing the number of livelihood options available to them. They often live in fragile ecosystems that are prone to cyclones, floods or droughts. And poor people are particularly at risk from disasters because they are usually unprepared and lack adequate shelter. They also struggle more to recover from disasters when they occur. Whilst poor people have a wealth of understanding and knowledge regarding how to cope with climate change, their ability to do so is constrained by a lack of resources and information and weak institutions. So when disaster strikes, many are pushed beyond their capacity to cope and have no choice but to migrate, often to overcrowded slums, which are themselves incredibly vulnerable to climate change.³⁵

Hypothetically, even if climate change were not anthropocentric or not disproportionately caused by some actors, the stark difference between countries in vulnerability to climate impacts and capability to adapt to them would alone create duties for those with the greatest capacity to help the vulnerable. But in our real world there *is* a stark inequality in countries' historical responsibility for contributions to the climate crisis, and those countries and communities that have done the least to cause climate change are the ones to experience its most severe impacts. Macro-level differential vulnerability thus draws attention to A1 above and the search for duties owed by countries with a higher degree of (a) capacity to provide adaptation resources to vulnerable societies and (b) historical responsibility for emissions. Probing deeper, it could also call for duties from

76) notes that capacity is determined by factors including the following: "an integrated economy; urbanization; information technology; attention to human rights; agricultural capacity; strong international institutions; access to insurance; class structure; life expectancy, health, and well-being; degree of urbanization; access to public health facilities; community organizations; existing planning regulations at national and local levels; institutional and decisionmaking frameworks; existing warning and protection from natural hazards; and good governance." For more discussion of capacity in the context of adaptation, see IPCC, "Determinants of risk: exposure and vulnerability," 33, 72-76.

³⁵ Hannah Reid, *Climate Change and Human Development* (London: Zed Books, 2014), 10-11.

countries whose imperial histories contributed to the impoverishment and underdevelopment in those vulnerable communities (see B2).

But climate change will not simply affect northern and southern nations differently. Differential vulnerabilities to the effects of climate change arise because of existing unjust inequalities. The effects of climate change prey on social inequities due to age, gender, race, Indigeneity, income/class, sector of work, education, mobility, disability, health, immigration status, and more.³⁶ These factors combine in complex ways to expose people to risk of climate impacts, limit their adaptation options, and constrain their ability to recover following a disaster. It draws attention to the need to address these inequalities now as part of any response to climate change. It also puts a special onus on adaptation practitioners and policymakers to be inclusive and participatory in their planning; it would be an example of procedural injustice to deny the active participation of the most vulnerable in deciding on adaptation policy (see D1).

B2) Colonial Legacies, environmental injustice. Colonial pasts conspire in several ways to shape today's world. Roberts and Parks observe that "the way a country is 'inserted' into the world economy bears heavily upon its ability to cope with climate-related disasters."³⁷ They argue that the complex social, economic, and political structural changes imposed by colonial regimes to transform colonies into extractive economies based on a narrow range of low-value raw and barely processed materials left several legacies that increase vulnerability to climate change today. These legacies include high levels of rural vulnerability to disasters; large coastal communities exposed to flooding and storms; high economic inequality, which leaves the poor more exposed to the effects of disasters and less

³⁶ See, e.g., IPCC, "Determinants of risk: exposure and vulnerability." For a literature review of climate impacts on women, see Sam Sellers, *Gender and Climate Change: A Closer Look at Existing Evidence* (Global Gender and Climate Alliance, 2016). Available at <http://gender-climate.org/wp-content/uploads/2014/10/GGCA-RP-110616.pdf>

³⁷ J. Timmons Roberts and Bradley C. Parks, *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy* (Cambridge, MA: The MIT Press, 2007), 104.

able to adapt and recover after they hit; and weak private property right regimes that prevent access to capital, insurance, and credit, and that drive people into squatter settlements in areas at high risk of environmental disaster.³⁸

If vulnerabilities are recognized neither as natural nor random, but created, this draws our attention to past impositions on the South that the North might now need to consider in taking on its climate duties. Climate justice would then mean seeking to make reparations for those colonial wrongs and to ensure that the voices of peoples living with those colonial legacies are given the influence they deserve.

Similar colonial legacies have left indigenous communities and communities of colour located on the frontlines of fossil fuel extraction, refinement, waste dumping, and burning for power generation.³⁹ The political disenfranchisement stemming from those legacies has limited their influence on government to win stronger environmental regulation, move the sites of these activities elsewhere, or shut them down altogether. The result is that living communities become *sacrifice zones*, “places that are exploited for the purpose of supplying cheap fossil fuels and electricity to power the worlds’ growing energy demands.”⁴⁰ In Canada, fossil fuel companies undermine Indigenous nations’ sovereignty by aggressively pushing a variety of energy projects on unceded lands, as with tar sands and natural gas pipeline projects in Unist’o’ten in British Columbia, and by so degrading some lands that traditional hunting and fishing activities are endangered, as the Beaver Lake

³⁸ Journalist Christian Parenti contextualizes climate change within the history of the Cold War and neoliberal capitalism. In the South, the North’s Cold-War proxy battles left in their wake armed groups, cheap weapons, smuggling networks, and state corruption while neoliberalism led to economic crises and inequality in developing countries and withered away the governments’ ability to pursue development goals. Climate change is now acting as an “accelerant” to the problems caused by this fatal combination, creating what Parenti calls *the catastrophic convergence*. Though it is from a less academically rigorous point of view, it was a rare example (at least from what I have seen) of concerns about Cold War and neoliberal history and the effect of their legacies on the Global South in a time of climate change reaching the mainstream. Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nation Books, 2011), 8, 11 and 225-226.

³⁹ Sharon L. Harlan, David N. Pellow and J. Timmons Roberts with Shannon Elizabeth Bell, William G. Holt, and Joane Nagel, “Climate Justice and Inequality,” in *Climate Change and Society: Sociological Perspectives*, eds. Riley E. Dunlap and Robert J. Brulle, (New York: Oxford University Press, 2015), 137-139.

⁴⁰ *Ibid.*, 137.

Cree are experiencing in their territory due to tar sands extraction. Here, climate justice draws our attention to how the same processes driving climate change have been closely tied with environmental racism and injustice. These injustices even persist under one major proposed response to climate change; carbon-offsetting schemes (discussed below) have the effect of prolonging the use of fossil fuels, prolonging in turn their extraction (and their refinement near poor communities, communities of colour, and Indigenous communities) so do nothing to eliminate these wrongs.

B3) Fossil Fuel Workers. The necessary shift away from fossil fuels as the primary source of the world's energy mix will have significant consequences for workers in the industry.⁴¹ But this shift cannot be one to leave workers without an alternative means of receiving income, a challenging program given that many of them will have years of experience and training primarily in the fossil fuels sector. There must come what is frequently referred to as a “just transition” where workers can receive the training and means to successfully shift out of the fossil fuel sector and into another, the renewable energy industry the most oft-cited candidate. A series of publications on climate justice from the Canadian Centre for Policy Alternatives focuses on this just transition for workers.⁴²

⁴¹ Fossil fuels currently make up around 80% of the world's total primary energy supply. Coal accounts for around 29%, oil 30%, and natural gas 21%. Renewables account for about 14% of the global primary energy mix with hydro accounting for the bulk and around 1% from solar, geothermal, and wind. Amounts calculated from 2013 figures in IEA, *Key World Statistics 2015* (IEA, 2015), 37. Marginally different figures are given in IEA, *Key Renewables Trends: Excerpt from 'Renewables Information'* (IEA 2015), 3, https://www.iea.org/publications/freepublications/publication/RENTEXT2015_PARTIIExcerpt.pdf

⁴² See Karen Cooling, Marc Lee, Shannon Daub, and Jessie Singer, *Just Transition: Creating a green social contract for BC's resource workers* (Canadian Centre for Policy Alternatives, 2015), https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2015/01/ccpa-bc_JustTransition_web.pdf

C) What is the moral significance of climate impacts?

At the most basic level, identifying reasons for concern about climate change consists of enumerating its impacts on human systems. This would include effects like loss of life, property, or shelter from climate disasters; food and water insecurity; spread of disease; impelled migration or forcible displacement; heightened risk of instability, conflict, or war, etc.⁴³ The wrongs largely speak for themselves and often tend to be invoked without requiring further interpretation or elaboration. But to discuss these wrongs as only impacts, severe as they are, and let them speak for themselves is, if not morally detached, morally superficial. A justice lens allows and even urges us to take a deeper look, to investigate *why* these impacts are morally severe and detestable, and the nuances that just responses must adopt. That is what this third family of moral concerns addresses.

C1) Violations of human rights/Violence. Climate change can be declared a matter of moral concern because it will affect human rights. The United Nations Environment Programme (UNEP) identifies three ways this can occur: (a) through climate impacts on ecosystems, natural resources, physical infrastructure, and human settlements; (b) through poorly designed climate adaptation and mitigation responses; and (c) through the deployment of geoengineering technologies. Together they affect human rights to food, water and sanitation, health, housing, property, self-determination, mobility, and an adequate standard of living.⁴⁴

Human rights seek to provide a minimum standard protecting the dignity and equality of human beings. Which rights should be included within the human

⁴³ For an overview of these impacts, see e.g. IPCC, "Summary for policymakers" and "Human Security" (chapter 12), in *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, ed. Field et al. (New York: Cambridge University Press, 2014).

⁴⁴ UNEP, *Climate Change and Human Rights* (UNEP and Columbia Law School: 2015), 2-10.

rights canon becomes, to be sure, contentious past a certain point.⁴⁵ Caney argues that taking even a small bundle of uncontroversial rights—the right to life, the right to health, and the right to subsistence, *even when each is defined minimally*—suffices to recast the way we understand climate duties in several ways. For one, a human rights approach exposes the weakness of arguments claiming climate action should not be taken because it is too expensive: human rights take precedence over cost-benefit analysis.⁴⁶ Second, the approach also expands the climate response beyond mere adaptation and mitigation, entitling people wronged by climate change to compensation. Finally, if these human rights should not be violated due to the effects of climate change, it follows that they should not be violated as part of any response to climate change.⁴⁷

A related, if slightly different, way to identify a moral wrong of climate change is to see it as a species of violence. Violence is the supreme form of interference in a person’s or community’s ability to pursue the human good. Rob Nixon counts climate change among the phenomena he names *slow violence*, “a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all.”⁴⁸ Rebecca Solnit tells us “climate change is itself violence. Extreme, horrific, longterm, widespread violence” of an industrial and systemic

⁴⁵ Thanks to Dr. Ellie Perkins’ comments raising the point that collective or community rights do not tend to be counted within the human rights canon. My intention in C1 is to make the case *that* climate change constitutes a violation of human rights—even when they are defined minimally—without enumerating *all* of the human rights climate change violates. If collective or community rights *are* counted among the canon (as I agree they should be), climate change would surely constitute an even greater violation of human rights.

⁴⁶ Caney is not alone in pointing to the importance of rights. See also Sheila Watt-Cloutier, *The Right to be Cold: One Woman’s Story of Protecting her Culture, the Arctic and the Whole Planet* (Toronto: Allen Lane, 2015), xii-xiii.

⁴⁷ Simon Caney, “Climate Change, Human Rights, and Moral Thresholds,” in *Climate Ethics: Essential Readings*, eds., Stephen M. Gardiner, Simon Caney, Dale Jamieson, and Henry Shue (New York, NY: Oxford University Press, 2010), 163-173.

⁴⁸ Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011), 2.

nature, committed against the poor, intentionally and aggressively in the case of fossil fuel companies (thus relating to B1 above and E1 below).⁴⁹

To invoke the term *violence* evokes something more egregious and visceral than a violation of human rights. But they are similar in that both focus urgent attention on who experiences severe harm and how it can be stopped. And both prioritize a rapid, ambitious, and comprehensive response to climate change over other considerations. As Solnit put it, “Once we call [climate change] by name, we can start having a real conversation about our priorities and values.”⁵⁰

C2) *Challenging development progress*. Like rights, *development* is another contested term. But if it is understood as the process required for improving the human condition and allowing the world’s poorest to pursue the human good, then its interruption and reversal by climate change surely constitutes an injustice. The wide-ranging effects of climate change threaten to not only make development more difficult to achieve, but to undo much of the progress achieved in alleviating poverty, reducing malnutrition, providing water and sanitation, and so on—all necessary to pursue the good.⁵¹ As the United Nations Development Programme’s 2007/2008

⁴⁹ Rebecca Solnit, “Call climate change what it is: violence,” *Guardian*, April 7, 2014, <http://www.theguardian.com/commentisfree/2014/apr/07/climate-change-violence-occupy-earth>

⁵⁰ In the wake of the November 2015 terrorist attacks, the French government controversially banned the marches planned for the major United Nations climate negotiations a few weeks later. Naomi Klein condemned the decision as one prioritizing the security of the elite over the security of people using the march as a rare opportunity to be heard in their fight for survival. Drawing on Solnit, she wrote that climate change “is a violence so large, so global and inflicted against so many temporalities simultaneously (ancient cultures, present lives, future potential) that there is not yet a word capable of containing its monstrousness. And using acts of violence to silence the voices of those who are most vulnerable to climate violence is yet more violence.” Naomi Klein, “What’s really at stake at the Paris climate conference now marches are banned,” *Guardian*, November 20, 2015, <http://www.theguardian.com/commentisfree/2015/nov/20/paris-climate-talks-protesters-hollande-violence>

⁵¹ For an excellent survey compiling the *Up in Smoke* reports on climate change and development published by the International Institute for Environment and Development see Reid, *Climate Change and Human Development*. For an earlier but influential look at how climate change will affect development, see chapter 4 of Nicholas Stern, *Stern Review: The Economics of Climate Change* (Cambridge University Press, 2007).

Human Development Report focused on the effects of climate change on development put it,

All development is ultimately about expanding human potential and enlarging human freedom. It is about people developing the capabilities that empower them to make choices and to lead lives that they value. Climate change threatens to erode human freedoms and limit choice. It calls into question the Enlightenment principle that human progress will make the future look better than the past.⁵²

Invoking this wrong keeps focus on the poor in the poorest nations and how their prospects to realize the human good, however defined, will be undermined by climate change. It also draws our attention to how climate change undoes tremendous efforts over decades to address the effects of poverty; the key finding of a recent in-depth report from the Lancet and University College London was that “The threat to human health from climate change is so great that it could undermine the last fifty years of gains in development and global health.”⁵³ The World Bank estimates that without serious action on climate change and in the absence of “rapid and inclusive” development, 35-122 million additional people could find themselves in poverty by 2030.⁵⁴

A second matter concerning climate change and development is how what some call the “right to development” can be protected at the same time that the world phases out fossil fuels.⁵⁵ How are poor countries to provide energy for their

⁵² United Nations Development Programme, *Fighting Climate Change: Human Solidarity in a Divided World*, Human Development Report 2007/2008, 1.

⁵³ These health effects of climate change will not only be visited *directly* upon populations through disruptions to food systems, morbidity, etc., but also through *indirect* impacts of social insecurity and compelled migration. “The Lancet: Climate change threatens to undermine the last half century of health gains,” *Lancet Commission on Health and Climate*, <https://climatehealthcommission.files.wordpress.com/2015/04/press-release-health-and-climate-commission.pdf>

⁵⁴ The authors of the report consider even this figure to likely be an underestimate. (See World Bank, *Shock Waves: Managing the Impacts of Climate Change on Poverty* (2015), 12-15.) Even in the US, a government report found that climate change will threaten the health of every American. Suzanne Goldenberg, “Climate change threat to public health worse than polio, White House warns,” *Guardian*, April 4, 2016, <http://www.theguardian.com/environment/2016/apr/04/climate-change-public-health-threat-white-house-report>

⁵⁵ A prominent example of how sustainable development is conceived as a right (and one that requires special protection in the response to climate change) comes from Ecoequity’s Greenhouse Development Rights. (See, e.g., Paul Baer, Tom Athanasiou, Sivan Kartha and Eric Kemp-

economic development? How will rich countries transfer to them the means to increase the availability of renewable energy? This draws our attention to the importance of provisions in the current global climate regime specifying the nature and amount of north-south financial transfers and whether or not the duties described therein are being met, thus relating to C1 and C2 described below.

C3) Burdening Communities and Threatening Ways of Life. Climate change threatens to radically and rapidly transform the environmental conditions on which a variety of traditional and indigenous lifestyles depend. In low-lying developing island states, sea-level rise will drown the environments entirely.

Inuit environmental activist Sheila Watt-Cloutier describes a “right to be cold.” The arctic climate is the one under which Inuit culture has thrived for thousands of years, and Watt-Cloutier describes it as an educational institution where people learn a variety of invaluable life skills through cultural practices adapted to the environment. Hunters, for instance, learn not just to hunt, but also to develop patience, endurance, and the ability to make decisions under pressure. She has described climate impacts in the Arctic in terms that non-Inuit people of the south can comprehend, asking audience members to imagine all post-secondary institutions suddenly beginning to crumble.⁵⁶

Serious questions arise about how and whether, in the case of mass displacement, relocation, or drastic environmental change, cultural integrity can be maintained. What is unique about this wrong is that it cannot be redressed—at least not fully—through compensation; it has to be stopped. That adds an extra onus to take more ambitious action on climate change, and also directs attention to the

Benedict, *The Greenhouse Development Rights Framework: The right to development in a climate constrained world* (2008); See also, chapter 5 in Darrell Moellendorf, *The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy* (New York: Cambridge University Press, 2014).

⁵⁶ Sheila Watt-Cloutier, *The Right to be Cold: One Woman's Story of Protecting her Culture, the Arctic and the Whole Planet*, (Toronto: Allen Lane, 2015); Sheila Watt-Cloutier, Planet IndigenUS: In Conversation with Sheila Watt-Cloutier, Planet IndigenUS and International Festival of Authors (IFOA) Weekly, Harbourfront Centre, Toronto, August 4, 2015.

power differential at play in international climate negotiations: how much say do those cultures facing existential risks hold (D1)?

However, loss of a way of life is not in every case inevitable and to suggest otherwise can risk ignoring people's agency in their ability to take action or even fight for mitigation and adaptation action from polluting actors. The Pacific Climate Warriors, a network of climate activists from several impacted Pacific islands, have taken a series of direct actions including using traditional canoe flotillas to blockade coal ships under the banner "We are not drowning, we are fighting!" The wrong in this case is not that a culture now verges on extinction or that a community is beyond saving, but rather that its members have *had the burden of preserving it imposed upon them* through no fault of their own. People might also be able to preserve their modes of life and wellbeing through adaptation measures, but they would not have to be undertaking adaptation if not for the change in the climate caused disproportionately by other actors (A1). Speaking of indigenous people's resilience, Tom Goldtooth, Executive Director of the Indigenous Environmental Network, states, "We have certain knowledge that we're able to adapt, but we should not be put into a position of *forced* adaptation or *forced* change [...] Our forecast as indigenous people is that, yes, we will survive, but we shouldn't have to go through all these difficulties [...] We should not be put in that position." Goldtooth also notes the difficulty of migration as an adaptation measure in a settler-colonial context (relating to B2 above).⁵⁷

C4) The human good. Justice has long been concerned with seeking the human good, that highest pursuit or condition which each person should be guaranteed the possibility to engage in or achieve. The human good and the conditions required for it have been conceived in too many ways to go into detail about here, but authors have discussed how climate change presents serious threats to several of them,

⁵⁷ Tom Goodtooth, "What does climate change mean for indigenous communities?" Youtube video, 7:03, uploaded December 27, 2011 by "One World TV," <https://www.youtube.com/watch?v=PFRxJFUefw8>

whether conceived of in terms of capabilities (or flourishing), sufficiency, economic growth and progress, or even pursuit of scientific knowledge and advancement.⁵⁸ (I would also include here concerns about how severe climate change would destroy conditions for human civilization, civilization standing in as shorthand for the human good.)

D) Whose voices are heard?

A fourth category of moral concerns stems from how those who are and will be most severely affected by climate change are poorly represented in climate policy discussions.

D1) Marginalization in participation, representation, influence. Those most affected by climate change ought to have a high degree of say in deciding how the world will respond and through what measures. But it is the representatives from the richest states that tend to have the most influential role at international climate negotiations. Voices from grassroots organizations, peasant movements, vulnerable communities in the Global South, underserved communities of colour in the Global North, etc., tend to find louder expression in assemblies and marches held in parallel to—but outside of—the official climate negotiations (see chapter 3 for some discussion). But it is not simply that these actors' *participation* is suppressed. Another wrong to include here is how proposed *solutions* to the climate crisis from

⁵⁸ On *capabilities* and climate change, see David Schlosberg, "Climate Justice Beyond Equity: The Flourishing of Human and Non-Human Communities," talk presented at the American Political Science Association annual meeting, Toronto, Canada, September 2009. (See also the 2007/2008 Human Development Report cited in C2 above.) On *economic growth* and how climate change could affect its prospects, the classic example is the work of Nicholas Stern, particularly *Stern Review: The Economics of Climate Change* (Cambridge University Press, 2007). On *sufficiency*, see Edward A. Page, *Climate Change, Justice and Future Generations* (Edward Elgar Publishing, 2007). *Scientific-progress-as-human-good* originates from an unorthodox source, a sub-genre of fiction dealing with climate change called "cli-fi," specifically Kim Stanley Robinson's *Science in the Capital* trilogy (i.e., *40 Days of Rain*, *50 Degrees Below*, and *60 Days and Counting*) in which one of the main protagonists is driven to "[save] the world so that science can proceed."

grassroots organizations are left out. Groups like La Via Campesina argue, for example, that, instead of being rooted in the same profit-seeking market-based approaches that have driven the climate crisis, climate solutions should be modelled on already existing life-modes of low-carbon local communities.⁵⁹ Appeals to climate justice under D1 highlight a wrong committed against communities with fewer resources to access and influence centres of decision-making, leaving a severe disjuncture between degree of affectedness and ability to affect.

It is a clear instance of procedural injustice. This is why, in the realm of climate change adaptation, Paavola, Adger, and Huq note that decisions will need to be taken in processes characterized by procedural justice, the core concerns of which are captured in the following questions: “1. Which parties and whose interests are recognized, and how, in planning decision making, and governance of adaptation? 2. Which parties can participate in planning, decision making, and governance of adaptation, and how? 3. What is the effective distribution of power in planning, decision making, and governance of adaptation?”⁶⁰

D1 would also include the failure of ostensibly democratic institutions to be accountable to the demands of mass-based movements demanding serious, ambitious, and just policies responding to climate change. This will be taken up further in chapters 3 and 4.

D2) Future Generations. Due to inertia in the climate system, the most catastrophic potential effects of continued dependence on fossil fuels will be in the future. This means that depending on decisions taken now, members of coming generations face

⁵⁹ In anticipation of the Paris climate meeting, La Via Campesina wrote, “Food Sovereignty—based on peasant agroecology, traditional knowledge, selecting, saving and sharing local adoptive seeds, and control over our lands, biodiversity, waters, and territories—is a true, viable, and just solution to a global climate crisis caused largely by TNCs.” See, La Via Campesina, “Peasant agriculture is a true solution to the climate crisis,” September 3, 2015, <http://viacampesina.org/en/index.php/actions-and-events-mainmenu-26/-climate-change-and-agrofuels-mainmenu-75/1853-peasant-agriculture-is-a-true-solution-to-the-climate-crisis> (Original: <http://www.nfu.ca/blog/ViaCampesina-COP21>)

⁶⁰ Paavola, Adger, and Huq, “Multifaceted Justice in Adaptation to Climate Change,” 268.

possibilities of living in drastically different worlds. Climate justice here directs our attention to the responsibilities current generations might hold towards ensuring a habitable and flourishing world for them and how we may represent their interests in political and economic systems in which the unborn have no influence.⁶¹

D3) *The non-human*. The non-human world can also be deserving of climate justice. Schlosberg, for instance, argues this to be the case following from the capabilities approach to justice. Both human and non-human life have claims to justice following from their capability to exist with integrity.⁶² Susan George recently coined the term *geocide*: “the collective action of a single species among millions of other species which is changing planet Earth to the point that it can become unrecognisable and unfit for life. This species is committing geocide against all components of nature, whether microscopic organisms, plants, animals or against itself, homo sapiens, humankind.”⁶³ In *This Changes Everything*, Naomi Klein dedicates probably her most philosophical chapter to the question of how our economic system interrupts life’s ability to reproduce and writes of a “right to regenerate.”⁶⁴ The 2014 documentary *Cowspiracy* linked the issues in a different way, bringing the matter of the livestock industry’s sizeable greenhouse gas emissions into the mainstream, merging ethical concern for animal life and welfare with concerns about climate change.⁶⁵

⁶¹ For a book-length treatment, see Page, *Climate Change, Justice and Future Generations*, 2007.

⁶² Schlosberg, “Climate Justice Beyond Equity: The Flourishing of Human and Non-Human Communities.”

⁶³ Susan George, “Committing Geocide: Climate Change And Corporate Capture” (talk presented at the Seminar of the International Centre for the Promotion of Human Rights [CIPDH] and UNESCO, Buenos Aires, 1-2 September, 2016). Available at <http://www.defenddemocracy.press/committing-geocide-climate-change-corporate-capture-susan-george/>

⁶⁴ Naomi Klein, *This Changes Everything*, Chapter 13.

⁶⁵ Unfortunately, the documentary prominently cites a flawed, non-peer reviewed study arguing emissions from animal agriculture compose about *half* of all human-caused emissions, a staggering overestimate. See Dana Nuccitelli, “How much does animal agriculture and eating meat contribute to global warming?,” *Skeptical Science*, November 30, 2015, <http://www.skepticalscience.com/how-much-meat-contribute-to-gw.html>; and Cam Fenton, “#NotAllVegans,” *Medium*, December 1, 2015, <https://medium.com/@CamFenton/notallvegans-af89826d821f#.3yq8s17eu>

The 2010 World Peoples Conference on Climate Change and the Rights of Mother Earth in Cochabamba Bolivia included significant input from indigenous groups. Participants here foregrounded the sacredness of the natural world (which they recognized by referring to it as *pachamama*, Mother Earth) and saw it as deserving of basic rights. It suggests an approach to climate justice that would create duties to protect the earth in recognition of its sacred status in a number of worldviews.

E) What is driving the crisis and preventing responses?

A final family recognizes moral concerns built into the logic of the reigning energy and economic systems.

E1) The Fossil Fuel Industry. One of the most significant developments in recent years is how a large part of the climate movement has directed its attention towards the fossil fuel industry, coming to understand it as the primary enemy in the fight for the climate. To invoke climate justice with reference to the fossil fuel industry is to perceive the need to direct moral action against an entire sector of the economy. There are several reasons for this. First, and most prominently, the logic of the fossil fuel industry business model absolutely requires the destruction of the climate: fossil fuel companies' value is based on the reserves that they hold and can sell in the market. However, they currently hold more in their reserves than can ever be used if humanity seeks to maintain a decent chance of survival, and their profit model demands that all of it is burned and that new stock is found to replace it.⁶⁶

⁶⁶ See the section on divestment in chapter 3 for more. The landmark essay that brought popular attention to how the carbon content in fossil fuel industry reserves greatly exceeds the amount of carbon that can still be "safely" burned was Bill McKibben, "Global Warming's Terrifying New Math," *Rolling Stone*, July 19, 2012 <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719?page=3>. For an update on the figures therein, see Bill McKibben, "Recalculating the Climate Math," *New Republic*, September 22, 2016, <https://newrepublic.com/article/136987/recalculating-climate-math>

Second, and related, fossil fuel companies have been aggressively pushing development of fossil fuel deposits that are more difficult to access and whose production carries greater risk of harms, and of infrastructure that exposes communities to risk of pipeline spills or exploding “bomb trains” as oil is carried by rail. All of this has involved putting pressure on governments to reduce environmental regulation to permit oil exploration, production, and transportation in high-risk areas. As noted above, it fits a long pattern of creating “sacrifice zones.”

Third, governments continue to give the industry wrecking the climate massive subsidies. There are several major estimates for the size of contemporary fossil fuel subsidies ranging from, on the low end, billions of dollars per year up to trillions if negative externalities are included.⁶⁷ These subsidies go towards the industry driving the crisis and benefiting from environmental injustice (recall B3 above) at the same time that funds are desperately needed for investing in post-carbon energy systems and social infrastructure or for paying back a climate or ecological debt. Finally, the industry has poured significant funding into obstructing climate policy by sponsoring climate change denier organizations, by lobbying policymakers to adopt industry-friendly policy, and supporting pro-fossil fuel politicians.⁶⁸

⁶⁷ A 2012 study from the OECD found that between 2005-2011 its member states gave between US\$55-90 billion per year in fossil fuel subsidies in the form of support to producers and tax concessions to producers and consumers. A 2015 International Monetary Fund (IMF) study, meanwhile, produces much higher figures, estimating that global energy subsidies reached \$4.9 trillion (6.5% of global GDP) in 2013, and by 2015 were projected to reach \$5.3 trillion. Notably, the latter study includes *negative externalities*—social and environmental costs not reflected in the market price—as subsidies. See, OECD, *Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013* (2012); and David Coady, Ian Parry, Louis Sears, and Baoping Shang, *How Large Are Global Energy Subsidies?* IMF Working Paper (IMF 2015). For a comparison of fossil fuel subsidy estimates and their different methodologies, see Ambrus B ar any and Dalia Grigonyt e, *Measuring Fossil Fuel Subsidies* (European Commission's Directorate General for Economic and Financial Affairs Economic Brief Issue 40, 2015).

⁶⁸ “Dirty Energy Money,” *Oil Change International*, <http://dirtyenergymoney.org/>; Mike Gaworecki, “How Much Are Fossil Fuel Interests Spending to Sway Your Vote for Congress?” *Desmog*, October 31, 2016, <http://www.desmogblog.com/2016/10/31/how-much-money-fossil-fuels-interests-have-spent-sway-your-vote-congress>

E2) “False solutions.” Climate justice can also apply to the solutions to climate change that are being proposed under that capitalist hegemony. Rather than adopt ambitious policies to reduce emissions, developed countries have turned to the highly controversial emissions reductions schemes of emissions trading (“cap and trade”)—often made more controversial through carbon offsetting⁶⁹—and Reducing Emissions from Deforestation and Forest Degradation (REDD+).⁷⁰ These kinds of solutions—and often included alongside them are carbon capture and storage, biofuels, and a new REDD-like program for mangroves and sea grasses called Blue Carbon⁷¹—are critiqued for trying to make climate solutions accord with the existing economic system (“to make the square peg of the climate crisis fit into the round hole of deregulated capitalism, forever touting ways for the problem to be solved by the market itself,” as Naomi Klein puts it⁷²) rather than adapting our economic system to the problem. Drawing attention to false solutions also takes note of the persistent role of ideological and systemic factors in constraining ambitious responses to the climate crisis. False solutions instead prioritize economic growth and the interests of the economic elite while doing little to bring down emissions.

E3) *Capitalism’s Hegemony.* Climate justice has also been used as a way of critiquing capitalism in the context of the climate crisis. Capitalism’s grow-to-survive logic has

⁶⁹ See, e.g., Annie Leonard, “The Story of Cap & Trade,” Free Range Studios (2009), <http://storyofstuff.org/movies/story-of-cap-and-trade/>; Tamra Gilbertson and Oscar Reyes, *Carbon Trading: How it Works and Why it Fails* (Uppsala: Dag Hammarskjöld Foundation, 2009); and Durban Group for Climate Justice, “The Durban Declaration on Carbon Trading,” in *The Global Fight for Climate Justice: Anticapitalist Responses to Global Warming and Environmental Destruction*, ed. Ian Angus (Nova Scotia: Fernwood Publishing, 2011), 124-126.

⁷⁰ See, e.g., Tom B.K. Goldtooth, “Why REDD/REDD+ is NOT a Solution,” in *No REDD: A Reader*, eds. Joanna Cabello and Tamra Gilbertson (Indigenous Environmental Network and Carbon Trade Watch, 2010), 11-23, <http://noredd.makenoise.org/wp-content/uploads/2010/REDDreaderEN.pdf>

⁷¹ Salena Tramel, “Land and Ocean Grabs Not the Solution to Climate Change,” *The World Post*, February 18, 2016, http://www.huffingtonpost.com/salena-tramel/land-and-ocean-grabs-not_b_9261814.html

⁷² Naomi Klein, *This Changes Everything*, 20.

sharply constrained the kinds of policies governments and corporations have been willing to adopt. Neoliberal capitalism in particular, which sharply constrains taxation on corporations or the economic elite and rejects state economic planning, has significantly defunded the public sector at a time when massive investments in renewable energy, public transit, and adaptation projects are crucial. Its rejection of economic planning has had a chilling effect on the plans governments have been willing to adopt and their stringency.⁷³

At a historical moment when capitalism's neoliberal form has entailed economic crises, sharp economic inequality, austerity in public spending, and increasing precarity in working life, its failure to address climate change acts as a double-condemnation of the system. Not only might alternative economic arrangements better address climate change, but they can also create fairer and more meaningful modes of life. According to this argument, an insistence on resolving climate change through capitalism is thus irrational and immoral. Of course, drawing attention to this aspect of climate justice raises questions over how much of capitalism can be challenged in time to address the crisis.⁷⁴ Rooting the problem of climate change in capitalism has also allowed the climate movement to merge with parts of the global justice movement, which adopts a similar lens.

E4) Alternative Social Arrangements: System Change, Not Climate Change. Under the liberal ideological order dominant in today's world, the good life is to be pursued through the possibilities provided in the life space created by capitalism and liberal democracy, but the institutional arrangements that realize this social form place serious constraints on the climate responses being seriously considered by governments. Are there competing visions of how the good life can be pursued that

⁷³ Naomi Klein, *This Changes Everything*.

⁷⁴ Naomi Klein, "No, We Don't Need to Ditch/Slay/Kill Capitalism Before We Can Fight Climate Change. But We Sure As Hell Need To Challenge It," *The Leap Blog*, September 27, 2014, <http://theleapblog.org/no-we-dont-need-to-ditchslaykill-capitalism-before-we-can-fight-climate-change-but-we-sure-as-hell-need-to-challenge-it/>

simultaneously make fairer and fuller climate responses more likely? What would an alternative vision of a just society look like? I turn in chapters 4 and 5 to these and related questions.

* * *

The first facet of climate justice answers the question, *What are the moral concerns that make climate change a matter of justice?* An important point raised in the next section (2.4) is that different struggles for climate justice will activate different sets of *central* moral concerns. For this reason, the first facet of climate justice accounts for the different ways this question can be answered without privileging any one particular answer, which allows for varying degrees of complexity and focus depending on context and struggle. For example:

- A progressive union might declare that climate change is a matter for justice by activating D2 to assert that rapidly phasing out the fossil industry will leave some workers in need of new opportunities to earn income.
- Philosophers or activists concerned with convincing rich governments to contribute their fair share to the climate response might declare that climate change is a matter of justice because richer industrialized nations are disproportionately responsible for causing climate change (C1), the effects of which are disproportionately affecting the poorest and most vulnerable (B1).
- A diverse climate march, meanwhile, might declare that climate change is a matter of justice because richer industrialized nations are disproportionately responsible for causing it (C1), and its effects disproportionately affect the poorest and most vulnerable (B1), violating their human rights (A2) as well as undermining development prospects (A3). At the same time, those rich nations are refusing to accept and undertake their moral duties (C2) because capitalism's growth and profit imperative constrains the kinds of responses they have been willing to adopt (D3) and the fossil fuel industry has been

funding climate change denier organizations to corrupt the political discourse on the matter (D1).

Other combinations are of course possible—and that is the point. This first facet captures the various and complex ways that climate change can be declared a matter of climate justice depending on context.

2.4 (An Introduction to) The Second Facet of Climate Justice

If attempts to define *climate justice* are restricted to that first facet, the term can take on many meanings because there are so many potential ways climate change is a matter of justice. It is thus more useful to think of this first facet not as definitional on its own, but as a body of potential content that can be activated in complex ways in relation with a second facet of climate justice, one which organizes and drives responses seeking justice.

It is this second facet that this dissertation is concerned with. In the following chapters, I distinguish between three different meanings that can be given to *climate justice* once we appreciate the second facet, and I evaluate the possibilities they hold for finding just solutions to climate change in the global north. Because they all work simultaneously, I refer to them as “fronts” in the struggle for climate justice, each with a different “site of contestation” in which some form of engagement takes place to see justice advanced: (1) *climate justice as ethics*, concerned with the design of an ideally just global agreement governing the distribution of burdens and benefits among nations; (2) *the climate justice of the climate movement*, which directs its efforts to making governing elites democratically accountable for its moral demands through a variety of mass actions; and (3) *climate justice as just society*, focused on the ideological or political philosophical grounds justifying a society’s political and economic institutions. Each is concerned with different combinations of injustices of that first facet and each finds a different site (with different means) of engagement. In activating different patterns of injustice and selecting a site of contestation that

can take them on, *climate justice* thus comes to mean something different in each of these fronts.

And that creates a highly complex theatre of climate justice. In table 1 below, I offer a preliminary attempt to map out the relationship between the two facets. The point for now is to note the *central* concerns of the different fronts. So, it would be inaccurate to say people involved in, for example, the divestment movement do not care about the right to development (C2), but the tactic they are engaged in does not relate *centrally* to that injustice. Similarly, front (3) *climate justice as good or just society* focuses on questions of the good life and of capitalism as the most immediate matters to be resolved *in order to progress on the other matters* in the first facet.

Table 1: The Complex Theatre of Climate Justice

				Facet 1: Climate Injustice Activated															
				A. Who Holds Duties?		B. Who Will Be Impacted?			C. The Significance of Climate Impacts?				D. Who is Heard?			E. What is Preventing Action?			
				A1	A2	B1	B2	B3	C1	C2	C3	C4	D1	D2	D3	E1	E2	E3	E4
				<i>Det. duties</i>	<i>Accepting duties.</i>	<i>Diff. Vul.</i>	<i>Col. Hist./</i>	<i>Workers</i>	<i>H. rights/ Violence</i>	<i>Challenges to Development</i>	<i>Burdens ways of life</i>	<i>Human Good</i>	<i>Marginalized Voices</i>	<i>Future Generation</i>	<i>Non-Human</i>	<i>Fossil Fuel Industry</i>	<i>False Solutions</i>	<i>Capitalism</i>	<i>New Social Arrangement</i>
Facet 2: Fronts of Climate Justice	1) Ethics			✓	✓	✓			✓	✓		✓		✓					
	2) Climate Movement	UNFCCC Actions	Moderate	✓	✓	✓			✓	✓	✓		✓	✓					
			Radical	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	
		Divest/ Blockadia	Moderate			✓				✓					✓				
			Radical			✓	✓				✓				✓		✓		
		Climate Marches	Moderate		✓	✓		✓	✓		✓		✓	✓	✓				
			Radical		✓	✓	✓	✓	✓		✓		✓	✓		✓	✓	✓	✓
	3) Just Society										✓						✓	✓	

3. Normative Framework and Contributions to Knowledge

In describing the distinction between the three fronts of climate justice, the work that follows is not intended to be a detached, analytically distant survey of different interpretations of *climate justice*. Any parts that might read as removed or descriptive are meant to contribute to a critique founded on understanding both the contributions and limitations of the concepts of climate justice. But I am most definitely writing with a normative political framework in mind.

To give a sense of that framework, we can distinguish broadly between two ways of seeing and responding to injustice. Let us call them a contextually situated justice and a far-reaching justice. *Contextually situated justice* seeks immediate or expedient solutions given the relevant political and economic institutions governing the system in which the injustice arises. Allowing the injustice, whatever it is, to persist or worsen would be unjust. In responding to it, there is a claim to justice: those who require a solution are receiving it; it is being distributed to them, but it is being done without disrupting the context in which the ill arose. It thus seeks to achieve justice as best as possible within that given *context*. In addition to concerns with pragmatism, those holding to a contextually situated justice may believe (or take for granted) that the institutional context has strong claims to having created a just society, so that deviating from it would be harmful.

Contrast that with a more *far-reaching* justice. Here, injustices reveal systemic problems, as they arise from or are sustained by some deep function of the political and socioeconomic institutions that govern our lives. Addressing injustice requires a search for a political project able to shape a new society animated by different principles than those that gave rise to and preserve the system of injustice. This second form of justice thus seeks radical systemic change. Under this perspective, *contextually situated justice* would be problematic for two reasons. First, a superficial understanding of injustices reveals little about the system that created them or has prevented them from being addressed, and so those injustices

do not become cause to fundamentally alter that system. The injustice must be framed in a way that the system is capable of remedying; it becomes reduced to an exercise in problem solving. As the system takes on the injustices, the larger problems that the ills (should have) revealed are re-observed. Second, contextually situated justice might be *falsely* pragmatic, displaying a bias for the status quo when that status quo could be changed quite feasibly and for the better. Such pragmatism would thus be a compromise on seeking a deeper good. However, a *far-reaching justice* is disadvantaged by definition. It is counter-systemic and thus lies in opposition to powerful interests among elites as well as to intuitive acceptance among much of the *demos*. The radical changes it proposes may not have been demonstrated to present viable alternative social arrangements.

This clearly creates a tension in the context of climate change. On the one hand, is it just to pursue radical change if that change is highly unlikely given current conditions and time remaining to act on climate—that is, if it is not pragmatic? On the other hand, how just is it to try to work within a system sharply constraining the possibilities for just solutions?

I situate my own views under the far-reaching sense of climate justice, and use it in this dissertation as a vantage point to level a systemic critique concerned with (1) how struggles for climate justice are constrained by the reigning political and economic order whose institutions are hostile to the kind of ambitious action required to address climate change and deal with its consequences and (2) the limitations of a world ushered in if only a contextually situated climate justice is pursued.

Adopting far-reaching justice also leads to an inquiry into the full scope of the systemic change that can occur within the unique and fateful political moment that climate change has created. In one important respect, climate change is very different from that other anthropogenic existential threat—nuclear war. The technologies destabilizing the climate—coal plants, internal combustion engines, gas turbines, and the rest—were not created for the purpose of mass destruction.

Rather, climate change is an accident, the unintended consequence of the normal functioning of multiple interlocking systems that make up the modern world. It thus signals that one or several of those systems can no longer function in the same way and must be changed or replaced if we are to preserve a livable climate. But where within the complex of our system—of our *globalized, capitalist, liberal democratic, industrial civilization*—does the primary source of the problem lie? Which part of it is preventing us from turning away from fossil fuels and bringing greenhouse gas emissions down? Does that part perform a function necessary to creating a good or just society? If not (and especially if it is in fact inimical to the creation of such a society), why should our efforts to take on the climate crisis be hampered by efforts to preserve it?

This introduces a kind of condition—call it a proviso of far-reaching climate justice. Like nothing else before it, the threat of climate change makes the continued commitment to our dominant political and economic institutions open to challenge and transcendence (1) if they can make only weak claims to having created a just society and (2) if they constrain just responses to the climate crisis. As I will argue, both conditions hold. The climate crisis thus offers an extremely rare moment of emancipatory potential that ought to be seized by progressive democratic movements to not simply limit climate destabilization, but to usher in a more just society in the process. It is a moment that many left-progressive thinkers and activists have described, most prominently Naomi Klein. As she suggests in the title of her book, *This Changes Everything*, climate change presents a stark choice: if we do nothing, as she puts it, “climate change will change everything about our world”; if we seek to do the things to prevent that, “the catch is that these also involve changing everything” but in a way that is “distinctly un-catastrophic.”⁷⁵ Under

⁷⁵ She writes, “through conversations with others in the growing climate justice movement, I began to see all kinds of ways that climate change could become a catalyzing force for positive change [...] the best argument progressives have ever had to demand the rebuilding and reviving of local economies; to reclaim our democracies from corrosive corporate influence; to block harmful new free trade deals and rewrite old ones; to invest in starving public infrastructure like mass transit and affordable housing; to take back ownership of essential services like energy and water; to

contextually situated justice, this moment of emancipatory potential is lost, either because it goes undetected or the potential for change it offers gets dismissed. But under far-reaching climate justice, it is a moment in which we may begin to think about the nature of a society that is simultaneously more just and better able to respond to the climate crisis and all its attendant injustices.

* * *

This dissertation is intended to contribute to the literature on climate justice and climate change politics in several ways. First, it posits a conceptual framework of *climate justice* that accommodates a broad array of content. In so doing, it accounts for the complexity of the term and the flexibility with which it has been (and can be) used without privileging any particular meaning of *climate justice* as being somehow more authentic than another. Second, that conceptual framework launches an in-depth comparison between different senses of climate justice and an analysis of the contestations they entail, something, as noted above, that has been missing from the literature.

Third, the normative framework for this dissertation contributes to deepening discussions about fundamental economic and political system changes that I believe are vital to lessening the impact of developed nations on the climate. Political transformation of this order can be carried out democratically in Canada and internationally, and that will require public deliberation and education about (a) *why* such a transformation is required and (b) *what* it would look like. It is appeals to morality, empathy, and desire for justice that can provide a motive force for that transformation (the *why*): looking at the climate crisis through this normative framework leads this dissertation to assert that system change is an integral part of carrying out moral duties in the context of climate change. The

remake our sick agricultural system into something much healthier; to open borders to migrants whose displacement is linked to climate impacts; to finally respect Indigenous land rights—all of which would help to end grotesque levels of inequality within our nations and between them.” *This Changes Everything*, 7.

normative framework also brings the inquiry into climate justice into the realm of political philosophy and critical political theory and it leads this dissertation to conclude on an attempt to explore and further develop a positive alternative vision of a more just society better able to take on its climate duties (the *what*). With that in mind, let us turn to the chapter layout and methodology of this dissertation.

4. Chapter Layout and Methodology

The next chapter, “Climate Justice as Ethics,” focuses on philosophers specializing in normative ethics who apply moral theory to determine how the world ought to respond to climate change. Here, I conduct a literature survey drawing primarily on a particular community of philosophers looking at climate change. Members of this community tend to publish prominent book-length works (as opposed to only article-length), which are handled by major academic publishing houses (e.g., Cambridge University Press, Oxford University Press); they regularly reference one another’s works (in the case of an important survey called *Climate Ethics: Essential Readings* several of them even collaborated together as editors of the volume); and they tend to understand the problem of climate change as a global collective action problem requiring a binding agreement to prevent non-compliance.

What emerges is a sense of climate justice that is primarily concerned with defining a just global institutional architecture, one capable of fairly distributing international duties to reduce greenhouse gas emissions in accordance with what climate science asserts is required to prevent dangerous climate change. A first priority of *climate justice as ethics* is thus to provide some guidance for—or standards for evaluating progress on—achieving the ultimate aim of the United Nations Framework Convention on Climate Change (UNFCCC), which is to “protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated

responsibilities and respective capabilities.” In addition to these mitigation duties, there has also been some attention given to describing the duties associated with adaptation aid and, especially in recent years, payment for loss and damages resulting from climate change. Using an organizational scheme I adapt from Stephen M. Gardiner,⁷⁶ this chapter surveys ethicists’ search for principles that can form the basis of prescriptions for achieving climate justice. The chapter concludes by noting the large discrepancy between those prescriptions and what has actually occurred in climate negotiations up to the 2015 Paris Agreement. Since climate talks began in 1992, they have so far failed to produce an agreement capable of leading to the rapid greenhouse gas emissions cuts required to avoid dangerous climate change. (As frustrated youth delegates to the UNFCCC negotiations have told negotiators, “You have been negotiating all my life!”⁷⁷) Something more is needed to make the UNFCCC parties act than guidelines for a just architecture.

This is where the climate movement enters the picture as I show in Chapter 3 “Climate Justice and the Climate Movement.” For this chapter, I “read” the sense of climate justice that emerges from the movement’s most prominent actions: its diverse forms of agitation at the UNFCCC; the organization of mass marches and demonstrations; the attempts to blockade fossil fuel infrastructure development projects; and the rapidly growing fossil fuel divestment movement. There is meaning not only in the demands that accompany movement actions, but also in the forms those actions take, their messaging, their timing, and their locations. In the movement’s version of climate justice, states are committing serious injustices by refusing to adopt ambitious climate policy, and are going to continue to do so if left to their own devices. The movement’s engagement with the problems of climate

⁷⁶ Stephen M. Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (New York: Oxford University Press, 2011)

⁷⁷ See Christina Ora, “As climate talks drag on, low-lying atolls are already being flooded” *The Sydney Morning Herald*, December 11, 2009, <http://www.smh.com.au/federal-politics/political-opinion/as-climate-talks-drag-on-lowlying-atolls-are-already-being-flooded-20091210-km57.html>; and Anjali Appadurai (2014) in “Anjali Appadurai on Climate Justice: “ ‘You have been negotiating all my life. Get it done!’ ” *Ceasefire Magazine*, January 20, 2014, <https://ceasefiremagazine.co.uk/anjali-appadurai-climate-justice-you-negotiating-life-done/>

justice, then, is to attempt to insert itself into climate policymaking by exerting popular pressure on economic and political institutions using a variety of tactics and moral and economic arguments to make them accountable to a mass-based democratic movement. Particularly in recent years, the movement has also come to link up with other important related social justice struggles not typically observed by climate ethicists, most notably matters of environmental justice, for example the siting of destructive fossil fuel infrastructure projects on or near to indigenous lands.

The literature surveyed and arguments presented in that chapter are deeply informed by experiences and observations that stem from my involvement in Toronto's climate justice movement over the last several years, which included taking part in hours upon hours of planning meetings and discussions; hearing about or even witnessing serious intra- and inter-group disagreements concerning foundational principles and effective strategies; attending various climate talks, film screenings, and workshops, and their accompanying Q&As; looking at hundreds of email blasts and articles concerning climate politics shared over social media by contacts in the movement; and taking part in some of the prominent actions and strategies covered in the chapter (including as one of the leads of York University's fossil fuel divestment group).

These experiences have been informative and revealing, and left no doubt that a strong and diverse climate justice movement will be essential if dangerous climate change is to somehow be prevented or minimized. At the same time, alongside these experiences came some nagging personal doubts about the possibilities of these actions leading to our demands being met within the current political and economic context. Following a large climate march through downtown Ottawa in 2015, I recall one of my more radical contacts from Toronto's climate movement writing something on his Facebook wall like, "Surely we can do better than yell at some empty offices on a Sunday afternoon." To what degree are those of us in the climate movement through our most prominent actions making political and economic

elites accountable to our demands, especially our most ambitious and radical ones? Are we taking actions with the assumption that the existing system of political and economic power is more “pliable” to those demands than it really is? Do these actions amount to significantly more than yelling at empty buildings on the weekend?

So, in addition to reading the sense of climate justice that emerges from movement actions, I also felt that Chapter 3 would not be complete without looking at two important tensions within the movement. The first tension arises from the movement’s diversity; it is composed of two broad currents, one moderate, the other radical. While both participate in the same prominent actions, they make different demands for climate justice. The second tension is between, on the one hand, the movement’s demands and, on the other, the nature of the reigning economic and political order, which has shown itself unwilling to take on the movement’s more ambitious demands (and is particularly true of the radical current’s demands).

This is where my normative framework begins to show. I argue that the two previous types of climate justice are constrained in what they can achieve and are unable to see their prescriptions enacted so as to reach very just solutions. The climate justice of moral philosophy seeks ideal moral arrangements, yet amoral states are under no imperative to accept them. Meanwhile, the justice of the climate movement is limited in its possibilities to the extent that it appeals to governments that prioritize the continuation of political and economic systems only capable of accepting a very limited range of climate policies and of implementing them gradually and weakly. Lying behind this impasse are the workings of a political-economic order whose logics make it hostile to the prescriptions of these kinds of climate justice.

A third type of climate justice is required of a more far-reaching variety, one that identifies the source of the constraints on climate policy in the political and economic order inhering in modern liberalism, “the liberal order,” as I will refer to

it. In Chapter 4, “The End of History and the End of the World” I turn to political philosophy to give a sense of why a committed liberal would believe that capitalism and liberal democracy—the institutions that realize the liberal order—form the foundation of a just society, and so cannot be altered even in the face of climate change. I then use a conceptual model to show how these same institutions act to filter out a series of climate policies and to constrain democratic support behind them.

Climate justice, I will argue, thus needs to entail a search for a different mode of life. Without that, there are two possibilities. The most likely is that the liberal order, in attempting to reconcile the need for capitalist growth with the need to reduce emissions all while constraining the depth and intensity of democratic participation, will push the climate crisis into extremely dangerous territory. Another possibility, though less likely, is that the liberal order will manage to address the climate crisis but will preserve a mode of life that fails to address a host of concerns about human freedom and wellbeing or flourishing. As I discuss at the beginning of Chapter 5, this would carry over into the world on the other side of the climate crisis a search for the good life through commodity consumption based on endless and ever more extreme resource development; the legitimacy of corporate control over production and distribution of goods; work lives without meaning; continued encroachment on natural limits; and the belief that technology will save us from it all. As I note there, there is a brutal irony in refusing to act decisively on climate change because it will change our system when that system is one that probably should be changed.

The third type of climate justice must be one that begins to shake free from the constraints of the current liberal political and economic order and its institutions, and that can, in this freedom, create a more just society capable of truly attending to the climate crisis in its various dimensions. To address this matter I turn, in Chapter 5, to several alternative frameworks for understanding climate change that step outside of the liberal order based in the climate politics literature. I describe how

they offer possibilities for a more far-reaching climate justice by providing principles around which a more just society can be built, one relieved of the constraints on climate action imposed by the liberal order. I then consider the prospects of the recent political project in Canada centered on the Leap Manifesto. I draw on critical political theory to end with a discussion on the possibilities of reviving a political project that I believe may be capable of transcending liberalism's growth imperative, but preserve its concern for people's plans of life, one built around the notion of *capabilities*.

II. Climate Justice as Climate Ethics

This chapter examines the first understanding of climate justice and how it can be used to direct action on climate change: *climate justice as climate ethics*. Climate justice as climate ethics is best conceived as an approach to the problem of climate change using moral theory in order to describe some ideally fair global approach to climate change that fully takes into account the stark inequalities between parties in responsibility for causing, capacity to respond to, and vulnerability to climate change. Its work is primarily directed towards the site of global climate negotiations: the United Nations Framework Convention on Climate Change (UNFCCC). That ideal approach may be compared against the real-world UNFCCC developments to serve as a basis of judgment or as a model to strive for, or may serve as a way of bearing witness to wrongs even where there is little hope that that ideal approach is taken up by existing institutions.⁷⁸

The body of literature on climate ethics is vast, and covers a range of theoretical perspectives on justice. The approach used in this chapter to survey that literature departs from some existing efforts to categorize those perspectives.⁷⁹

⁷⁸ For example, Paul Baer et al. proposed their Greenhouse Development Rights framework (discussed below) as “a ‘reference framework’ by which the adequacy and fairness of any proposal can be judged.” Paul Baer, Tom Athanasiou, Sivan Kartha, and Eric Kemp-Benedict, “Greenhouse Development Rights: A Framework for Climate Protection That Is More Fair Than Equal Per Capita Emissions Rights,” in *Climate Ethics: Essential Readings*, eds., Stephen M. Gardiner, Simon Caney, Dale Jamieson, and Henry Shue, 226. Stephen A. Gardiner raises the point of bearing witness in *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (New York: Oxford University Press, 2011), 437.

⁷⁹ Sonja Klinsky and Hadi Dowlatabadi (“Conceptualizations of justice in climate policy,” *Climate Policy* 9 no. 1 (2009)) identify five principles of justice in their literature review: causal responsibility, preferential treatment based on need, equal entitlements (to the use of the atmosphere as an emissions sink), equal burdens, and procedural justice.

Darrell Moellendorf (“Climate change and global justice,” *WIREs Climate Change* 3 (2012)) conducts a broad literature survey intended to review the most important matters of climate change and global justice. It includes a discussion of different approaches to justice in assigning mitigation responsibilities: responsibility for historic emissions, ability to pay, grandfathering (i.e., reducing emissions relative to some historical baseline), equal emissions entitlements, and the right to sustainable development. He concludes with a look at applying justice frameworks to adaptation duties.

First, in order to consult this large literature in a way that is manageable, but representative of the kinds of matters climate justice as climate ethics is concerned with, the material surveyed here is primarily taken from a prominent community of philosophers specializing in normative ethics (whom I will refer to as “climate ethicists” as a shorthand in what follows) as described in the previous chapter. Second, in order to introduce into this survey a means of highlighting how climate change poses a series of difficult ethical challenges on multiple dimensions, I turn to an organizational scheme developed by Philosopher Stephen M. Gardiner.

Gardiner describes the fundamental problem of climate change through the metaphor of “a perfect moral storm,” a convergence of three smaller “storms”—the global, the intergeneration, and the theoretical—each composed of difficult moral issues, and each interacting and reinforcing one another to together yield an incentive structure that discourages actors from taking action on climate change:

The peculiar features of the climate change problem pose substantial obstacles to our ability to make the hard choices necessary to address it. Climate change is a perfect moral storm. One consequence of this is that, even if the difficult ethical questions could be answered, we might still find it difficult to act. For the storm makes us extremely vulnerable to moral corruption.⁸⁰

In the perfect moral storm...the current rich “kick” the current poor, and both “kick” future generations. But the “kicking” is unlikely to stop there. Chances are that many of the costs of our problematic ways of life will be passed on to other species.⁸¹

I use each of Gardiner’s storms as an occasion to describe ways in which climate ethicists have attempted to wrestle with various moral challenges, and close

Another survey is given in Andreas Niederberger, “Climate Justice from the Perspective of Philosophy,” in *Routledge Handbook of the Climate Movement*, (ed.) Matthias Dietz and Heiko Garrelts, 84-103 (New York, NY: Routledge, 2014). Niederberger identifies the following debates in the literature: climate justice vs. social justice; climate justice as an individual virtue or responsibility; polluter pays principle vs. beneficiary pays principle; individual claims vs. collective claims; the development of sufficientarianism into prioritarianism ; and intergenerational justice.

⁸⁰ Gardiner, *A Perfect Moral Storm*, 22.

⁸¹ *Ibid.*, 44.

the discussion on each storm with considerations of how it discourages action on climate change even if its difficult questions are answered.

The intent in surveying climate ethics in this way in part 1 of this chapter, is to give a sense of the kinds of matters climate justice as climate ethics deals with (bearing in mind of course that there is a variety of approaches to climate justice as climate ethics) as well as the thoroughness and carefulness with which it does so. But I also seek to give a sense of its boundaries, which may not extend far enough to deal with an important shift in climate negotiations since COP15 in 2009 that has disrupted the applicability of the kinds of climate responses that emerge from moral philosophy, a matter taken up in part 2 of this chapter. The real-world UNFCCC negotiations have undergone a kind of “mutation,” shedding or recasting some of the principles and features climate ethicists have, since the early years of thinking about climate ethics, insisted upon. It is not altogether clear yet what impact this will have on the future of climate ethicists’ engagement with climate justice.

1. “A Perfect Moral Storm”

1) The Global Storm

Gardiner’s *Global Storm* describes the spatial features of the climate crisis that prevent the action climate justice demands. Unlike other environmental problems, carbon pollution responsible for climate change (1) is caused by countless emissions sources worldwide rather than a small number of major polluters; and (2) has impacts that occur far from their points of origin rather than in local environments. National governments must address this situation by enacting policies to curb emissions originating within their borders as part of an international agreement recognizing the far-reaching consequences of climate change. Any such effort would, however, be complicated by several important moral issues originating in the world’s economic divisions.

1.1 Egalitarian Assumptions and Conceptualizing an Atmospheric Commons

We all share, as the title of ethicist Peter Singer's influential work reminds us, "One Atmosphere." This one and only atmosphere possesses a unique property: to maintain a stable climate while absorbing the greenhouse gas waste product of activities that have proven necessary for improving human wellbeing (activities which run the gamut from subsistence agriculture to electricity and heat generation to industrial production and transportation. Due to its role in the maintenance and promotion of wellbeing, this atmospheric property can thus be conceived as a good or resource.⁸² It can also be conceived of as one held in common for several reasons. First, no one may take ownership of it in a way that somehow prevents another's emissions from entering the atmosphere or excludes others' enjoyment of a stable climate.⁸³ Second, emissions do not remain fixed in their area of origin but become well mixed throughout that one global atmosphere. And finally, alterations to that one atmosphere have consequences shared worldwide (though not equally) due to another important property: the atmosphere's ability to absorb GHGs *safely*—that is, without dangerous climate change—is *limited*. To summarize, as Singer puts it, "The atmosphere's ability to absorb our gases has become a finite resource on which various parties have competing claims. The problem is to allocate those claims justly."⁸⁴

How those claims are to be allocated in a just manner—the main problem that arises in and is confounded by the global storm—depends on the approach to justice taken. One such approach conceives of climate justice within an egalitarian framework informed by cosmopolitan theories of global justice, one in which

⁸² Vanderheiden for instance notes that the atmosphere "may appropriately be considered as a global primary good. The critical importance of its capacity to produce a stable climate cannot be underestimated because it is absolutely vital for the continuance of life on this planet and instrumental to human flourishing." *Atmospheric Justice*, 79.

⁸³ Vanderheiden notes "Although persons or nations may make claims on the as theirs to use when they emit GHGs, these claims cannot draw on existing theories of entitlement to property, since the resource transcends political borders and is not the sort of good that can be appropriated from the commons by being improved, as through a Lockean labor theory of value." *Atmospheric Justice*, 103-104.

⁸⁴ Peter Singer, "One Atmosphere," in *Climate Ethics: Essential Readings*, 188.

climate justice is built up from a first principle that all persons are moral equals.⁸⁵ I describe in this section on the global storm how that approach has been used to identify elements of justice that ought to be part of an international treaty.

If all people are morally equally, all individuals ought to have equal entitlements to the goods that are required for their wellbeing, the good in question in the context of climate change being the atmospheric ability to absorb GHGs. “Egalitarian principles,” writes Steve Vanderheiden “are individualistic: They maintain that no person is entitled to a larger share of a finite good than any other, for this would be to *ascribe greater value to the lives of those allowed to emit more GHGs than those required to emit fewer.*”⁸⁶ He adds, “No persons, merely by virtue of their national identity, geographic residence, prior use patterns, or command of wealth or power, deserve to be awarded a much larger share of the planet’s atmosphere than do any others.”⁸⁷

It would be difficult to overstate the importance of this conceptualization of the atmosphere as (1) a resource whose use is necessary in sustaining and improving human wellbeing, but (2) is limited, and (3) is held in common and must be allocated justly. This conceptualization, if accepted, performs the important function of establishing climate change as a problem of equity *on a global scale*. In some form, it thereby frames any proposed response designed to yield an arrangement allocating to parties only their respective fair amounts of GHG emissions with respect to atmospheric limits. In attempting to discover that fair amount, this conceptualization quickly highlights a major injustice in the world system: some parties are using more than their fair share of that resource.

⁸⁵ This approach was prominent in the community of climate ethicists I surveyed. One finds it in Peter Singer and Henry Shue (see below), for instance. Vanderheiden’s *Atmospheric Justice* (particularly chapters 2 and 3) is probably the best example of this approach in the works I consulted for this chapter, and it informs this section considerably.

⁸⁶ Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (New York: Oxford University Press, 2008), 225 [emphasis mine].

⁸⁷ *Ibid.*, 108.

1.2 The Right to Development

The world's emissions profile has not changed much since 1993 when Henry Shue wrote, "current emissions of CO₂ are very nearly as unequal as they could possibly be: a few rich countries with small populations are generating the vast bulk of the emissions, while the majority of humanity, living in poor countries with large populations, produces less altogether than the rich minority."⁸⁸

The problem is not simply that developed countries are violating egalitarian principles by proceeding as though they, as Vanderheiden noted, "ascribe greater value to the lives" of their populations by using more than their fair share. It is that in doing so, they are failing to observe another basic, universal principle of equity: Do no harm.⁸⁹ Where there is a common but limited good necessary for human wellbeing, any party taking more than its fair share of that good denies the right of others to its use by depleting its availability. Because it is a good necessary for wellbeing, depleting its availability does harm. To illustrate, in the context of climate change, that limited necessary good is the ability of the atmosphere to safely absorb carbon. If poor countries seek to pursue development in order to address endemic poverty and seek to do so through the use of readily available fossil fuel technologies, they will need to use a larger portion of that good. Yet to the extent that rich countries disproportionately deplete that good with their emissions, they would harm developing countries by denying them an avenue to reduce poverty and its associated ills.

Any overly simple global climate agreement in which all countries reduce emissions by the same proportion and thereby preserves the unequal contemporary emissions profile would therefore deny a vital right to the poor: *the right to development*. Rendering development into a right performs the function of introducing some constraints on the morally permissible allocation arrangements of

⁸⁸ Henry Shue, "Subsistence Emissions and Luxury Emissions," in *Climate Ethics: Essential Readings*, 207.

⁸⁹ See, e.g., Henry Shue, *Climate Justice: Vulnerability and Protection* (New York, NY: Oxford University Press, 2014), 112.

the atmospheric resource; responses to climate change should not deny the freedom of developing nations to take those actions required to improve human wellbeing. As Shue put it, “[T]hose living in desperate poverty ought not to be required to restrain their emissions, thereby remaining in poverty, in order that those living in luxury should not have to restrain theirs.”⁹⁰ The right to development therefore created a moral duty for rich nations to take the lead in reducing their emissions.

1.3 Moral Incommensurability of Emissions

If asserting a right to development protected the freedom of poor nations to increase GHG emissions, it would also be important to somehow guard against competing alternative approaches to the problem of climate change, ones that would threaten equity-based approaches and would dismiss concerns about unequal atmospheric use entirely.

Startled by signs of increasing concern in the north about curbing the rising emissions of the south, Agarwal and Narain coined an influential distinction between *survival* and *luxury* emissions in 1991.⁹¹ Though they did not define the terms, their examples make their meaning clear enough: *survival emissions* are caused through activities of the poor required for subsistence, like methane release from livestock or rice paddies; *luxury emissions*, meanwhile, are those resulting from the excesses of fossil fuelled wealth, like gas-guzzling automobiles. The distinction sounded a warning about the view some northern writers were taking, a view concerned with the physical impacts of GHGs regardless of origin or purpose. Any such view was missing something important; while a set of survival emissions and a set of luxury emissions might be *physically* identical in terms of their impact on the climate they are not *morally* commensurable.

Agarwal and Narain’s concept would enter into climate ethics most influentially through Henry Shue who adapted it to address a different, but equally

⁹⁰ Shue, “Subsistence Emissions and Luxury Emissions,” 202.

⁹¹ Anil Agarwal and Sunita Narain. *Global Warming in an Unequal World: A Case of Environmental Colonialism* (New Delhi: Centre for Science and Environment, 1991).

unjust approach to climate change, one prioritizing the most cost-effective solutions. “What if,” he writes, “the economic costs of abandoning rice paddies are less than the economic costs of increasing miles-per-gallon in luxury cars? Does it make no difference that some people need those rice paddies in order to feed their children, but no one needs a luxury car?”⁹² A survival-affecting response might be *more economically efficient* than a luxury-affecting one, but *not more just*. From this analysis, Shue would come to conclude that all people ought to hold an inalienable right to survival emissions. In the event that a per capital emissions trading scheme would be established in the future, Shue anticipated that this inalienable right could protect poor nations from falling under pressure to sell rights to survival emissions to the point where they would not have enough for their populations.⁹³

Agarwal and Narain’s and Shue’s survival emissions constraints perform several functions. Alongside the right to development, they defend the case for a justice-based approach to climate change against alternative frameworks, and further argue the case that it has to be countries of the developed north whose emissions must come down first. Survival emissions can also be used to determine the threshold after which climate duties can be assigned: there is a morally relevant distinction between *emitters*, whose emissions do in fact contribute to climate change, but are within allowances for subsistence rights and so do not trigger moral duties, and *polluters*, who emit more than their fair share and so must take on duties.⁹⁴ Lastly, they place an extra onus on developed countries to lower their emissions.

1.4 Contraction and Convergence. One of the more prominent proposed formulations for organizing duties in mitigating climate change in a just manner is called

⁹² Shue, “Subsistence Emissions and Luxury Emissions,” 211.

⁹³ *Ibid.*, 213.

⁹⁴ Göran Duus-Otterström and Sverker C. Jagers, “Identifying burdens of coping with climate change: A typology of the duties of climate justice,” *Global Environmental Change*, 22 (2012): 748-749, 752; Vanderheiden, *Atmospheric Justice*, 71, 243.

“contraction and convergence” (C&C) and it addresses many of the points raised in the preceding discussion. C&C recognizes egalitarian principles, allows the fullest use of the atmospheric commons, and protects the right to develop.

The ultimate aim of C&C is to give each individual the same per capita emission right, the same right to use the atmospheric commons, until cleaner technologies became available. *Contraction* refers to the requirement for those countries emitting more than their fair per capita share to reduce emissions over some transition period. This would allow poorer countries enough atmospheric space to emit more as part of their development. As the emissions of the rich fell and those of the poor rose, they would eventually *converge* on equal per capita emissions. C&C even lends itself to a clear policy: emissions trading. Countries can be assigned emissions credits according to population size at a baseline year. Developed countries with high emissions would buy excess credits from developing countries that could then use the income to finance their development. C&C thus offers one model of what a just real-world climate agreement could look like.⁹⁵

1.5 *The Wrath of the Global Storm*

Concerns for equitable use of the global atmospheric commons, the need to observe the right to development, and the importance of subsistence emissions make it clear that rich nations must take the first steps in the collective agreement to bring down

⁹⁵ It is worth repeating a point from a footnote from the introduction here in case it was missed. The development of C&C occurred before the carbon budget approach to understanding the climate crisis became popularized. For this reason, its concern was with determining a level at which near-term per capita greenhouse gas emissions would be *stabilized*. But, as discussed in chapter 3, the carbon budget approach shows that human emissions must not exceed a certain limit, one that will be reached very soon. Beyond that limit, if emissions do not reach zero (rather than become stabilized at some non-zero amount) it is not possible to prevent further climate change. Gignac and Matthews attempt to reconcile C&C with the need to cap total emissions while at the same time taking historical responsibility into consideration, which many previous C&C proposals fail to do. Should countries' *actual* per capita emissions exceed a hypothetical *equal* per capita emissions level, they accumulate a carbon debt that can be repaid in several ways. See Renaud Gignac and H Damon Matthews, “Allocating a 2°C cumulative budget to countries,” *Environmental Research Letters* 10 (2015) and H. Damon Matthews, “Quantifying historical carbon and climate debts among nations,” *Nature Climate Change* 6 (2016).

emissions that all rational actors would seek because they want to address climate change. And though it is possible to point to a model for a global climate agreement that can address these matters, the problem is that while it is *collectively* rational for nations to together curb fossil fuel use, it is *individually* rational for a single nation to increase its emissions to improve economic competition and growth—and entrenched economic and political interests favour the latter. The standard solution to such prisoner’s dilemma-type situations is to provide institutional arrangements that incentivize actors to accept collectively rational options over individually rational ones. There is nothing in the anarchic international system to change the incentive structure, however, by, for example, enforcing trade sanctions on individual nations that refuse to lower emissions. Given power relations in the global system, the upshot is that problems are externalized onto poorer actors who are not only least responsible and most vulnerable, but also hold the least power to bring the most responsible actors into a global agreement.

2) The Intergenerational Storm

The Intergenerational Storm describes the temporal features of the crisis. It originates in the dispersion of emissions and their impacts through time due to the lag in the planet’s physical response to GHGs. Climate change is seriously “backloaded,” as Gardiner puts it: the current impacts of climate change were caused by previous generations, and our actions today will have consequences for generations still to come, all of which creates some epistemological concerns around what duties can be held. Gardiner’s intergenerational storm draws thus our attention to both the past and the future and the problems arising as we attempt to factor in each.

2.1 Future Generations

Edward A. Page describes an “Intergenerational Responsibility Argument.” The argument consists of the following two premises and conclusion:

- P1: The changes in the climate system that are being brought about by human action threaten the well-being of members of future generations.
P2: Human action that threatens the well-being of members of future generations is unjust.
C: The changes in the climate system that are being brought about by human action are unjust.⁹⁶

The argument, or one very much like it, likely stands behind the convictions many people hold (myself included) that current generations need to act on climate change to prevent the severe harms it will cause to people in future generations; appeals to the responsibilities we hold for “our grandchildren” are a kind of shorthand for the argument.

Page observes that while the argument appears *valid*—the conclusion follows logically from the premises—it might not actually be *true*. P1 is defended easily enough; only the discredited arguments of climate change deniers doubt its truth. The threat is rather to P2 in the form of something called *the non-identity problem*, and it is a particularly tough philosophical problem.⁹⁷

Developed independently by several philosophers in the late twentieth century, non-identity might obliterate all at once a whole line of assumptions about what climate justice ought to mean. In at least one possible interpretation, the consequences of the non-identity problem are far-reaching, and fully ugly. According to that interpretation, descendants of slaves still experiencing poverty and disenfranchisement—the continuing legacies of a long history beginning with

⁹⁶ Edward A. Page, *Climate Change, Justice and Future Generations* (Edward Elgar Publishing, 2007), 161.

⁹⁷ For reasons of space, I do not go into how Page addresses doubts about whether duties of justice can obtain between actors with a non-reciprocal relationship, another threat he sees to P2.

slavery—would not be eligible to receive reparations. Neither would those living with the legacies of colonialism, to take another example.⁹⁸

Despite that possibility, I did not come across philosophers engaging with climate change who felt that non-identity invalidated concerns for future generations. Taking a cue from Henry Shue, who is actually dismissive of the problem,⁹⁹ I do not believe it has posed as much of a problem as its inclusion in Gardiner’s storm might suggest. Apart from it being raised by philosophers (who do not have much problem with non-identity in any case), I have not come across a single mention of this problem in the climate movement. More problematic for some potential principles of climate justice is the matter of past emissions, which I turn to now.

⁹⁸ The reasoning, with some simplification for concision, goes like this: people have been wronged if some event or set of events leaves them worse off than they might otherwise have been. That creates a problem because the people allegedly owed reparations in the present for the historical events of the past exist *because* of these historical events. Had slavery never occurred, for example, descendants of slaves in the Americas today would never have existed because there would never have been slaves in the Americas to be descended from. Therefore, there was no other world that these descendants could have lived in. And if this is the only world they could have lived in, they have not been wronged because of slavery in the past. For some discussion, see Page, *Climate Change, Justice and Future Generations*, 137, 157-8. In the same way, we may not have obligations of justice to future generations who suffer the consequences of the climate change we create. If we take the kind of drastic, rapid, and system-wide action needed to tackle climate change, it will have the kind of cumulative, chaotic, “butterfly-effect” changes that alter which people are born because it will affect when and by whom future people are conceived. As long as they consider their lives worth living, we would not be *harming* anyone in the future by hesitating to act on climate change. As we will see below, the non-identity problem might even affect duties the north holds for past emissions.

⁹⁹ As he writes (and only in a footnote) in a recent piece, “Many philosophers have been much taken with what is known as the non-identity problem...As far as I can see, our current lack of knowledge of particular identities in later centuries has no implications at all for what we ought to do now about future climate change. At most it has some implications for how we explain our more basic moral judgements.” Shue, *Climate Justice: Vulnerability and Protection*, 298. Both Shue and Vanderheiden see duties extending to future generations through the need to preserve rights to an environment capable of promoting human wellbeing. Shue, *ibid.*; Vanderheiden, 125-142.

Even Derek Parfit, the philosopher who gave the problem its name, is not himself convinced that non-identity means abandoning duties to future generations, but that it requires some care in searching for a theory assigning them. He wrote that those of us who feel intuitively that our social policies have bearing on the wellbeing of future people (writing in the early 1980s, his concern was around nuclear technology, not climate change) should be careful to “conceal” non-identity until it was resolved; otherwise, those in power considering adopting policies that would increase the possibility for catastrophes in the future might be more likely to implement them. See Parfit, *Reasons and Persons*, 451-452.

2.2 Historical Responsibility

It was countries of the global north that emitted the GHGs the effects of which are currently being felt by vulnerable communities in the south. Intuitively, it follows that developed countries ought to, in some way, be held responsible. This is a special form of what is commonly called the “polluter pays principle” (PPP). In one form, the PPP applies only to contemporary polluters (a carbon tax would be an example). But if applied diachronically, it requires that those who polluted in the past hold a duty today to either prevent the avoidable impacts of their historical pollution by financing adaptation projects and/or to provide compensation for unavoidable impacts. It is a form of backwards-looking or corrective justice.

There is a second way that past emissions can be morally relevant. One can read the history of unequal economic development into the north’s overuse of the common atmospheric resource. Another potential guiding principle for a just global climate agreement thus emerges: the “beneficiary pays principle” (BPP). People in the north have benefited from the economic activities that produced the emissions that led to the climate crisis today. They owe an “ecological” or “climate debt” for having used up so much of the atmospheric commons in unjustly generating their wealth that there is no longer enough left for the rest.

But *can* developed nations really be held responsible for all past (luxury) emissions? At the 2009 climate negotiations in Copenhagen, US negotiator Todd Stern denied that the US, historically the world’s largest emitter of greenhouse gases, holds any responsibility to pay reparations.

I actually completely reject the notion of a debt or reparations or anything of the like. Let’s just be mindful of the fact that for most of the 200 years since the industrial revolution people were blissfully ignorant of the fact that emissions cause the greenhouse effect. It’s a relatively recent phenomena. It’s the wrong way to look at this. We absolutely recognize our historic role in putting the emissions in the atmosphere up

there that are there now, but the sense of guilt or culpability or reparations—I categorically reject that.¹⁰⁰

One might be tempted to brush aside Stern’s views as those of a delegate cynically protecting the interests of the world’s largest historical emitter, but the argument that emissions of the distant past should not count finds support among some climate ethicists for several reasons.

The first is that, just as Stern says, it might be unfair to hold people morally responsible for actions they were unaware had negative consequences. Though he does not elaborate on it, Stern is drawing a distinction between “historic role” and “guilt” or “culpability” that he suggests holds moral importance. In this argument, having a *historic role* is merely a factual claim, datum that can at most be proven true or false, carrying no moral content. Obligation to others does not follow from the simple fact of past emissions. Something more must be established, in this case what one might call “willful emissions,” emissions made with knowledge beyond reasonable doubt that they negatively affect the climate. The distinction resembles the one made earlier between “emitters” and “polluters,” but, instead of holding between contemporaries, and instead of making *survival-luxury* the morally relevant dichotomy, it adds a diachronic element and makes *ignorance-knowledge* what counts.¹⁰¹

¹⁰⁰ Darren Samuelsohn, “No ‘Pass’ for Developing Countries in Next Climate Treaty, Says U.S. Envoy,” *New York Times*, December 9, 2009, <http://www.nytimes.com/gwire/2009/12/09/09greenwire-no-pass-for-developing-countries-in-next-clima-98557.html?pagewanted=all>.

Stern held firm to this position in 2013 at the climate talks in Warsaw as well, dismissing *Democracy Now* journalist Amy Goodman’s question on whether the US owes any sort of reparation: “this is a question that I’ve answered—I answered in Copenhagen, I think. We don’t regard climate action as a matter of compensation or reparations or anything of the kind. But thanks for the question.” See, “As Environmentalists Walk Out of UN Talks, Top US Envoy Says No to Reparations for Climate Damage,” *Democracy Now*, November 22, 2013, http://www.democracynow.org/2013/11/22/as_environmentalists_walk_out_of_un

¹⁰¹ Willfulness does certainly seem to make emissions more egregious. In 2015 it was revealed that ExxonMobil’s top scientists had been aware of the reality and potential dangers of climate change for decades. The proof that Exxon was aware of the consequence of their activities but proceeded to then fund climate change denier organizations to distort public knowledge about the crisis outraged the climate movement (the social media hashtag it rallied around was #ExxonKnew). As Bill McKibben put it (emphasis mine) “*knowingly*, they helped organise the most consequential lie

Secondly, there is the problem of the nature of the historical agent who is to be found morally at fault under the polluter pays principle. If the morally responsible agents are individuals of previous generations, then the problem is that many of them are now dead; the polluters *cannot* pay. If the morally responsible agent is a collectivity like a country, which does have a historical continuity between the distant past and present in a way that an individual cannot, then present day citizens of that country are being held responsible for decisions made by others in the past, decisions that present day citizens had no role in making (and no possibility to prevent), which seems unfair.¹⁰²

Perhaps one can turn to the *beneficiary pays principle* to help out with these matters. But then new complications arise. First, as Caney points out, turning to the beneficiary pays principle actually means abandoning polluter pays entirely.¹⁰³ Second, *have* people in the north really benefited from past emissions? If we understand “benefited” to mean “become better off than might otherwise be,” then the non-identity problem rears its head, suggesting that the individuals in the north

in human history, and kept that lie going past the point where we can protect the poles, prevent the acidification of the oceans, or slow sea level rise enough to save the most vulnerable regions and cultures...No corporation has ever done anything this big and this bad...this company had the singular capacity to change the course of world history for the better and instead it changed that course for the infinitely worse.” (Bill McKibben, “Exxon's climate lie: 'No corporation has ever done anything this big or bad',” *Guardian*, October 14, 2015, <http://www.theguardian.com/environment/2015/oct/14/exxons-climate-lie-change-global-warming>) To be sure, this example does not show that emissions without knowledge of their consequence ought to be excused, but it does show that willful emissions really do seem to carry moral weight in a way that the former do not.

Exxon is, at the time of writing, attempting to block a legal case against it founded on its role in knowingly misleading the public on climate change. See David Hasemyer, “Exxon Now Seeks to Block New York Attorney General's Climate Probe,” *Inside Climate News*, October 18, 2016, <https://insideclimatenews.org/news/17102016/exxonmobil-climate-change-research-seeks-block-new-york-attorney-general-investigation-subpeona-eric-schneiderman>; and David Hasemyer, “Exxon Widens Climate Battle, May Depose 17 State AGs Over Investigations,” *Inside Climate News*, November 10, 2016, <https://insideclimatenews.org/news/09112016/exxon-climate-change-investigation-research-scandal-state-attorneys-general>.

¹⁰² Simon Caney, “Cosmopolitan Justice, Responsibility, and Global Climate Change,” *Climate Ethics: Essential Readings*, 130.

¹⁰³ *Ibid.*, 128.

today did not in fact benefit because the world in which fossil fuels powered the growth in the north is the only world they could have existed in.¹⁰⁴

Even if populations in the developed north can be said to have benefited, Posner argues that they were not alone:

The technology of industrialization has spread far and wide, benefiting people all around the world. If we are responsible for the effects of our ancestors' behavior on future populations, we need to subtract the benefits from the costs. Very likely, unless climate change turns catastrophic, the benefits of steam engines, computers and vaccines will exceed the climate-related costs, meaning that rich countries will owe poor countries nothing at all.¹⁰⁵

Something else has occurred to make it difficult to hope rich countries will be the ones to pay: countries that are not economically well-off are becoming major sources of emissions; China has become the number one contributor to cumulative emissions since 1990.¹⁰⁶ That creates a serious problem: a country with a large amount of its population still living in poverty would owe more according to a polluter pays principle from 1990 than developed countries.

Posner and Weisbach sum up the problems of attempting to apply corrective justice to climate change like this,

It is tempting to think that rich countries should bear the principal economic burden of any climate change agreement, because they have been the major contributors in the past. But this claim encounters serious objections. As a matter of fact, developing nations will be close to the developed world, in cumulative emissions, in the relatively near future—perhaps as early as 2030. As a matter of principle, the corrective justice model is a poor fit with the climate change problem. Many of the past contributors are dead. Many of them lacked the requisite state of mind. In addition, those who have

¹⁰⁴ Ibid., 128.

¹⁰⁵ Eric Posner, "When it comes to climate change, payback isn't enough," *Washington Post*, January 8, 2016, <https://www.washingtonpost.com/news/in-theory/wp/2016/01/08/when-it-comes-to-climate-change-payback-isnt-enough/>

¹⁰⁶ Natasha Geiling, "The U.S. Will Soon No Longer Be The Leading Cause Of Modern Global Warming," *Think Progress*, April 13, 2015, <http://thinkprogress.org/climate/2015/04/13/3646202/china-climate-change-largest-contributor/>

inflicted risks of harm have also conferred significant benefits on other nations, and the benefits should be included in any accounting.¹⁰⁷

Are there counter-arguments to these objections? If not, the objections risk sinking some strong motivators for climate action. Part of what pushed me to study climate change from the perspective of justice and to join the climate justice movement was having been struck by the discomfiting intuition that I belong to a country (Canada) that is neglecting moral duties arising from the harms of our actions to the wellbeing of future generations due to our historical emissions. The preceding arguments stemming from the epistemological problems of the intergenerational storm would suggest that my intuition—and the intuition of a lot of people in the climate movement—is flawed. Even aside from undermining motivating claims, the matter is especially important to figure out. The polluter- and beneficiary-pays principles potentially offered to do some “heavy lifting,” *obligating* the richest and most powerful nations to direct their wealth towards addressing climate change as duties of justice tied to the harms rich countries’ actions have caused.

It does seem difficult to salvage the initial intuitive attempt to assign duties for them under polluter- or beneficiary pays principles. Gardiner offers a defense, but not a particularly rigorous one. He insists that we should not excuse individuals who are part of nations with high emissions in the past from holding historical responsibility for them, asking simply “if we are not responsible for at least some of the debts incurred by our ancestors, why are we entitled to inherit all of the benefits of their activities?” For him, “the burden of proof remains on those who would reject all historical accountability.”¹⁰⁸ This of course would not satisfy those who would insist that we do not really benefit from past activities that created the conditions for our existence.

Some have settled for applying the PPP only on emissions from the year 1990, when the Intergovernmental Panel on Climate Change issued its first assessment

¹⁰⁷ Eric A. Posner and David Weisbach, *Climate Change Justice* (New Jersey: Princeton University Press, 2010), 190-191.

¹⁰⁸ Gardiner, *A Perfect Moral Storm*, 402 & 418.

report showing that human activity was having an impact on the climate, as the point from which countries could no longer claim ignorance and so could be held liable for their excess emissions.¹⁰⁹ Others have turned to a different principle to impose duties on the wealthy: the ability to pay. Those who are well off and can help without endangering their own wellbeing have a duty.¹¹⁰ For the most part, though, *ability to pay* has meant leaving behind a search for principles that assign duties derived from responsibility for injustices of a more distant past.¹¹¹

2.3 Greenhouse Development Rights

The intergenerational storm calls for a schema for assigning duties that can, in addition to problems raised in the global storm, address temporal matters of justice like historical emissions. Baer et al.'s *Greenhouse Development Rights* (GDR) framework offers an example of one such schema. It assigns duties for emissions reductions and for adaptation aid based on two key principles: *capacity* and *responsibility*. Capacity refers to “the ability to pay for climate policies without

¹⁰⁹ Vanderheiden, for example, writes, “The most defensible starting point for assessing moral responsibility for historical emissions is the year 1990, with the publication of the IPCC’s first assessment report. By then, most national governments were fully aware of the likely effects of various kinds of human activity on global climate and could have initiated emission abatement programs...Continued luxury emissions after 1990, allowed under full knowledge of their consequences for global climate and despite pledges to reduce them, ought to affect the assignment of compensatory burdens.” Vanderheiden, *Atmospheric Justice*, 191.

¹¹⁰ Caney’s attempt is perhaps the most ambitious. He designs his ability-to-pay principle to take into account historical emissions without turning to the more controversial diachronic PPP.¹¹⁰ Burdens fall on the wealthy in proportion to their wealth because “(a) they can bear the burden most easily and also (b) the wealth that they hold came about in climate-endangering or other unjust ways.” As such, its design also avoids triggering the non-identity problem; the wealthy do not *benefit* from climate-endangering actions of the past, but their “current holdings [...] are almost certainly built on a history that includes very high emissions.” Simon Caney, “Human Rights, Responsibilities, and Climate Change” in *Global Basic Rights* (New York, NY: Oxford University Press, 2009), 244.

¹¹¹ For example, Moellendorf turns to ability-to-pay, but does not attempt to incorporate historical emissions into it as Caney does (see previous footnote). To Moellendorf, the overriding purpose of the international framework is to regulate energy use to promote mitigation while also permitting human development, and the most effective approach to do so is to set principles of justice around that purpose. The *central* problem the international regime attempts to solve is not, in other words, to penalize people for having accumulated wealth in an unjust manner; therefore polluter- or beneficiary-pays principles are inappropriate, and can safely be left behind. The ability-to-pay principle, he believes, suffices. Darrel Moellendorf, *The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy* (New York: Cambridge University Press, 2014), 178.

sacrificing consumption of greater moral priority.”¹¹² Baer et al. establish a per capita “development threshold” (\$7,500 purchasing power parity adjusted), and countries’ duties are weighted according to size of population with wealth above that threshold. *Responsibility*, meanwhile, weights duties according to a country’s emissions (in keeping with the preceding discussion, Baer et al. make 1990 the date after which countries are responsible for their emissions) but excludes a proportion of emissions based on population below the development threshold.¹¹³

Baer et al. believe that the resulting “responsibility and capability index” offers two means of establishing duties. One is to establish countries’ respective financial contributions to “a single grand international fund to support both mitigation and adaptation.” The second is to define emissions mitigation obligations.¹¹⁴ Like C&C, GDR is careful to respect development rights, while also being much more sensitive to historical emissions.

2.4 The Wrath of the Intergenerational Storm

Gardiner tells us that the great danger of the intergenerational storm is in how present generations benefit from their emissions, but are spared their consequences. The destructive effects of climate change are externalized onto future generations who have no ability to influence events in the past, creating a “tyranny of the present.” Even if duties to future generations are recognized, the fact that the worst climate impacts will occur in the future reduces incentives for existing institutions and decision makers to take concerted action today. I would add to Gardiner’s arguments that the inability to turn to the polluter pays principle to historical emissions to do some heavy lifting might even make it more difficult to

¹¹² Baer et al., “Greenhouse Development Rights,” 222

¹¹³ As they put it, “As many have argued, the fact that knowledge of the risks from GHG pollution was not widespread before around 1990, the year of the first report of the IPCC, means that the conditions for moral responsibility do not easily apply before then.” Baer et al., “Greenhouse Development Rights,” 224.

Not pertinent, but of some interest, Caney protects the right to development with his *contribution* principle, but Baer et al. protect it with their *capacity* principle.

¹¹⁴ Baer et al., “Greenhouse Development Rights,” 224.

secure the levels of financing from rich countries that need to be directed towards serious climate action right now.

3) The Theoretical Storm

This final storm results from how existing moral theories are “inept” or “unsuited” to sufficiently guide our actions in the realms of intergenerational ethics (including non-identity), international justice, scientific uncertainty, and non-human life. The latter appears to have been particularly difficult to wrestle with; in the works consulted for this chapter, few philosophers engaged at length with an attempt to theorize non-instrumental climate responsibilities relating to non-human life.

Climate ethicists have been deeply concerned with one manifestation of the theoretical storm in particular: cost-benefit analysis (CBA) approaches to climate change. Put simply, CBA insists that actions should only be pursued where the costs of implementation are less costly than the benefits they bring. It becomes complicated, however, when it is applied over longer spans of time and incorporates what is called *discounting*. Discounting attempts to account for economic growth over time and raises the possibility that current generations should not make sacrifice economic growth to deal with climate change because that would make future generations less economically well off than they might otherwise have been.

Despite the attention to the problem given by climate ethicists, the seriousness of the problem CBA posed may now have been undercut.¹¹⁵ CBA rests on an assumption that climate change will not be severe if the world continues

¹¹⁵ To give a sense of how much climate ethicists have been concerned with this issue, note (some of) the full chapters devoted to this issue in the following ethicists’ books: Eric A. Posner and David Weisbach, “Future Generations” in *Climate Change Justice* (New Jersey: Princeton University Press, 2010), 144-168; Stephen M. Gardiner “Cost-Benefit Paralysis” in *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (New York: Oxford University Press, 2011), 247-298; Donald A. Brown, “Ethical Problems with Cost Arguments” in *Climate Change Ethics: Navigating the Perfect Moral Storm* (Earthscan, 2013), 57-90; Dale Jamieson, “The Limits of Economics” in *Reason in a Dark Time: Why the Struggle Against Climate Change Failed—and What it Means for our Future* (New York: Oxford University Press, 2014), 105-143; Darrel Moellendorf, “Discounting the Future and the Morality in Climate Change Economics” in *The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy* (New York: Cambridge University Press, 2014), 90-121.

emissions on business-as-usual trajectories or that it will be easy to adapt to, but neither claim finds much support in the latest scientific literature.¹¹⁶

CBA is important in a different respect: it serves as a reminder that ethical theories have not been the ones most readily turned to when looking at climate duties. That might be due to climate change being very unlike other ethical problems. Jamieson observes that, if we compare the average American's CO₂ emissions with estimates of what emissions should be allowed,

then virtually all Americans are human rights violators, as are most of those in the rest of the world who live middle-class (and beyond) lifestyles. Yet not only do most of these people not feel like human rights violators, many of them do not think that they have choices that would allow them to emit less [...] This does not sound like a view that is embedded in commonsense morality.¹¹⁷

What this suggests is that in our individual contributions to climate change we never quite *feel* like we are committing an injustice. Driving a car or using electricity from coal-powered plants, at least in the way the ethics of it is processed mentally, is different from directly assaulting or stealing from someone for instance. Gardiner is rightly concerned about a lack of suitable ethical theories, but the problem that Jamieson raises suggests that even if those theories were at hand, the way many people think about climate change has been such that they may not experience the required sense of moral culpability to be sufficiently moved by it to seek out those theories.

The Wrath of the Theoretical Storm

The theoretical storm thus risks further contributing to the externalization of consequences onto future people, already victimized under the second storm, but it

¹¹⁶ The work of CBA's most high-profile proponent Bjørn Lomborg has been thoroughly discredited for downplaying the current and future costs of climate change and exaggerating the costs of taking action. What we might think of as a sub-sub-genre of climate literature is dedicated to exposing Lomborg, but one may begin with the website exhaustively detailing his errors (Kåre Fog, "Lomborg Errors," <http://www.lomborg-errors.dk/>) or to Howard Friel's *The Lomborg Deception: Setting the Record Straight About Global Warming* (Yale University Press, 2011).

¹¹⁷ Jamieson, *Reason in a Dark Time*, 156.

also means that some problems are externalized onto other species as well. To this storm we can add what we might call the problem of moral perception, a difficulty in perceiving a need for ethical theories.

2. The UNFCCC and “The Wreckage of the Old Story”

The discussion in part 1 of this chapter highlighted the many challenges that any real-world attempt to realize climate ethics would need to address. Important elements of what a global climate agreement must contain according to a vision of climate justice as climate ethics can be identified.

- The imposition of mitigation, adaptation, and possibly disaster response (whether in the form of recovery aid or reparations) duties must be justified through appeals to well-founded principles.
- Application of these principles must not endanger either subsistence rights or the right to development.
- The most well-founded principles are (a) contribution to cumulative emissions from about 1990 and (b) ability-to-pay. (Though possessing some intuitive appeal, a diachronic polluter-pays principle and a beneficiary-pays principle are highly controversial.)
- The selection of these principles and the caveats on their application imply that richest nations ought to take on the largest part of climate duties.
- Any global arrangement must have the capacity to actually address climate change. If it does not, it would fail to protect the wellbeing of people now and in the future.
- Because thoroughly vetted ethical principles guide the assignment of duties and because those duties must address climate change, it is legitimate to enforce them (i.e., make them legally binding).¹¹⁸

To what degree are matters like these reflected in the real-world global response to climate change? To answer that, it is necessary to look at the United Nations

¹¹⁸ Vanderheiden, *Atmospheric Justice*, 60.

Framework Convention on Climate Change (UNFCCC). Framework conventions like the UNFCCC are broad treaties; parties agree to general goals and guiding principles, but use subsequent agreements to fine-tune the policies that will achieve their objectives. The influence structure is top-down: decisions made at global-level climate talks are intended to coordinate national-level policies.

The wording in the founding UNFCCC document does indeed give space for considerations of justice. Consider Article 3.1, the UNFCCC's oft-quoted first principle:

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

The challenge has been in defining the policies that realize those considerations of justice. The Kyoto Protocol—signed in 1997 and ratified in 2005—was the first major attempt. The expectation was that rich industrialized countries would be the first to adopt a legally binding agreement on emissions reductions. The reasoning behind it was straightforward: developed countries had a long and exclusive history of economic growth powered by fossil fuels and were thus most responsible for, and most capable of responding to, climate change.

Kyoto's first commitment period (2008-2012) was to serve as a kind of practice round, a field-test of principles, requiring developed countries and industrial ex-Soviet countries—together known as Annex I countries—to reduce emissions by an average of 5% relative to 1990 levels. And while a 5% reduction was never enough to solve the climate crisis, achieving it would have entailed rich countries experimenting with policy design and renewable technologies, and being in a position to pass the best of those to developing countries. They might even have formed the basis of a more ambitious post-Kyoto agreement.

Kyoto contained at least some elements that would belong to an equitable agreement. Centrally, duties fell on those countries with the greatest ability to act.

Also, emissions reductions among the rich nations were not optional, but legally binding.

But Kyoto failed. Though legally binding, it had few real enforcement mechanisms and contained design flaws. For one, the Kyoto commitments of the ex-Communist countries could be met simply by the transition to capitalism, which would entail a move away from energy-inefficient industrial production. Developed countries, particularly those with governments captured by fossil fuel industries as in the US under George W. Bush and Canada under Stephen Harper's Conservatives, used those flaws to claim Kyoto would unfairly burden their economies.¹¹⁹ Even before the end of Kyoto's first commitment period (2008-2012), it was apparent that the unwillingness of major developed country parties to take serious action on climate change was straining the possibility for Kyoto-type models in the future.

Jamieson argues that between 1992 when the UNFCCC was founded at the Rio Earth Summit and COP15 in 2009, the dominant narrative could be called the "Rio dream," one where "states, motivated at least in part by a sense of justice, would make binding commitments to limit emissions and transfer resources in an effort to protect the global environment and bring the benefits of modernity to less developed countries."¹²⁰ That dream, he tells us, ended in 2009 at COP15 in Copenhagen. We currently live in the "wreckage of the old story."¹²¹ And that wreckage is severe.

Rather than fix the flaws of Kyoto but retain its essential form, climate negotiations underwent a mutation starting at COP15. Under the new approach, the Kyoto model was steadily abandoned. Out went legally binding emissions targets on countries most responsible for and most able to respond to climate change; in came a system where all countries, developing countries included, were invited to

¹¹⁹ For some good reviews by climate ethicists, see Vanderheiden, *Atmospheric Justice*, chapter 1; and Jamieson, *Reason in a Dark Time*, chapter 2. See also, Quirin Schiermeier, "The Kyoto Protocol: Hot air," *Nature* 491 vol. 7426 (2012).

¹²⁰ Jamieson, *Reason in a Dark Time*, 227.

¹²¹ *Ibid.*, 237.

voluntarily submit emissions reductions pledges, or *Intended Nationally Determined Contributions* (INDCs). A similar voluntary approach characterizes the provision of climate financing for developing countries for mitigation and adaptation, where, by 2020, \$100bn per year is to be “mobilized” by developed countries from “a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.”¹²²

The 6-year mutation culminated at COP21 in the 2015 Paris Agreement. As part of the lead-up process, countries submitted their voluntary INDCs. If not improved upon, these pledges led to a terrifying temperature rise of 3.5°C by 2100.¹²³ The agreement’s inability to coordinate emissions reductions in line with what climate science shows will be necessary to prevent dangerous climate change earned it some bitter criticism from James Hansen, one of the world’s leading climatologists, who called it “a precatory agreement, wishful thinking that mainly reaffirms, 23 years later, the 1992 Rio Framework Convention on Climate Change.”¹²⁴ “There’s a misconception that we’ve begun to address the climate problem,” he noted in an October 2016 press call. “The misapprehension is based on the Paris climate summit where all the government leaders clapped each other on

¹²² UNFCCC, “Copenhagen Accord,” 7.

¹²³ Joseph Romm, “Misleading U.N. Report Confuses Media On Paris Climate Talks,” *Think Progress*, November 3, 2015, <http://thinkprogress.org/climate/2015/11/03/3718146/misleading-un-report-confuses-media-paris-climate-talks/>.

Different potential temperature rises were reported in the media, the most widely quoted being 2.7°C. For some accessible discussion on the disparity between the 2.7°C and 3.5°C figures, see Kelly Levin and Taryn Fransen, “INSIDER: Why Are INDC Studies Reaching Different Temperature Estimates?” *World Resources Institute*, November 9, 2015, <http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates>; and “Comparison between Climate Action Tracker and Climate Interactive assessments,” *Climate Action Tracker*, October 19, 2015, <http://climateactiontracker.org/global/227/Comparison-between-Climate-Action-Tracker-and-Climate-Interactive-assessments.html>

¹²⁴ James Hansen, “Young People’s Burden,” *Earth Institute, Columbia University*, October 4, 2016, <http://csas.ei.columbia.edu/2016/10/04/young-peoples-burden/>

the back as if some great progress has been made, but you look at the science and it doesn't compute. We are not doing what is needed."¹²⁵

And the shortcomings of the mutated climate regime extend beyond emissions reductions targets. A large part of the climate financing developed countries have claimed counts towards the \$100bn mobilization of climate financing is not directly related to climate change and comes through market-rate loans.¹²⁶ According to the Copenhagen Accord, a "significant portion" of that \$100bn was to flow through the Green Climate Fund. Pledges towards the Fund had reached a mere \$10bn in 2016.¹²⁷

Even though any of them would always be contentious, there were forms that global arrangements ought to have taken on if they were going to address climate change in a just fashion, C&C and GDR providing two potential examples. But this new global mitigation regime looks nothing like what they described. *Voluntary pledges* of emission targets and contributions to climate funding for developing countries fall far short of *duties* imposed and enforced following careful selection of principles. Perhaps, a supporter of the new regime might suggest, the pledges reflect an ability-to-pay principle. But the INDCs are more representative of governments' projections of emissions reductions that can be made without harming *economic growth* than without harming *wellbeing*. And rich-country contributions towards climate financing, particularly through the Green Climate Fund, are much lower than what they are *able* to pay.¹²⁸ Given its inability to produce a climate agreement

¹²⁵ Natasha Geilling, "Climate scientist James Hansen: We aren't doing nearly enough to slow climate change," *Think Progress*, October 4, 2016, <https://thinkprogress.org/hansen-paper-warming-courts-7c0bf59de6f7#.w613433tx>

¹²⁶ John Upton, "The \$100 Billion Climate Question," *Climate Central*, November 23, 2015, <http://www.climatecentral.org/news/the-100-billion-climate-question-19726>

¹²⁷ Green Climate Fund, "Status of Pledges and Contributions made to the Green Climate Fund," May 27, 2016, http://www.greenclimate.fund/documents/20182/24868/Status_of_Pledges_2016.1.15_.pdf/278bca2f-9672-4cef-a917-a637dbb46591

¹²⁸ In 2015, Canada's then-incoming Liberal government *pledged* to contribute \$2.65 billion over 2016-2020. (Rosemary Barton, "Government announces \$2.65B to help developing countries fight climate change," *CBC News*, November 27, 2015, <http://www.cbc.ca/news/politics/funding-for-climate-change-chogm-1.3339907>) The Canadian government's contribution will be just \$800 million in 2020, when the \$100 billion per year is supposed to be mobilized. To put that in

capable of keeping temperature rise below safe levels, the climate regime also fails to protect future generations in any clear way; the further globally averaged temperature rises above 1.5°C, the more dangerous the world grows for people in the future as they will face a confluence of rising sea levels, extreme storms, persistent droughts and other effects of climate change.

Jamieson described the regime as “a portfolio of policies without a single effective portfolio manager.”¹²⁹ He writes,

For the foreseeable future, climate policy will largely reflect the motley collection of policies and practices adopted by particular countries, rather than reflecting the outcome of a global deal based in a shared conception of justice. There will be climate-relevant policy virtually everywhere, but it will be different in different countries and it will be pursued under different descriptions and with different objectives. Some countries will adopt emissions trading, others carbon taxes, and others technology-forcing policies. Some countries will alter their energy mix, others their transportation systems, and others will focus on buildings. Some countries will do a lot and others will do a little...These policies...will reflect a mix of self-interest and ethical ideals constructed in different ways in different countries.¹³⁰

Which world we live in will largely be a function of the policies and practices adopted by particular countries. What countries do (and fail to do) will reflect their internal politics, values, fears, ambitions, hopes, and national priorities. What happens may actually be quite volatile.¹³¹

There are unsettling indications that the UNFCCC’s primary and immediate concern going into COP21 was not even preventing severe climate warming, let alone doing so in a just way. In advance of COP21, UNFCCC Executive Secretary Christiana Figueres, EU climate chief Miguel Arias Canete, and US lead climate negotiator Todd Stern alongside other high-level commentators all downplayed the summit’s potential to achieve an agreement that would by itself keep climate

perspective, Canada gave \$4.2 billion—a mere 0.24% of gross national income—in development aid in 2014. (See, OECD, “Development aid stable in 2014 but flows to poorest countries still falling,” *OECD*, 2015, <http://www.oecd.org/dac/stats/development-aid-stable-in-2014-but-flows-to-poorest-countries-still-falling.htm>) It is therefore difficult to see how the *promised* \$800 million (it remains to be seen if it will even be *delivered*) reflects Canada’s ability to pay.

¹²⁹ Jamieson, *Reason in a Dark Time*, 228.

¹³⁰ *Ibid.*, 9.

¹³¹ *Ibid.*, 227.

warming below 2°C. All the while, they were careful to point out that such a result would not constitute a failure.¹³² Aligning with them, Joseph Romm of the important climate blog *Climate Progress* (since folded into the *Think Progress* site) summarizes the logic well:

You can't judge...any country's commitment on whether it is sufficient to keep the world below 2°C — because none of them are...that's because 2°C will require deeper and deeper commitments for 2040 and 2050 and beyond until total global emissions hit zero and then beyond that until they go negative. No major country is prepared to take on such long-term obligations, especially given the last quarter-century of relative inaction by so many major countries [...]

Again, Paris is focused on stanching the bleeding with a tourniquet. The goal has always been to get firm global commitments from the big emitters to meet serious targets in the 2025-2030 timeframe so we can get off our current emissions pathway — a pathway that would blow past 4°C (7°F) warming, ruin a livable climate for centuries and make feeding 9 billion people post-2050 an unimaginably difficult task.¹³³

The UNFCCC's standard for success at COP21 seemed to have changed, then, to one of *preserving its credibility* by having parties remain part of any ongoing process of negotiations that holds some promise of getting away from the current emissions trajectory.¹³⁴ By that standard, the UNFCCC would succeed in Paris as long as talks ended in even a weak agreement, and with little concern for justice. An optimistic Environmental Defense Fund climate strategist offered a perceptive explanation for

¹³² For Canete's views, see Suzann Goldenberg, "Paris climate summit: missing global warming target 'would not be failure'," *Guardian*, February 4, 2015, <http://www.theguardian.com/environment/2015/feb/04/paris-climate-summit-missing-global-warming-target-would-not-be-failure>; Stern's statements can be found in Fiona Harvey, "World should not rush to judge Paris climate deal, says top US negotiator" *Guardian*, February 27, 2015, <http://www.theguardian.com/environment/2015/feb/27/world-should-not-rush-to-judge-paris-climate-deal-says-top-us-negotiator>; see also Joseph Romm, "Of Course Paris Climate Talks Won't Keep Warming Below The Dangerous 2°C Limit," *Climate Progress*, February 5, 2015, <http://thinkprogress.org/climate/2015/02/05/3619717/paris-climate-talks-2c/>

¹³³ Joseph Romm, "How Obama's New Clean Power Plan Might Be Just Enough To Stave Off A Climate Catastrophe," *Climate Progress*, August 3, 2015, <http://thinkprogress.org/climate/2015/08/03/3686977/moral-urgency-epa-clean-power-plan/>

¹³⁴ This was the view of the outgoing EU climate chief, for example. See, Fiona Harvey, "Connie Hedegaard: credibility of UN climate process hangs on Paris talks," *Guardian*, December 28, 2014, <http://www.theguardian.com/environment/2014/dec/28/connie-hedegaard-credibility-un-climate-process-2015-paris-talks>

the shift in parameters of success [emphasis mine]: “The idea is that the Paris agreement will put us not on an emissions trajectory for 2 degrees, but on an *institutional trajectory* that allows us to try to meet that goal.”¹³⁵ A writer for *The Atlantic* observed the Paris Agreement “is meant to work more as an economic signal than as a binding statute” and quoted then-US Secretary of State John Kerry as saying it sends “a critical message to the global marketplace” to invest in a green economy.¹³⁶

What will ostensibly correct the course of the new climate regime is something referred to unofficially as a “ratchet mechanism.”¹³⁷ Every five years, countries are to submit a new INDC with a more ambitious target than the previous submission, a process sometimes called “pledge and review.” The aforementioned climate strategist tells us that instead of binding agreements, the Paris Agreement “will rely instead on peer pressure, national accountability, and global cooperation to voluntarily try to slow the climate-changing impacts of all nations, be they developed, dirt poor or somewhere in between.”¹³⁸ Speaking in 2013, Todd Stern characterized the emerging climate regime as one where “norms are the crucial motivator – norms built up among countries, international organizations and financial institutions, civil society, the press.” Countries will seek to meet norms and expectations in order “to enhance their global standing and reputation.”¹³⁹

¹³⁵ John Upton, “Paris Talks Won’t Achieve 2°C Goal: Does That Matter?,” *Climate Central*, February 10, 2015, <http://www.climatecentral.org/news/paris-talks-wont-achieve-2-degree-goal-does-that-matter-18648>; see also Joseph Romm, “How Obama’s New Clean Power Plan Might Be Just Enough To Stave Off A Climate Catastrophe.”

¹³⁶ Robinson Meyer, “A Reader’s Guide to the Paris Agreement,” *Atlantic*, December 16, 2015, <http://www.theatlantic.com/science/archive/2015/12/a-readers-guide-to-the-paris-agreement/420345/>

¹³⁷ Sophie Yeo, “Explainer: the ‘ratchet mechanism’ within the Paris climate deal,” *Carbon Brief*, December 3, 2015, <http://www.carbonbrief.org/explainer-the-ratchet-mechanism-within-the-paris-climate-deal>

¹³⁸ John Upton, “Paris Talks Won’t Achieve 2°C Goal: Does That Matter?,” *Climate Central*, February 10, 2015, <http://www.climatecentral.org/news/paris-talks-wont-achieve-2-degree-goal-does-that-matter-18648>

¹³⁹ Todd Stern, “The Shape of a New International Climate Agreement,” Oct 22, 2013 <http://www.state.gov/e/oes/rls/remarks/2013/215720.htm>. Other appeals in this vein strain credulity even further. As two Canadian climate scientists put it, “*Countries of the world have officially*

But to the degree that, this late in the game, the UNFCCC's current concern is still with its "institutional trajectory" to be corrected through "peer pressure, national accountability, and global cooperation" relying on countries seeking "to enhance their global standing and reputation" (the same non-binding approach incapable of preventing the 2003 US invasion and occupation of Iraq and larger "War on Terror," of raising development aid from rich countries to 0.7% of their GDP, of meeting the Millennium Development Goals—and one could continue), the process lags frighteningly behind the times.

Dale Jamieson's book *Reason in a Dark Time: Why the Struggle Against Climate Change Failed—and What It Means for Our Future* is a kind of post-mortem searching for the cause of the inability to realize that Rio dream. It joins Gardiner's work, with its warnings about the difficulty of finding ethical solutions to climate change due to the perfect moral storm, in signifying a pessimism among at least some philosophers about the degree to which ethics can shape the global agreements guiding the world's climate response.

To be sure, climate change is without doubt a problem of ethics. But many of the ethical prescriptions could only ever function with states that (1) actually prioritize ending the crisis and (2) are concerned with fairly distributing and abiding by their duties. As I discuss over the next several chapters, the entities that have come to occupy the negotiation space the UNFCCC carved out do not have these characteristics. The current state of the global mitigation regime more closely resembles what one should expect from states seeking above all to preserve economic growth than it does states waiting for a fair agreement in order to institute strong climate policy.

embarked in a global race to implement ambitious climate policies that contribute to reducing greenhouse gas emissions at the planetary-scale. This process is not unlike the Olympics games where countries get together to compare their strengths and performance" [emphases mine]. James Byrne and Catherine Potvin, "Scientists rate Canadian climate policies," *Guardian*, November 28, 2016, <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2016/nov/28/scientists-rate-canadian-climate-policies>

Let us note that none of this should suggest that the fights for justice on this first front are over. While the COP15-COP21 mutation means the struggle to establish a fair, global, and legally binding emissions reduction agreement is (at least for now) lost, there is still much of importance to be decided at the global level that ethics can contribute to. The failure of the UNFCCC to secure an agreement capable of preventing dangerous climate change means that adaptation and “loss and damage” (i.e., fund transfers for communities following disastrous climate events) will only grow in importance. There are therefore arrangements for addressing them that will need to be put forward in a way that is simultaneously just and can enter into a difficult international negotiation context where compensatory forms of justice that assign blame will be resisted. The turn to risk-sharing arrangements modeled on worker compensation arrangements provides a promising alternative.¹⁴⁰

But to return to the earlier point, philosophy has no inherent means of realization. Whatever the soundness of a set of arguments, those arguments will have to be realized in the real institutions of some living society by some active agents. So there are some questions unanswered by climate-justice-as-climate-ethics when there is a mismatch between the UNFCCC design on the one hand and the states that actually participate in it on the other. What happens when states neither prioritize ending the crisis nor concern themselves with distributing burdens fairly? Who could ever turn these states—particularly those in the north—into ones that would match the UNFCCC design? What do we do if our existing political and economic systems are structurally unlikely to or even incapable of ever addressing the issue (a real possibility as discussed in later

¹⁴⁰ My thanks to Dr. Idil Boran for directing me to her piece showing how risk-sharing approaches can be applied to loss and damage. See Idil Boran, “Risk-Sharing: A Normative Framework for International Climate Negotiations,” *Philosophy and Public Policy Quarterly* 32 No. 2 (2014). Peter Penz has shown how risk-sharing can also be applied to climate-related displacement. See Peter Penz, “International Ethical Responsibilities to ‘Climate Change Refugees’,” in *Climate Change and Displacement: Multidisciplinary Perspectives*, ed. Jane McAdam (Hart Publishing, 2010).

chapters)? What kind of socioeconomic system would ever realize the kinds of principles that emerge from this kind of inquiry?

To be sure, matters of this sort have not escaped climate ethicists. Shue noted very early on that the rich would have to consume less to meet their climate goals as long as economies are based on fossil fuels, but that the reduction in consumption might not affect wellbeing (anticipating the problem of economic growth taken up in my final chapter):

Much of what sustains a consumerist economy not only clogs our landfills but dulls our senses, clutters our minds, erodes our health, and fritters away our time and natural resources. We could clearly live much richer lives if we could be free from many of the gadgets, widgets, and other expensive junk that we sell to each other and then quickly discard. All that can be said for much of the stuff that expands the gross national product (GNP) is that making it, advertising it, distributing it, and discarding it all create jobs...the rich need to create different kinds of jobs that, besides providing people with income, add to the quality of life.¹⁴¹

Looking at the possibility that existing institutions will not take on climate change, Gardiner comes to what he believes might be a “startling” conclusion that points in the direction of the next chapter on the climate movement:

Suppose it is true that humanity currently lacks the appropriate institutions to deal with global environmental change. What follows? If political institutions normally operate under delegated authority from the citizens, the answer seems clear. This is a case where the delegation has either not happened, or else has failed to be successful...If the attempt to delegate effectively has failed, then the responsibility falls back on citizens again—either to solve the problems themselves, or else, if this is not possible, to create new institutions to do the job.¹⁴²

Jamieson, meanwhile, suggests that, following the “wreckage of the old dream,” a “narrative may come along in the future that will move people and organize our thoughts and feelings about climate change in a way that will be

¹⁴¹ Henry Shue, *Climate Justice: Vulnerability and Protection*, 72. This citation is from his piece “After you: may action by the rich be contingent upon action by the poor?” written in 1994.

¹⁴² Gardiner, *A Perfect Moral Storm*, 433

effective.”¹⁴³ He sees hope in non-linear change in social systems (citing the unexpected collapse of Soviet Communism) that come from a variety of actions (he gives fossil fuel divestment as an example).¹⁴⁴

Climate ethicists have thus noted important matters that extend beyond the boundaries of climate-justice-as-climate ethics, but do not take them up. For that reason, I move in the next chapter onto the next front of climate justice—the justice of the climate movement—to see its contributions.

¹⁴³ Jamieson, *Reason in a Dark Time*, 237.

¹⁴⁴ “Dale Jamieson & Peter Singer in Conversation: Reason in a Dark Time,” Vimeo video, uploaded by Princeton Community Television on March 18, 2015, <https://vimeo.com/122572018>

III. Climate Justice and the Climate Movement

1. *The Two Streams of the Movement*

“What do we want? *Climate Justice!* When do we want it? *Now!*”

I’ve joined in that particular call-and-response in several climate marches now: through downtown New York in September 2014 as part of the People’s Climate March, through the University of Toronto campus three months later (and again one year after that) in support of the student fossil fuel divestment movement, and again through downtown Toronto in July 2015 as part of the March for Jobs, Justice and the Climate.

On those occasions, I’ve wondered just what it was we all had in mind when we called for “climate justice.” At no point did we decide how we were using the term. In fact, I even recall taking part in an activity with a large group of climate activists during a workshop—many of whom I had marched with several months prior—where we tried to define the climate justice we had already demanded in at least 2 marches. What is clear, however, is that we were perceiving these marches as having an element of justice.

Most in the climate movement will not have had training in ethics. They are likely unaware of the non-identity problem (see last chapter) when they make appeals for concern for the wellbeing of future generations or when they call for reparations for historical emissions, as we often do. I doubt that many are familiar with the works of climate ethicists like Simon Caney, Dale Jamieson, Stephen M. Gardiner, or Henry Shue. They may not have consulted the Contraction and Convergence schema or Greenhouse Development Rights framework and understood the principles they are based upon. One could, for these reasons, be tempted to accuse climate justice activists of not having fully or properly interrogated the meaning of *climate justice*, of not knowing what *justice* really

means. But that would be unfair, because justice here carries a meaning quite different than the one climate ethicists hold. In this chapter I explore that sense of justice.

In the previous chapter, I was ultimately interested in how the sense of climate justice held by climate ethicists determined both the site of contestation they identified as most important to engage with—in that case, the UNFCCC—and how they interacted with it. I argued that climate-justice-as-climate-ethics required UNFCCC parties to be idealized entities, ones prioritizing a response to climate change but hesitant to enter into any agreement that was unfair. Ethics could engage with the matter by establishing principles and frameworks to guide the creation of a just global agreement that would encourage hesitant states to enter into it. I argued, however, that it fell outside of climate ethicists' prescriptive bounds once it became clear that the real-world UNFCCC parties do not conform to those ideal entities.

What this means is that some new set of agents must somehow contend with the UNFCCC parties and their representatives, must somehow influence them to act on climate change when ethical prescription alone is insufficient. As the set of agents changes and as the site of contestation shifts from the realm of an idealized UNFCCC, how does the sense of justice that guides these new agents change?

The climate crisis is not at its root *only* about ethics; it is also deeply political, involving a power struggle between the *demos* and existing concentrations of political and economic power that block UNFCCC parties from adopting the kind of just climate policy climate ethicists have done so much to describe. This struggle is an important missing element that the climate movement adds to the ethical approach to climate justice.

Some clarification is needed before proceeding. What is sometimes called the *climate justice movement* is a growing current within the larger climate change

movement.¹⁴⁵ Its framework would be associated with the analyses adopted by the World People’s Conference on Climate Change of 2010, the Indigenous Environment Network, Rising Tide, and the Climate Justice Now! network (active at COP15 in 2009), as well as the writings of Naomi Klein, Ian Angus, and Patrick Bond. It bears a distinctly radical analysis rooting the climate crisis in colonialism, racism, environmental injustice, free-market ideology, and capitalist growth. Concomitantly, climate change cannot be addressed without some kind of confrontation with colonialism and capitalism. Its actions are taken at multiple scales, increasingly local ones, and it draws links of allyship and solidarity with other justice movements; it is sometimes described as the newest phase in the global justice movement.¹⁴⁶

This radical current may be distinguished from a more moderate current within the movement that largely advocates for solutions within the dominant economic paradigm, like carbon pricing—even in its most controversial form of emissions trading and offsets, what the radical current often calls “false solutions.” While it shares with the radical current a concern with inequities between the Global North and South, the moderate current would not apply a critique rooted in colonialism. It is associated with NGOs like the Climate Action Network or the Citizens Climate Lobby.

The reason for raising this distinction here, and only in a broad sketch, is to avoid a potential danger arising from the radical stream having been given the name “climate justice movement.” This linguistic sleight risks leading to a conflation of the radical stream’s sense of justice with that of the broader climate movement. There would be two major problems with proceeding to write this chapter based on that conflation.

¹⁴⁵ A distinction like this is made, for example, in Donatella della Porta and Louisa Parks, “Framing Processes in the Climate Movement: From Climate Change to Climate Justice,” in *Routledge Handbook of the Climate Movement*, Matthias Dietz and Heiko Garrelts (eds.). (New York, NY: Routledge, 2014), 23.

¹⁴⁶ E.g., Naomi Klein, “Copenhagen: Seattle Grows Up,” *Nation*, November 11, 2009, <http://www.thenation.com/article/copenhagen-seattle-grows/>

First, the distinction between the moderate (climate *change*) movement and the radical (climate *justice*) movement is not a straightforward one to make when taking movement actions into consideration. In my time volunteering with climate activist organizations (if I may be permitted to draw on a bit of light anecdotal evidence), many of us adopt a radical *critique* of capitalism and colonialism in our analyses of the climate crisis, and yet the *actions* of our members—divestment campaigns; protest aimed at the regulatory body governing pipelines; occupations of politicians’ offices; pipeline blockades; marches; solidarity campaigns with Indigenous sovereignty and anti-racist movements; campaigning against the Harper Conservatives in the 2015 Canadian election—are not of the sort that present clear challenges to capitalism. At the same time, not all group members embraced an anti-capitalist critique; some were indeed moderate in their politics. And yet we all stood behind the actions. All the while, we would very much consider ourselves to be part of the climate justice movement (likely because of all the different applications the term “climate justice” has, as described in the introductory chapter). Tactics like the ones just mentioned can be justified under both moderate and radical views.

A second problem is that the *climate justice stream* has not been shown to compose the majority portion of the climate movement, and so focusing here on just the system-critical part would overlook a lot. This is evident in, for example, climate marches, which aggregate people supporting a variety of potential solutions to the climate crisis. A study looking at three marches—two of them timed just before COP15 (in Brussels and London on December 5, 2009) and one in Copenhagen during COP15 (December 12, 2009)—identified several different prescriptive framings among participants. In total, only about 24% of participants adopted what the study’s authors call a “system-critical global justice”¹⁴⁷ perspective, (which they

¹⁴⁷ The system critical global justice perspective is a combination of a “system change” framework, demanding a new economic model (which could range from classic socialist abandonment of capitalist, to degrowth, to the more vague “more sustainable model) and a “global justice” framework, concerned with global disparities between rich and poor that *implies* system change. Mattias Wahlström, Magnus Wennerhag, and Christopher Rootes, “Framing ‘The Climate

equate with the “climate justice movement”). The climate justice framework is often said to have emerged onto the global stage most vociferously at Copenhagen.¹⁴⁸ Yet even there, it accounted for at most 41% of march participants (for comparison, 43% of Copenhagen marchers called for changes in legislation and policy, a more moderate demand), and this was largely due to COP15 being a high-stakes meeting, making the results atypical of climate marches. Instead of climate justice becoming a “master frame” bridging the differences between diverse movement actors as they expected, the study’s authors conclude, “In short, announcements of the birth in 2009 of a transnational climate justice movement appear premature. At best, if it is a movement, it is one better embedded among organizations and movement intellectuals than among rank-and-file activists.”¹⁴⁹

To summarize this digression, both radical and moderate currents exist within the movement. And what is interesting is that, at this moment, both streams are engaging in many of the same sets of prominent actions motivated by moral imperatives. This chapter, like the previous one, is concerned with the relationship between a sense of climate justice, the key site or sites of contestation it identifies, and the kind of engagement it directs there; instead of using the sense of justice associated with the “climate justice” stream of the climate movement as a stand-in for the broader movement’s sense of it, I read what claims to justice the movement makes through its most prominent actions. What sense of climate justice can we infer from what the movement *does*? What do we learn if we let the actions speak for a sense of justice? What contribution to climate justice comes across through them?

Issue’: Patterns of Participation and Prognostic Frames among Climate Summit Protesters,” *Global Environmental Politics* 13, no.4 (2013): 108.

¹⁴⁸ See, e.g., Dana R. Fisher, “COP-15 in Copenhagen: How the Merging of Movements Left Civil Society Out in the Cold” *Global Environmental Politics* 10, no. 2 (2010): 15; Jennifer Hadden, “Explaining Variations in Transnational Climate Change Activism: The Role of Inter-Movement Spillover,” *Global Environmental Politics* 14, no. 2 (2014): 17.

¹⁴⁹ Wahlström, Wennerhag, and Rootes, “Framing “The Climate Issue””: 120.

In this chapter, I focus on the following prominent movement actions: (1) presence at UNFCCC COPs; (2) climate marches and mobilizations; and (3) fossil fuel divestment campaigns and direct-action blockades of fossil fuel infrastructure (“blockadia”). These are actions that can be justified through the analyses of both the radical and moderate streams of the climate movement. Take for example action (3). On the one hand, divestment campaigns and direct-action blockades could very well be moderate actions because they do not undermine the functioning of capitalism (part of the divestment argument actually appeals to capitalism’s profit logic) and are a necessary step in even the creation of even a post-carbon liberal order.¹⁵⁰ On the other hand, it could just as well stem from a critique of capitalism expressing itself here through a challenge to the ability of a *sector* within capitalism—here, the fossil fuel industry—to function in the market with few regulations. So should we understand divestment groups to be part of the climate *justice* movement?

I argue that in reading these actions, we can infer that the climate movement’s sense of justice is one best characterized by efforts to make political and economic systems democratically *accountable* to its moral demands for climate action, to prevent them from making policy decisions independently of democratic movements. To be sure, demands associated with these actions may vary in terms of their degrees of detail, ambition (e.g., very deep and rapid emissions cuts) and radicalness (e.g., systemic change), but the actions themselves are nevertheless best read as seeking accountability from elites to adopt them.

However, in the existing institutional order, not all of those demands are equally likely to be adopted. I look more deeply into the nature of that order in the next chapter, but for now I believe it will be enough to point out that it is one characterized, economically, by large sectors of the economy under private (largely corporate) control and concerned with preserving high capitalist growth and profit,

¹⁵⁰ The politically liberal climate website *Climate Progress* frequently features approving news about divestment campaigns.

and, politically, by a low-intensity form of democracy in which elected elites govern without significant participation from the *demos* other than elections. Some way is needed of theorizing the interaction between this order and climate movement actions to assess the likelihood of seeing demands for accountability being met. For that, I turn to the concept of “friction.” The sense of friction I am drawing on comes from Anna Tsing’s work on globalization. She writes, “A wheel turns because of its encounter with the surface of the road; spinning in the air it goes nowhere. Rubbing two sticks together produces heat and light; one stick alone is just a stick.”¹⁵¹ “Friction” as I am using it here refers to antagonistic political interactions in which a movement’s demands are capable (1) of *registering* in the logic of the dominant liberal economic and political order, and (2) of being resolved by it through policies or reforms that political elites are likely to adopt. Like Tsing’s metaphor of the wheel and the road, friction is required to move forward, to get anywhere. The climate movement that does not present its demands to anyone or makes demands it knows governments could never accept is like that wheel spinning in the air, going nowhere.

The climate movement creates the friction for its demands through its various actions. As we will see when we look at divestment actions, for example, the movement makes its demands for a variety of moral reasons, but seeks to gain friction for them by showing that continued financial investments in fossil fuel companies will eventually lead to loss of returns on investment. This interaction is

¹⁵¹ Tsing used friction to describe encounters between different cultures in a time of globalization: “As a metaphorical image, friction reminds us that heterogeneous and unequal encounters can lead to new arrangements of culture and power.” I originally encountered the concept close to a decade ago and had some difficulty tracking it down at the same time that the faded memory of it was working its way through my mind and shaping to become applicable to this chapter. In case the alteration of Tsing’s concept is problematic, I considered other metaphors—“*finding purchase* with the system,” “*latching* onto the system,” “*resonating* with the system,” or “being *metabolizable* by the system—but kept Tsing’s *friction* in order to give her the credit for sparking the thought (however altered it might have eventually become in my hands). This is why I say I am only *drawing on*, but not *applying*, the original concept. Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* Princeton, N.J.: Princeton University Press, 2005. *eBook Collection (EBSCOhost)*, EBSCOhost (last accessed November 15, 2016).

an antagonistic one because many institutions have been resistant to demands to divest and require pressure from below.

Not all demands are capable of picking up the same degree of friction when coming into confrontation with the existing system; we should logically predict that radical demands for “system change” will be rejected outright, as will demands for *extremely* ambitious (i.e., immediate and drastic emissions reductions) climate action incompatible with capitalist growth. This introduces a dilemma. The more the demands require or articulate a vision of society contrary to the logic of the dominant liberal order, the more likely it will be that they slip off its surface; the more friction for their demands the movement seeks to gain, the more it must appeal to the reigning systemic logic, and cannot press its most ambitious or radical elements.

In sum, this chapter seeks to answer the questions, (1) What sense of climate justice can we infer from—because it is most consistent with—prominent climate movement actions, and (2) What potential do these actions hold for spurring an effective and just response to the climate crisis?

2. Climate Movement Presence at the UNFCCC

Peter Newell offers a typology (expanded upon by Caniglia, Brulle, and Szasz) to distinguish groups and strategies within the climate movement according to the degree of access to centres of decision-making associated with them.¹⁵² *Insider-insiders* (e.g., World Wildlife Fund, Environmental Defense Fund) have considerable access to negotiations and rely on typical lobbying tactics. They approve of market mechanisms like emissions trading, will collaborate with the private sector, and

¹⁵² Peter Newell, “Climate for Change? Civil Society and the Politics of Global Warming,” in *Global Civil Society 2005/2006*, M. Glasius, M. Kaldor, and H Anheier, eds. (Thousand Oaks, CA: Sage, 2006); Beth Schaefer Caniglia, Robert J. Brulle, and Andrew Szasz. “Civil Society, Social Movements, and Climate Change,” in *Climate Change and Society: Sociological Perspectives*. Riley E. Dunlap and Robert J. Brulle, eds. (New York, NY: Oxford University Press, 2015).

believe international institutions can deal with the climate crisis effectively. *Insider-outsiders* (e.g., Friends of the Earth, Greenpeace) take a peripheral, confrontational position despite having some access to negotiations. They are critical of market mechanisms and believe that governments require the adoption of legal regulations to respond to climate change and so work through the formal negotiating process. *Outsider-outsiders* (e.g., the more radical stream of the climate movement) have no access to formal negotiations. They reject market mechanisms and believe that systemic change is required to address climate change. The organization of this section echoes that progression from inside to outside, but with the degree of *friction* in mind rather than group *access* to negotiations.

The UNFCCC is seen as one of the more inclusive and accessible venues for civil society among global governance institutions.¹⁵³ But though accessible, it is not participatory in that civil society does not hold decision-making power. Rather, the UNFCCC accredits civil society members to take part in COPs in a number of other roles through which they try to exert influence on negotiators. Accredited civil society members hold side events and exhibits inside the building of official negotiations.¹⁵⁴ Privy to the climate negotiations, they can also perform a “watchdog” role by reporting negotiation developments to the wider world. Non-government organizations may additionally lobby state negotiators directly in one-on-one sessions.¹⁵⁵

¹⁵³ Fisher (2010): 11.

¹⁵⁴ The UNFCCC keeps a record of side events and exhibits for each COP. To get a sense of how diverse and numerous they are, see <https://seors.unfccc.int/seors/reports/archive.html#exhibits>. For some analysis of the different framings used in these events from COP3 to COP17, see Mattias Hjerpe and Katarina Buhr, “Frames of Climate Change in Side Events from Kyoto to Durban,” *Global Environmental Politics* 14, no. 2.

¹⁵⁵ For an example of how one prominent NGO saw its influence on Canadian negotiators, see CAN-RAC, “Climate Action Network nudged Canada's best at COP21” <http://www.nationalobserver.com/2015/12/13/climate-action-network-helped-bring-out-canadas-best-cop21>. The article is not impartial. It is sponsored by the Canadian contingent (CAN-RAC) of the Climate Action Network and describes its lobbying activities at COP21.

Civil society may also address negotiations as “interveners” at either the opening or closing of plenary sessions. (In rarer cases, civil society organizations may be included within the delegations of country negotiators, though this tends to be in cases of negotiator fatigue.¹⁵⁶)

The movement has used accredited insiders in other innovative ways to push for accountability for its demands. The Climate Action Network (CAN), perhaps the most prominent civil society network at the COPs, has innovatively combined its observer status and side event host role in its tongue-in-cheek “Fossil of the Day” Awards, awarded to nations CAN members judge to be most obstructing climate action. Eagerly covered by media (*Slate* called it “the Best Part of the Paris Climate Summit”), the awards work to shame national leaders on a global stage into agreeing to the kind of ambitious agreement civil society is demanding.

Some accredited observers are more direct. Anjali Appadurai, a student speaking on behalf of youth delegates, famously stood before UNFCCC negotiators in 2011 as an intervener and harshly castigated them for long-standing lack of ambition and failure to recognize equity issues concerning the Global South. As she put it, “You have been negotiating all my life...Get it done.”¹⁵⁷ Others have used their position to interrupt representatives of particularly recalcitrant countries in the official talks.¹⁵⁸ In Warsaw in 2013, around 800 accredited civil society participants

¹⁵⁶ Newell, “Climate for Change? Civil Society and the Politics of Global Warming,” 102. This fatigue is more prevalent among developing country delegations where because of lack of resources only a small number of delegates can be sent to negotiations.

¹⁵⁷ “‘Get It Done’: Urging Climate Justice, Youth Delegate Anjali Appadurai Mic Checks U.N. Summit,” *Democracy Now!*, December 9, 2011, http://www.democracynow.org/2011/12/9/get_it_done_urging_climate_justice; Appadurai ended her speech with a “mic check,” a tactic borrowed from the Occupy movement. As she put it, “The ‘mic check’ was a way for us to tell the world leaders: we don’t need your fancy mic in your fancy conference hall. We have our collective voices and they’re more powerful than you think. It was a pretty radical move, but much-needed in that setting and at that time.” See Renu Singh-Joseph, “Spotlight: Anjali Appadurai,” *Darpan*, 14 Feb, 2014, <http://www.darpanmagazine.com/people/newsmakers/anjali-appadurai/>; and Anjali Appadurai, “Anjali Appadurai interview about her courageous speech at 2011 UN conference on climate change,” Youtube video, 8:04, uploaded July 4, 2012 by “TakingOnTheGiant.com,” <https://www.youtube.com/watch?v=xov8XL3fhIg>

¹⁵⁸ At COP17, 6 delegates from the Canadian Youth Coalition stood up during the remarks of then-Canadian Environment Minister Peter Kent and turned their backs on him. Another student

(even among more conservative NGOs like the World Wildlife Fund) staged an unprecedented walkout from the talks, protesting parties' failure to commit to emissions reductions and North-South financing, the host government's commitment to fracking, the sponsorship of the talks by polluting corporations, and a pro-coal summit taking place in conjunction with the COP.¹⁵⁹

Other movement actions take place outside the UNFCCC negotiations, but are still aimed at them. The primary outside action is the march (I deal with how marches communicate a sense of climate justice in greater detail in the next section). COP15 witnessed a massive march of about 100,000 people, making a variety of demands for leaders to meet. (As mentioned in the introduction, the largest contingents of marchers there were split almost evenly between those calling for global justice or system change (41%) and for more moderate changes to policy and legislation (43%).) The following year, COP16 saw a march of around 10,000 organized by La Via Campesina to oppose the United Nations Reducing Emissions from Deforestation and Forest Degradation (REDD+) Program and emissions trading systems, condemned as "false solutions" to climate change for transferring the atmosphere and Indigenous lands over to private market actors (as discussed in the introduction).¹⁶⁰

Some have proposed the 1999 Seattle protests which shut down World Trade Organization negotiations—remembered on the political left as a popular

interrupted US negotiator Todd Stern's speech at COP17 telling him "I am scared for my future. 2020 is too late to wait. We need an urgent path to a fair, ambitious, and legally binding treaty. You must take responsibility to act now." See "Canadian Youth Delegation Ejected from COP17," December 10, 2011, <https://canadianyouthdelegation.wordpress.com/2011/12/07/press-release-youth-turn-their-backs-on-canadian-government-during-opening-speech/>; and "I'm Scared for My Future': Student Disrupts Speech by U.S. Climate Envoy Todd Stern in Durban," *Democracy Now!*, December 8, 2011, http://www.democracynow.org/2011/12/8/im_scared_for_my_future_student

¹⁵⁹ "NGOs, Social Movements Walk Out Of Warsaw Talks," *World Wildlife Fund*, November 21, 2013, http://wwf.panda.org/wwf_news/?212532/NGOs-Social-Movements-Walk-Out-Of-Warsaw-Talks

¹⁶⁰ "Strong rejection of REDD by La Vía Campesina Mobilisation," La Vía Campesina, December 10, 2010, <http://viacampesina.org/en/index.php/actions-and-events-mainmenu-26/-climate-change-and-agrofuels-mainmenu-75/985-strong-rejection-of-redd-by-la-via-campesina-mobilisation>

democratic block on the imposition of neoliberal trade policy—as a model for climate movement mobilization at the COPs. Through mass direct-action protests, the movement might steer the negotiations away from unambitious goals or retain a kind of veto over agreements made.¹⁶¹ The closest the movement has so far come to “Seattling” the UNFCCC was in planning a tactic under the name “Reclaim Power!” for COP15. Climate justice movement activists would storm the Bella Center—the official site of UNFCCC negotiations—and occupy it for one day to hold a People’s Summit or People’s Assembly, where it aimed to align the UNFCCC agenda with climate justice movement goals. As Climate Justice Now! (CJN), the organizing network, put it:

[O]ur Reclaim Power! march will push into the conference area and enter the building, disrupt the sessions and use the space to talk about our agenda, an agenda from below, an agenda of climate justice, of real solutions against their false ones [...] Our goal is not to shut down the entire summit. But this day will be ours, it will be the day we speak for ourselves and set the agenda: climate justice now! We cannot trust the market with our future, nor put our faith in unsafe, unproven and unsustainable technologies. We know that on a finite planet, it is impossible to have infinite growth – 'green' or otherwise. Instead of trying to fix a destructive system, we are advancing alternatives that provide real and just solutions to the climate crisis: leaving fossil fuels in the ground; reasserting peoples' and community control over resources; relocalising food production; reducing overconsumption, particularly in the North; recognising the ecological and climate debt owed to the peoples of the South and making reparations; and respecting indigenous and forest peoples' rights.¹⁶²

The most extreme application of the “Seattling” model would be to use it to indefinitely terminate the UNFCCC process should it continually fail to meet

¹⁶¹ Naomi Klein, “Copenhagen: Seattle Grows Up,” *The Nation*, November 11, 2009, <http://www.thenation.com/article/copenhagen-seattle-grows/>; Maxime Combes “Towards Paris 2015: challenges and perspectives Blockadia and Alternatiba, the two pillars of climate justice,” *France-ATTAC*, (2014) https://france.attac.org/IMG/pdf/Towards_Paris2015-climate%20justice.pdf. Combes also invokes the Cochabamba “Water War” of 2000 that reversed the privatization of water services; Brent Patterson, “Will the climate justice movement “Seattle” the Paris talks?,” *Council of Canadians*, June 7, 2015, <http://canadians.org/blog/will-climate-justice-movement-seattle-paris-talks>

¹⁶² The original *Climate Justice Now!* site, from which this quote originated, no longer exists. This excerpt is taken from “Reclaim Power: Pushing for Climate Justice! Copenhagen, 16 December,” *The Laboratory of Insurrectionary Imagination*, August 19, 2009: <http://www.labofii.net/news/2009/08/reclaim-power-pushing-for-climate.html>

demands for justice.¹⁶³ Movement actions have tended to avoid going this far, however. Bedall and Görg note that unlike the anti-globalization movements that *resist* governance institutions (in their case, the World Trade Organization, World Bank, and International Monetary Fund), even the more radical networks of the climate movement have sought to *engage* with their relevant governing body to *transform* it rather than reject it.¹⁶⁴ (If this is the case, the comparison with Seattle might not be the most accurate.) Even the Reclaim Power action can be seen in this light, an action intended to assert alternative solutions to the climate crisis for the global climate governance system to adopt.¹⁶⁵

Altogether, this combination of inside and outside actions suggests an assessment that understands COPs as important sites of contestation and engagement where movement pressure can achieve friction. The movement's presence at official UNFCCC meetings attempts to check negotiation outcomes from diverging from its sense of climate justice. In some cases—the Fossil of the Day awards, interruptions of negotiations, the COP17 NGO walkout—a sense of climate justice led to actions aimed to pressure or shame negotiators into adopting more ambitious climate commitments, or to observe the common-but-differentiated-responsibilities principle between north and south. In other cases we see a sense of climate justice leading to more detailed demands for accountability; the march protesting REDD+, for its part, challenged the legitimacy of market-based climate policies, and the plan to occupy and set the agenda for the COP meetings proposed alternative solutions outside the logic of capitalism and economic growth.

Here we encounter the problem of friction. The more movement demands for climate justice grow more detailed, ambitious, and opposed to the logic of economic

¹⁶³ See Patrick Bond, "Maintaining momentum after Copenhagen's collapse: Seal the deal or "Seattle" the deal?" *Capitalism, Nature, Socialism* 21 no. 1 (2010).

¹⁶⁴ Philip Bedall and Christoph Görg, "Antagonistic Standpoints: The Climate Justice Coalition Viewed in Light of a Theory of Societal Relationships with Nature," in *Routledge Handbook of the Climate Movement*, Matthias Dietz and Heiko Garrelts (eds.) (New York, NY: Routledge, 2014), 56.

¹⁶⁵ Hadden, "Explaining Variations in Transnational Climate Change Activism": 18.

growth powered by capitalism, the degree of friction they can achieve falls off. The Paris Agreement, the most recent climate agreement, is a mixed bag compared against the demands the movement has pushed for. It recognizes a climate target of keeping global average temperature rise “well below” 2°C and an aspirational target of 1.5°C. But the movement was not able to gain friction for demands for legally binding commitments on emissions reductions or climate financing. And nothing about the Paris Agreement really *commits* countries to a sharp turn away from market mechanisms or capitalist orthodoxy. Even if an action like CJN’s Reclaim Power at the 2009 COP had occurred (in the end the state took the standard measures—kettling and mass arrests—to suppress it¹⁶⁶), it is difficult to see the action achieving enough friction to fulfill the goal to “set the agenda” at negotiations, particularly given its list of demands. Following some of the more confrontational inside actions, civil society members have even seen accreditation stripped away. Remarking on the actions of the climate justice movement at COP15, Fisher concludes, “Although outsider tactics are an effective means of gaining media attention, they have the unintended consequence of increasing the disenfranchisement of civil society in international regimes.”¹⁶⁷ Parks and Roberts, likewise, note,

if NGO coalitions and insider-outsider networks continue to press the issues of ‘climate justice’ and ‘ecological debt’, they could face fierce resistance to proposals that are viewed as overly redistributive or inconsistent with neoliberal economic principles. Therefore, if they hope to effectuate significant policy changes, climate justice norm entrepreneurs will likely need to blend arguments about the moral imperative of climate change with the pragmatic economic logic of addressing a problem before it becomes too costly. In all likelihood, they will also need to consider burden-sharing proposals that represent *moral compromise*.¹⁶⁸

¹⁶⁶ Bibi van der Zee, “Protests in Copenhagen: Rights groups press for inquiry into police tactics,” *Guardian*, December 13, 2009, <https://www.theguardian.com/environment/2009/dec/13/copenhagen-protests-police-tactics>

¹⁶⁷ Dana R. Fisher, “COP-15 in Copenhagen”: 16

¹⁶⁸ Bradley C. Parks and J. Timmons Roberts, “Climate Change, Social Theory and Justice,” *Theory, Culture & Society* 27, no. 2-3 (2010): 151. Emphasis mine.

The movement appears to have understood these constraints; not all of its outside activity during COPs is directed at the UNFCCC. Indeed, one of the most important results of the climate justice movement's presence at COPs since 2009 was to shift attention away from the UNFCCC, which it increasingly deems sclerotic and beholden to corporate interests. Instead, some outside activities are aimed at taking advantage of the assembling of climate activists in order to build a mass movement that can undertake actions back home to bring *national and subnational* elites to accept its climate demands.¹⁶⁹ Alternative climate forums like the Klimaforum during COP15 provide occasions for reframing the analysis on climate change. The UNFCCC thus becomes one site of engagement amongst others.

3. Climate Marches

Mass climate mobilizations outside of the official climate negotiation system present another site of struggle and another version of climate justice. An important indication of the sense of justice they carry is the timing of the largest rallies and protests, which have frequently been organized to immediately precede or coincide with high-level climate talks outside the official UNFCCC system. Consider just the following:

- New York, September 21, 2014, *The People's Climate March* (400,000 people) timed for special United Nations talks (called simply the Climate Summit 2014) attempting to achieve some progress on climate negotiations before the 2015 Paris summit, though it was not officially part of the UNFCCC;
- Quebec, April 11, 2015, *Act on Climate March* (25,000 people) timed for the First Ministers climate summit planned by Canadian provincial premiers;
- Toronto, July 5, 2015, *March for Jobs, Justice and the Climate* (10,000 people) planned to precede the Pan-American Climate Summit and Economic Summit;

¹⁶⁹ Consider the wording of *The People's Test on Climate 2015* written by several major NGOs: "We see Paris as a beginning rather than an end – an opportunity to start connecting people's demands for justice, equality, food, jobs, and rights, and strengthen the movement in a way that *will force governments to listen and act in the interests of their people* and not in the vested interests of elites [emphasis mine]." <http://peoplestestonclimate.org/>

- Ottawa, November 29, 2015, *100% Possible March for Climate Solutions and Justice* (25,000 people). Held the day before COP21 began, it was organized prior to the federal election and aimed to pressure whichever political party came into power to take action on climate change.

It is not only the timing of the marches that suggests their intent to put pressure on governing elites for action. In a *Rolling Stone* piece where Bill McKibben issued a “call-to-arms” for the New York march, the appeal to political leadership to be accountable to marchers’ demands is clear:

[T]he “world's leaders” haven't been leaders on climate change – at least not leaders enough. Like many of us, they've attended to the easy stuff, but they haven't set the world on a fundamentally new course [...]

In a rational world, no one would need to march. In a rational world, policymakers would have heeded scientists when they first sounded the alarm 25 years ago. But in this world, reason, having won the argument, has so far lost the fight. The fossil-fuel industry, by virtue of being perhaps the richest enterprise in human history, has been able to delay effective action, almost to the point where it's too late. So in this case taking to the streets is very much necessary.¹⁷⁰

Following that march, May Boeve, executive director of 350.org said of the People’s Climate March, “Today, civil society acted at a scale that outdid even our own wildest expectations. Tomorrow, we expect our political leaders to do the same.” A press release issued by organizers immediately following the march featured a series of statements from prominent actors involved. Doing a quick survey of the 37 statements collected there, by far the most frequently asserted view (54%) was that the march was an appeal to leadership to adopt some form of serious climate policy, frequently referred to simply as “action.”¹⁷¹

¹⁷⁰ Bill McKibben, “A Call to Arms: An Invitation to Demand Action on Climate Change,” *Rolling Stone*, May 21, 2014, <http://www.rollingstone.com/politics/news/a-call-to-arms-an-invitation-to-demand-action-on-climate-change-20140521>

¹⁷¹ “Largest Global Call for Climate Action in History,” *People’s Climate March*, September 21, 2014, <http://2014.peoplesclimate.org/press-release/largest-global-call-for-climate-action-in-history/>. It is not clear what criteria was used in collecting the statements, or whether the statements were edited from longer ones or submitted in short form. In looking at the statements, I identified six different discourses: the need for governments to take some kind of strong action (54%), assertions that climate change leads to differential impacts on frontline communities (22%), condemnations of

Climate marches are timed to make political elites accountable to mass demands for climate action. As noted above, marches assemble diverse voices, but, where timed to coincide with major climate talks, their primary thrust is to highlight the failures of democratic political leadership and the influence on them from the fossil fuel industry: the vision of change being advanced is presumably that democratic states have so far failed to take the necessary actions to lower emissions, and some democratic force is therefore needed to pressure those states to adopt policies that end the injustice of continued failure to act on climate change. As calls for climate “action,” they do not necessarily call for system change and can attempt to work within the existing system.

Another feature of recent climate marches is their diversity. The New York march, for instance, was organized by a coalition of organizations, and by the end, 1500 partner organizations were involved.¹⁷² I have little doubt that participant prognoses for the climate crisis were at least as diverse as the ones studied in 2009 described above.¹⁷³ The march embraced this diversity, but also recognized that if mobilized without structure, this diversity could result in a confused babel of messaging. Organizers took an innovative step to arrange the march to

the fossil fuel industry and its influence on economic and climate policy (19%), assertions that everyone will be affected by climate change/reminders that a particular group (a union, coal workers, “God’s creation”) will also be affected by climate change (13.5%), demands for good jobs and a better economy (13.5%), and celebrations or assertions of the power of the people in mass movements (11%). Some statements contained discourse that fell into more than one of these categories.

¹⁷² For a full list, see “Partners,” *People’s Climate March*, <http://2014.peoplesclimate.org/partners/>

¹⁷³ I was on the bus trip from Toronto to the New York that Toronto350.org organized for the march. There, I heard Master’s students in York University’s Environmental Studies program situating the problem of climate change in capitalism. The group I marched with, the Toronto chapter of 350.org, held signs demanding clean energy: “Canadians for a Fossil Free World” or “Canadians for Green Energy Investment.” Our mobilizing chants called for an end to the Stephen Harper government and to the tar sands. Behind me at the march, I heard two men calmly discussing philosopher Derrick Jensen’s strategy of armed resistance against not just the fossil fuel industry, but civilization itself.

communicate what they saw as a narrative, dividing it into 6 sections in the following order:¹⁷⁴

- *Frontlines of Crisis, Forefront of Change*, which featured people experiencing the early impacts of climate change and who were leading the fight against climate change—indigenous groups, migrant-justice and housing-justice groups, and survivors of Hurricane Sandy (which had recently torn through New York and primarily affected communities of colour);
- *We Can Build the Future*, which was composed of labour groups, students, families, youth, women, and elders and intended to remind people that “every generation’s future is at stake and we can build a better one”;
- *We Have Solutions* brought together several environmental groups to show the variety of responses possible to the climate crisis;
- *We Know Who is Responsible* assembled protest groups standing against extreme fossil fuel projects like tar sands and fracking, as well as against war and corporate capitalism;
- *The Debate is Over* featured scientists and interfaith groups; and
- *To Change Everything, We Need Everyone* demonstrated the diversity of the group beyond the climate movement, bringing in LGBTQ groups, and neighbourhood, city, and national groups.¹⁷⁵

That narrative approach spread quickly. In July 2015, a few months after the march in New York, Toronto held *The March for Jobs, Justice and the Climate*. It too was organized by a variety of Indigenous (e.g., Idle No More), environmental (e.g., Toronto350.org), labour (e.g., Unifor), and social justice (e.g., No One Is Illegal) groups, and was divided into sections similar to those in New York, with frontline communities leading the march.¹⁷⁶

The organization of these recent mass climate mobilizations communicates their sense of justice in several ways. First, and of special importance, is the

¹⁷⁴ As organizers put it in an FAQ, “In marches as big as this one will be, the many messages we need to communicate to the world often get lost. This time, we want to make sure the People’s Climate March clearly expresses the story of today’s climate movement - so we’re trying something new, and arranging the contingents of the march in a way that helps us thread our many messages together. Together, let’s tell the world a clear, powerful story!” (“FAQ,” *People’s Climate March*, https://docs.google.com/document/d/1PXv54n8r6kk00A2ijynwGAQcAVoNvsGlxdNjubr_0o/edit)

¹⁷⁵ “The People’s Climate March Lineup: Telling the Story of Today’s Climate Movement,” *People’s Climate March*, accessed March 13, 2016, <http://2014.peoplesclimate.org/lineup/>

¹⁷⁶ “Partners,” *March for Jobs, Justice and the Climate*, accessed March 13, 2016, <http://jobsjusticeclimate.ca/partners/>; <http://jobsjusticeclimate.ca/about-2/>; And it too was populated by diverse messages. Before the march began, a member of migrant justice group No One is Illegal gave a rousing speech (notably with little overt mention of climate).

positioning of frontline communities in the lead of recent marches. This positioning deliberately places an intersectional analysis of the climate crisis quite literally front and centre, drawing attention to how race, Indigeneity, and class interact in complex ways with climate change and the extractive processes driving it, leading to disproportionate impacts on Indigenous communities and communities of colour. This arrangement contrasts sharply with the UNFCCC process where frontline communities have no official negotiating role despite being most endangered by the failure to secure an effective global climate agreement; unrepresented in global climate negotiations, they here hold the most prominent voice, and ought to have their demands prioritized. All of this asserts a view of the climate crisis as a form of environmental injustice that cannot be resolved without difficult confrontations with colonialism and racism, and how they enable extractive capitalism.

The prominence of this system-critical messaging is not always welcomed in the movement, however. Paris was set to see a massive march just before COP21, but French officials cancelled it following the terrorist attack by members of the Islamic State in Iraq and Syria (ISIS) on November 13. The main site of mobilization shifted to London instead, where Wretched of the Earth, a bloc representing communities of colour on the frontlines of climate change, had been promised the lead spot in the march. Their messaging, centering on the role of colonialism and corporate capitalism in engendering the climate crisis and creating differential impacts on communities of colour, was allegedly deemed too controversial and divisive for march organizers who proceeded to jockey activists in animal costumes to the front to present a friendlier face.¹⁷⁷ Wretched of the Earth reasserted their right to lead the march (their slogan: “First to die, first to fight, first to march”), sitting down in the street and obstructing the continuation of the march.¹⁷⁸

¹⁷⁷ For a short but powerful video giving a sense of Wretched of the Earth’s sense of climate justice, see Wretched of the Earth, “#NoColonialism,” YouTube video, 4:40, uploaded November 25, 2015 by “Black Dissidents,” <https://www.youtube.com/watch?v=sxOqJ18WAZg>

¹⁷⁸ Tisha Brown, “Decolonialism 101: We need to talk about oppression,” *New Internationalist*, December 2, 2015, <http://newint.org/blog/guests/2015/12/02/we-need-to-talk-about-oppression/#comments>; Joshua Virasami and Alexandra Wanjiku Kelbert, “Darkening the

In their inclusivity, recent climate marches also present opportunities for disparate groups to assert concerns about the issue from their respective standpoints. The presence of diverse groups from outside of the environmental movement showcases and celebrates the results of recent organizing efforts, which had intensified following COP15, to link together a “movement of movements” modeled on the diverse global justice movement in what is sometimes called “frame-bridging” or “social movement spillover.”¹⁷⁹ Migrant justice groups understand that climate change will compel migration and displacement in a time of border securitization. Food justice groups see that climate change will endanger access to food. Healthcare workers see firsthand the effects of fossil fuel pollution as well as the effects of climate impacts following extreme events. Climate action thus becomes not simply a demand from an undifferentiated mass focused on an environmental issue, but one from diverse sections of society concerned with multiple matters of justice, a broad-based democratic demand stretching far beyond environmentalist circles. Organizers of the Toronto march branded it “a new kind of climate movement” to distinguish it from the siloed, NGO-driven, primarily environmental movement of the past.¹⁸⁰

At the same time, finally, the diversity of the marches can also express potentialities for a different and more just society. The diversity of actors drawn to the issue of climate change invites a search for a shared vision of a more just society that can address it. An especially important addition to the climate movement has

White Heart of the Climate Movement” *New Internationalist*, December 3, 2015, <http://newint.org/blog/guests/2015/12/01/darkening-the-white-heart-of-the-climate-movement/>; “Indigenous people were silenced and erased,” *New Internationalist*, December 17, 2015, <http://newint.org/blog/2015/12/17/wretched-of-the-earth-open-letter/>

¹⁷⁹ Naomi Klein, “The People’s Climate March: Meet the Next Movement of Movements,” *The Leap*, September 14, 2014, <https://theleapblog.org/the-peoples-climate-march-meet-the-next-movement-of-movements/>; della Porta and Parks, “Framing Processes in the Climate Movement: From Climate Change to Climate Justice,” 19-29; Hadden, “Explaining Variations in Transnational Climate Change Activism.”

¹⁸⁰ Naomi Klein, “Canada’s New Climate Movement,” *Nation*, June 5, 2015, <https://www.thenation.com/article/canadas-new-climate-movement/>

been labour unions.¹⁸¹ Their presence is reflected in how a large part of the New York, Toronto, and Ottawa march narratives was that a serious climate response would require replacing an unjust neoliberal economic model prone to crises, austerity, inequality, and environmental destruction with a new economy characterized by massive reinvestment in the public and renewable energy sector to rapidly develop clean energy infrastructure providing millions of jobs across the world. Among other demands were that these jobs would have to pay a living wage, that they would be available to all fairly, and that the various sectors of the new economy would respect Indigenous land rights.

The climate crisis and the economic crisis are thus, these climate marches assert, resolvable by the same approach, and thereby link together a variety of groups under a vision of a new and more just society characterized by better employment. Describing the Toronto climate march as being about a “justice-based transition” away from a fossil fuelled society, Klein notes “it’s really important for social movements to have a coherent vision, to push the government on what we want. We want to tackle poverty and inequality and climate change at the same time, we don’t want those issues pitted against each other.”¹⁸² These demands,

¹⁸¹ Unifor, Canada’s largest private sector union, which also represents workers in the fossil fuel industry, joined prominently in the Toronto climate march. See John Cartwright, “We don’t have to choose between jobs and climate action,” Rabble, June 24, 2015, <http://rabble.ca/blogs/bloggers/john-cartwright/2015/06/we-dont-have-to-choose-between-jobs-and-climate-action>; and Joseph Brean, “Climate rally brings together ‘uneasy coalition’ of Naomi Klein and union boss Jerry Dias,” National Post, May 21, 2015, <http://news.nationalpost.com/toronto/climate-rally-brings-together-uneasy-coalition-of-naomi-klein-and-union-boss-jerry-dias>

¹⁸² Rachel Browne, “We Talked to Naomi Klein About Canada’s Climate Record and Her Vatican Alliance” *Vice*, July 5, 2015, http://www.vice.com/en_ca/read/we-talked-to-naomi-klein-about-canadas-climate-record-and-her-alliance-with-the-vatican. Klein notes further, “The overall message is that our politicians are not treating climate change like the emergency that it is. They are also not treating action on climate change like the opportunity that it is. Because if we take this crisis seriously, if we stop denying it, then we would be making huge investments in our energy economy, our transportation economy, that would create massive numbers of jobs. We could make sure they were well-paying jobs and we could make sure that the people who got those investments were the ones who needed it most. And that’s why the framing of this march is jobs, justice, and climate action. Because we’ve been told we need to choose between these things, between jobs and the environment. And that’s just not true. We can create jobs by responding to climate change in a way that our current economy is failing to do.”

originating from below and from a broad-based constituency, are seen as being more authentically democratic than top-down climate policy.¹⁸³ (This sense of authenticity is attested to by the marching chant used since at least the Seattle WTO protests: “Show me what democracy looks like! *This is what democracy looks like!*”) Political elites must be accountable to more than just demands for “action,” but to a more specific vision of a just society from the *demos*.

In sum, we can read the justice of climate marches as one of directing democratic pressure for ambitious climate policy towards national and subnational political leadership that has so far been unresponsive in taking on climate change: marches pressure political elites to do what is just. That sense of justice can be amplified and articulated by organizing the diverse constituency making the demands to emphasize the environmental injustice of climate change; the voices of those most heavily affected; the broad and multi-sectoral democratic base of demands; and the vision of society being demanded.

The movement, however, must somehow address the fact that not all of these components easily gain friction. (And some thinkers have even been dismissive of the ability of marches like these to do much of anything at all.¹⁸⁴) To be sure,

¹⁸³ See, e.g., Naomi Klein’s remarks at the media conference launch of the March for Jobs, Justice & the Climate Launch (Naomi Klein, “Naomi Klein - March for Jobs, Justice & the Climate Launch,” 7:00, uploaded May 27, 2015 by “350.org,” <https://www.youtube.com/watch?v=esCgfUD-Ew>)

¹⁸⁴ Consider the reflections of journalist and author Roy Scranton on the People’s Climate March, worth quoting at length: “[T]he message the march was supposed to embody was never clear. If the intent was to raise awareness, we’d be right to ask what a march is supposed to do that a preponderance of scientific data, decades of research, almost daily articles in major media outlets worldwide, and 19 United Nations conferences on the issue since the United Nations Framework Convention on Climate Change first met in Berlin in 1995 could not. If the plan was to convince conservative and mainstream Americans to pay attention to climate change, it’s hard to see how a bunch of environmentalists marching through a city most Americans consider a bastion of rich liberals might be expected to accomplish that. If the intent was to demonstrate the political power that the umbrella organizations could motivate in terms of voters, we should ask which voters, where they’re from, how they usually vote, and how many there were. None of that information was collected.

“So one’s left to wonder exactly what kind of pressure this march was supposed to put on the American political process, or for that matter *any* political process. The march was tightly constrained by police barriers, directed through low-traffic streets far from the United Nations—far

marches have a variety of functions—to strengthen networks, to showcase and celebrate the strength of movements, to (re)assert agency—though their primary one is to make demands of a political elite for accountability. But, recent attempts to organize them into a narrative notwithstanding, marches are eminently interpretable, even co-optable, by that political elite. The systemic challenge coming from the climate movement’s more radical stream, in particular, is weakened to the degree that elites are free to interpret march demands.¹⁸⁵ After all, marches are not like referenda, which bind politicians to specific demands; political elites have little obligation to register a given march as anything other than what we might call *mass reserves of raw volition* supporting climate “action” to be fashioned into the policies elites see fit. As Pablo Solon the former UNFCCC climate negotiator for Bolivia and prominent voice in the climate justice movement noted, leaders at the 2014 UN Climate Summit were not significantly influenced by the People’s Climate March, failing to make strong emissions reductions or financing commitments. Instead, they strengthened the role of carbon markets. As he put it, “A march that calls for ‘climate action’ without clearly saying what that action should be can be manipulated or used to promote wrong actions.”¹⁸⁶ (As an example of clearer communication of

from the meeting it was supposed to influence—and dumped out on empty blocks along the Hudson River west of mid-town. With no closing rally to unify the protestors, the march ended with an incoherent whimper, as thousands of atomized individuals scattered back to their subways, cars, and digitally wired but politically disconnected lives. In truth, the People’s Climate March was little more than an orgy of democratic emotion, an activist-themed street fair, a real-world analogue to Twitter hashtag campaigns, something that gives you a nice feeling, says you belong to a certain group, and is completely divorced from actual legislation and governance. Given the march’s tremendous built-in weaknesses, the best we might have hoped for is that it accomplished nothing. What’s more likely though is that it siphoned off organizing energy that could have been more useful elsewhere, made a public display of climate activism’s political impotence, and soothed hundreds of thousands of people into a false sense of hope.” Roy Scranton, “Roy Scranton: Learning to Die in the Anthropocene-Reflections on the End of Civilization,” YouTube video, 1:19:14, posted on November 2015 by “Ed Mays,” <https://www.youtube.com/watch?v=N0yUX12ZoTA>.

¹⁸⁵ One can see the danger of all of this in the 100% Possible March, which centered foremost on a demand for a rapid switch to renewable energy, which policymakers can take steps to address without ushering in system change (see chapter 5).

¹⁸⁶ Pablo Solon, “How Did Leaders Respond to the People’s Climate March?,” September 26, 2014, *Focus on the Global South*, <http://focusweb.org/content/how-did-leaders-respond-people-s-climate-march>. He writes further of climate marches, “Our main goal in strengthening marches like the one on September 21st is not to target the UN climate negotiations, but to build a movement that

goals, Solon points instead to a list of 10 demands endorsed by a group of more than 330 organizations.¹⁸⁷) Klein observes this danger as well, and reasserts her own sense of what that march was about:

Right now, after the People’s Climate March in New York, there is nothing to prevent a slick green NGO from attempting to harness all that power in the streets, meeting behind closed doors with politicians, and saying, “Well, what this movement wants is “fee and dividend” [another term for a revenue-neutral carbon tax]. Is it? Did anyone ask? The march was about more than just climate action—it was about climate justice. One of the most noteworthy aspects of the march was its racial and economic diversity. And a lot of what was driving that was the hope of climate action representing a real investment in some deeply neglected communities and the possibility of jobs and infrastructure. If you give all the money back from a carbon tax, you no longer have any left to invest in these neglected frontline communities.¹⁸⁸

The ongoing problem is that friction will remain highest for unspecified demands for action and fall off as the demands become more specific and begin to fall outside of the logic of the current (neo)liberal order. The friction that Klein’s hypothetical “slick green NGO” could gain for a revenue neutral carbon tax is much higher than that for the kinds of progressive changes and economic planning that the more radical parts of the movement have been calling for.

While their ability to affect political decision-making in the immediate term is perhaps then limited, climate marches might have a longer-term and different impact on climate justice. They can express and celebrate ambitious and just—even emancipatory—alternatives long incubating among progressive civil society groups, and not only spread and normalize these alternatives within the broader climate

is strong enough to challenge and change the capitalist system. The main lesson from this week is that we need to make even stronger and more permanent mobilizations with much more clear messages targeting the main polluters, which are the big corporations.” This would seem to indicate that climate marches are then not, for Solon, the means to demand climate justice from governing, but only of building a movement “that is strong enough to challenge and change the capitalist system,” an appeal that as a way forward will need further elaboration.

¹⁸⁷ “Mobilize and organize to Stop and Prevent Planet Fever!,” *Climate Space*, September 16, 2014, <https://climatespace2013.wordpress.com/2014/09/16/mobilize-and-organize-to-stop-and-prevent-planet-fever/>

¹⁸⁸ Naomi Klein, “Climate: The Crisis and the Movement,” *Great Transition*, December 2014, <http://www.greattransition.org/publication/climate-the-crisis-and-the-movement>.

movement, but also gradually introduce them into the public sphere so that ideas that were once marginal might someday, somehow, be made mainstream.¹⁸⁹ This is an idea I will leave for now, but return to in chapter 6, where I discuss a third front in the struggle for climate justice that entails the search for a more just society where these ideas can take root.

4. Blockadia and Divestment: Confronting the Fossil Fuel Enemy

A look across the immediate post-Copenhagen petro-political landscape was enough to fill anyone concerned about climate change with dread. At the precise moment that the world needed to rapidly turn away from fossil fuels, it had committed to the worst, most extreme sources of them, and in the absence of a strong and binding climate agreement. The consequences would not take long to show. Most spectacular was the blowout of the BP Deepwater Horizon well in 2010. Coal-burning covered China's major cities in toxic haze. Fracking projects left behind poisoned wastewater and caused severe methane leaks that undid the emissions reductions gains that might otherwise have come from switching from coal to natural gas.¹⁹⁰ The tar sands carved out and ripped away Alberta's boreal forests and left open mining pits and tailings ponds whose contents leaked and seeped and spilled into waterways. Nearby Indigenous communities saw traditional hunting grounds made inaccessible or polluted. In Fort Chipewyan, an Indigenous community downstream from the tar sands projects, rare forms of cancer

¹⁸⁹ Thanks to Dr. Ellie Perkins for pointing out in her comments on my chapter that, by changing what is understood to be possible, big ideas like the kind marches put forth can influence the kind of long-term social changes that happen. Naomi Klein described something perhaps similar when she noted "there would be no Bernie moment without the Fight for 15, Keystone XL, the movement against fracking, Black Lives Matter, the immigrant rights movement—all of it, right?" (She also includes the Occupy movement later in the speech.) The above is from Naomi Klein's remarks at the People's Summit in Chicago available at "Naomi Klein: There Would Be No Bernie Movement Without #FightFor15, Keystone XL & #BlackLivesMatter," *Democracy Now*, June 20, 2016, http://www.democracynow.org/2016/6/20/naomi_klein_there_would_be_no

¹⁹⁰ The documentary *Gasland* by director Josh Fox helped draw popular attention to the impacts of fracking.

appeared.¹⁹¹ These processes would impact so many of the frontline communities who would eventually lead the climate marches. All the while, the carbon content of the atmosphere rose. Strategies were therefore needed to, as the movement puts it, “Keep fossil fuels in the ground.”

Blockadia. A movement grew rapidly all over the world to take on extractive projects using a variety of direct action techniques. The phenomena became widespread enough to warrant a name, *Blockadia*, which Klein describes in the following way:

Blockadia is not a specific location on a map, but rather a roving transnational conflict zone that is cropping up with increasing frequency and intensity wherever extractive projects are attempting to dig and drill, whether for open-pit mines, or gas fracking, or tar sands oil pipelines. What is clear is that fighting a giant extractive industry on your own can seem impossible, especially in a remote, sparsely populated location. But being part of a continent-wide, even global, movement that has the industry surrounded is a very different story. Blockadia is turning the tables, insisting that it is up to industry to prove that its methods are safe – and in the era of extreme energy that is something that simply cannot be done.¹⁹²

As she put it, “The rise of Blockadia is, in many ways, simply the flip side of the carbon boom.”

In Canada, blockadia is fervent.¹⁹³ Indigenous land defenders stood on the frontlines of the most important struggles against fossil fuel projects. In 2010, 61

¹⁹¹ For more, see the 3-part story on the DeSmog blog starting with Carol Linnitt, “The Oilsands Cancer Story Part 1: John O’Connor and the Dawn of a New Oilsands Era,” Desmog Canada, July 26, 2014, <http://www.desmog.ca/2014/07/26/oilsands-cancer-story-1-john-oconnor-dawn-new-oilsands-era>

¹⁹² Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (Alfred A. Knopf, 2014), 294-295.

¹⁹³ Just as it is in the US. In late summer 2016, the Standing Rock Sioux Tribe’s resistance against the Dakota Access pipeline reached a fevered pitch as the pipeline company bulldozed ancestral graves and attacked protestors with dogs (see “FULL Exclusive Report: Dakota Access Pipeline Co. Attacks Native Americans with Dogs & Pepper Spray,” *Democracy Now*, September 6, 2016, http://www.democracynow.org/2016/9/6/full_exclusive_report_dakota_access_pipeline). Corporate media largely ignored the incidents (see Jim Naureckas, “Dakota Access Blackout Continues on ABC, NBC News,” *FAIR*, September 22, 2016, <http://fair.org/home/dakota-access-blackout-continues-on-abc-nbc-news/>); #IndianWinter, “Standing Rock: the story of a heroic resistance,” *Roar*, November 19, 2016, <https://roarmag.org/essays/standing-rock-no-dapl->

First Nations in B.C. turned to ancestral law and made the Save the Fraser Declaration to block tar sands pipelines. That same year, the Unist'ot'en resistance camp started building on unceded territory in northern B.C. directly in the path of Enbridge's Northern Gateway tar sands pipeline and Chevron's Pacific Trail pipeline for fracked natural gas. In Alberta, the Beaver Lake Cree Nation engaged in a legal fight against both the Canadian and Albertan governments to stop tar sands expansion.¹⁹⁴ In New Brunswick, members of the Elsipogtog Mi'kmaq First Nation withstood RCMP attacks on their peaceful blockade of fracking projects on unceded territory.

Blockadia has vigorously contested every one of the pipelines seeking to bring Alberta tar sands to the global market. In central and eastern Canada, that has involved opposition to TransCanada's Energy East and Enbridge's Line 9. In British Columbia, it was resistance to Kinder Morgan's Trans Mountain pipeline and (as mentioned above) Enbridge's Northern Gateway. Though there is a constant stream of new developments,¹⁹⁵ its highest profile political victory to date is probably in pressing President Obama to veto TransCanada's Keystone XL pipeline, which would have brought tar sands fuel from Alberta down to the Gulf of Mexico. The victory came after several years of widespread campaigns that galvanized the climate movement like nothing else before it. As a *Vox* article noted in the wake of Obama's veto decision, "The kind of movement that rose up around Keystone is not something you can plan or schedule. It's as much art, or, hell, magic, as science."¹⁹⁶

protests/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+roarmag+%28ROAR+Magazine%29. Alleen Brown, "As Construction Near Standing Rock Restarts, Pipeline Fights Flare Across the U.S.," *The Intercept*, February 19, 2017, <https://theintercept.com/2017/02/19/as-construction-near-standing-rock-restarts-pipeline-fights-flare-across-the-u-s/>

¹⁹⁴ "Tar Sands Trial: Beaver Lake Cree vs Alberta and Canada," *RAVEN*, accessed March 13, 2016, <http://raventrust.com/tar-sands-trial/>

¹⁹⁵ In fall 2016, for instance, climate activists undertook a coordinated action using manual shut-off valves to stop tar sands from flowing through pipelines in 4 US states. "Climate Direct Action: Activists Halt Flow of Tar Sands Oil by Shutting Off Valves of Five Pipelines," *Democracy Now*, October 12, 2016, http://www.democracynow.org/2016/10/12/climate_direct_action_activists_halt_flow.

¹⁹⁶ David Roberts, "What critics of the Keystone campaign misunderstand about climate activism," *Vox*, November 8, 2015, <http://www.vox.com/2015/11/8/9690654/keystone-climate-activism>

(That victory, however, was setback by President Donald Trump's decision to approve Keystone XL in January 2016.)

Blockadia's actions reveal a sense of climate justice in several ways. First, in asserting moral reasons for actions that challenge the ability of the fossil fuel industry to freely follow its institutional logic and expand its frontiers, blockadia identifies and condemns a realm of economic activity as immoral. A large part of the fight against Keystone in particular rested on characterizing Alberta tar sands projects as threats to long-term human survival (Bill McKibben evocatively called the pipeline the "fuse to the biggest carbon bomb on the continent"; prominent climatologist James Hansen insisted that adding tar sands to the global energy mix would mean "game over" for the climate¹⁹⁷). For TransCanada's shareholders to profit, the world would have to be made unlivable. Blockadia thus presents a grassroots democratic challenge to what should be allowed to occur in the market, prioritizing moral imperatives over market imperatives of growth and profit or state imperatives of "energy independence."

Second, through Blockadia's various land-based struggles, climate change could no longer be seen as an abstract problem of atmospheric pollutants. Its struggles became grounded in the realities of place and extraction, in the unjust legacies of colonial history. It ties actions together with a deep recognition of the importance of local environments for human wellbeing, and a democratic impulse to have control over their preservation. Klein notes that Blockadia's battles have been motivated most immediately not by climate but by concerns about water, and describes its defining feature as a "ferocious love," which occurs "[w]hen what is being fought for is an identity, a culture, a beloved place that people are determined

¹⁹⁷ Bill McKibben, "The Keystone Pipeline Revolt: Why Mass Arrests are Just the Beginning," *Rolling Stone*, September 28, 2011, <http://www.rollingstone.com/politics/news/the-keystone-pipeline-revolt-why-mass-arrests-are-just-the-beginning-20110928>; James Hansen, Silence is Deadly, June 3, 2011, http://www.columbia.edu/~jeh1/mailings/2011/20110603_SilenceIsDeadly.pdf; James Hansen, "Game Over for the Climate," *New York Times*, May 9, 2012, <http://www.nytimes.com/2012/05/10/opinion/game-over-for-the-climate.html>

to pass on to their grandchildren, and that their ancestors may have paid for with great sacrifice.”¹⁹⁸

Blockadia also binds climate action to struggles for Indigenous rights. In finding common cause with frontline Indigenous communities seeking to prevent the environmental degradation associated with extraction that turns their homelands into “sacrifice zones,” promoting climate justice comes to require a deep and real allyship with Indigenous struggles for sovereignty. In many cases, for example Enbridge’s Northern Gateway pipeline, successful termination of the pipeline project can be won through government recognition of Indigenous land rights.

Similarly, blockadia recently saw climate action linking up with demands for environmental justice. In summer 2016, the Black Lives Matter movement temporarily shut down London City airport in protest of how communities of colour in London experience the worst forms of air pollution and how people of colour throughout the global south experience the worst effects of climate change.¹⁹⁹

These are very much appeals for accountability—to treaty obligations, to human rights, to international commitments (like the United Nations Declaration on the Rights of Indigenous Peoples or the UNFCCC), to democratic demands. Blockadia cannot on its own every single one of the countless fossil fuel projects in the world—there are simply too many of them across the world to blockade over long periods²⁰⁰—but it can draw attention to the most extreme of them, and in doing so condemn the rest; governments must now follow blockadia’s lead. Blockadia has

¹⁹⁸ Klein, *This Changes Everything*, 342.

¹⁹⁹ See, Alexandra Wanjiku Kelbert “Climate change is a racist crisis: that’s why Black Lives Matter closed an airport,” *Guardian*, September 6, 2016, <https://www.theguardian.com/commentisfree/2016/sep/06/climate-change-racist-crisis-london-city-airport-black-lives-matter>

²⁰⁰ As one prominent climate activist put it, “In 2012, while playing a small part supporting the Quebec movement against fracking, I learned an important lesson about fracking: It’s next to impossible to fight fracking campaigns one company or project at a time. By the time you’ve stopped one fracking well, a hundred more have gone up. Knowing this, the only way to stop fracking is often to force a government to give up or at least back off on a plan to frack an entire gas deposit.”

See Cam Fenton, “Why the climate movement needs a reboot,” *Waging Nonviolence*, January 28, 2016, <http://wagingnonviolence.org/feature/why-the-climate-movement-needs-a-reboot/>

needed to gain friction with the existing system for its appeals to accountability. It attempts to do so in a number of ways. With the US legislative branch of government in the hands of Republicans during the Obama presidency, the movement pressured the US executive branch to use its powers to veto the Keystone XL pipeline. Anti-Keystone XL protests and civil disobedience actions at the White House (the first in September 2011 when 10,000 protestors surrounded the building, another in March 2014) sought to challenge the integrity of President Obama, who had campaigned on climate issues. In Canada, blockadia activists have appealed to the regulatory functions of the National Energy Board.²⁰¹ In fall of 2016, 99 young activists were arrested as part of a demonstration on Parliament Hill (“Climate 101”) pressuring the Trudeau government to reject Kinder Morgan’s TransMountain tar sands pipeline to the west coast.²⁰² (The Trudeau government ignored them and approved that pipeline as well as an additional one in late November 2016.²⁰³)

One of the most innovative tactics to gain friction has come through legal defenses for blockadia activists facing criminal charges. In having turned the fight against expanded fossil fuel extraction into a fight about survival, blockadia activists have begun marshaling a powerful legal defense: necessity.²⁰⁴ The necessity defense has appeared in a number of instances and variations²⁰⁵ (and not all for just

²⁰¹ In late summer 2016, activists counted a victory in the NEB’s decision to shut down hearings on the Energy East pipeline following major protest amid the exposure of a conflict of interest among its commissioners. Ethan Cox, “NEB indefinitely suspends Energy East hearings in Montreal,” *Ricochet*, August 29, 2016, <https://ricochet.media/en/1356/montreal-neb-hearings-postponed-after-all-hell-breaks-loose>

²⁰² Ethan Cox, “99 arrests in Ottawa as students confront Trudeau over pipelines,” *Ricochet*, October 24, 2016, <https://ricochet.media/en/1485/99-arrests-in-ottawa-as-students-confront-trudeau-over-pipelines>

²⁰³ John Paul Tasker, “Trudeau cabinet approves Trans Mountain, Line 3 pipelines, rejects Northern Gateway,” *CBC News*, November 29, 2016, <http://www.cbc.ca/news/politics/federal-cabinet-trudeau-pipeline-decisions-1.3872828>

²⁰⁴ “The Climate Necessity Defense: A Legal Tool for Climate Activists,” *Climate Disobedience Center*, <http://www.climatedisobedience.org/necessitydefense>

²⁰⁵ In May 2016, a coordinated set of mass civil disobedience actions called Break Free From Fossil Fuels took place across the world to attempt to close down major sites of fossil fuel extraction. Activists framed their actions as motivated by necessity and the need for some agents to fulfill the government’s public trust responsibilities. (See, Jeremy Brecher, “A new wave of climate insurgents

Blockadia actions²⁰⁶), but at its core it insists that climate activists disrupting fossil fuel infrastructure are motivated by a failure of governments to take steps to protect the wellbeing of the population. If this line of defense holds and sets legal precedents, it could give blockadia activists much freer license to directly disrupt fossil fuel projects, pressuring governments to take up policies to encourage alternative, cleaner energy sources.

Divestment. In a landmark 2012 *Rolling Stone* essay, Bill McKibben observed that the mainstream environmental movement had largely failed to generate responses to climate change at a scale anything like what was needed due to an analysis that was extremely nebulous in its identification of the source of the problem, one that led to addressing climate change through individual lifestyle solutions centered around green purchasing or lobbying governments for carbon pricing.²⁰⁷ That was never going to be enough, particularly given the role fossil fuels play in sustaining current western lifestyles; all of us are implicated. Here, McKibben's assessment

defines itself as law-enforcers," *Waging Nonviolence*, February 29, 2016,

[http://wagingnonviolence.org/feature/break-free-from-fossil-fuels-public-trust-domain/.](http://wagingnonviolence.org/feature/break-free-from-fossil-fuels-public-trust-domain/))

The necessity defense was also used in the legal trial of an activist facing a 30-year sentence for shutting off a tar sands pipeline valve as part of a coordinated action in solidarity with the Standing Rock Sioux-led struggles against the Dakota Access Pipeline with some apparent success. (See, Lauren McCauley, "Facing Decades in Prison, Climate Activist Says We Have 'No Choice But Direct Action'," *Common Dreams*, January 30, 2017, <http://www.commondreams.org/news/2017/01/30/facing-decades-prison-climate-activist-says-we-have-no-choice-direct-action>; Lauren McCauley, "Just in Time for Trump, Jury Says Defense of Planet Is No Crime," *Common Dreams*, February 2, 2017, <http://www.commondreams.org/news/2017/02/02/just-time-trump-jury-says-defense-planet-no-crime>)

²⁰⁶ It has also been used by Flood Wall Street activists who attempted to reignite the Occupy Wall Street occupations following the New York People's Climate March. See, Shawn Carrie, "How The Flood Wall Street Trial Changed The Game Of Policing" *Mintpress News*, March 27, 2015, <http://www.mintpressnews.com/how-the-flood-wall-street-trial-changed-the-game-of-policing/203768/>; Lindsay Abrams, "Flood Wall Street's bold legal defense: Climate change left us with no other choice," *Salon*, October 31, 2014, http://www.salon.com/2014/10/31/flood_wall_streets_bold_legal_defense_climate_change_left_us_with_no_other_choice/

²⁰⁷ Bill McKibben, "Global Warming's Terrifying New Math," *Rolling Stone*, July 19, 2012 <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719?page=3>. To be sure, divestment was already in the air. McKibben's article features a set of figures from a UK financial team using the carbon budget approach to show that fossil fuel companies were a part of an investment bubble waiting to burst. I focus on McKibben's piece because of its influence and because of the strength and completeness of the case it laid out.

dovetails with another critique of that older nebulous analysis: it failed to draw a link between climate change and *fossil fuels*, and linked instead—too abstractly—to *greenhouse gases*. Conceptually, the difference between these links is subtle, but important: we are all responsible for emitting greenhouse gases (albeit some more than others), but we are not all responsible for supplying—and seeking to keep us hooked on—fossil fuels.

That shift in focus was key. As McKibben put it, “movements require enemies” if they are to grow. Fossil fuel companies had for too long been spared from public censure by both that reigning analysis and by the seeming impossibility of a direct fight against such politically powerful opponents.²⁰⁸ And yet, McKibben argued, they are very much the enemy: their entire business model relies on the wholesale destruction of the climate. McKibben’s piece was one of the first mainstream media articles to popularize the carbon budget approach to understanding the climate crisis.²⁰⁹ The approach showed that if the world hoped for an 80% chance of holding temperature rise below 2°C (slightly worse odds than Russian roulette, he points out), humanity could emit only 565 gigatons of carbon dioxide (GtCO₂). Fossil fuel companies meanwhile held 2,795 GtCO₂ in their reserves, *five times more than the amount that can ever be used*, and, in accordance with the imperatives of an economic model valuing them for the sellable assets they hold, have every intention of seeing it burned—and seeking more. McKibben hoped that the figures revealed by the carbon budget would direct moral outrage towards the fossil fuel industry—which should now be seen as “a rogue industry, reckless

²⁰⁸ As he put it, “Environmentalists, understandably, have been loath to make the fossil-fuel industry their enemy, respecting its political power and hoping instead to convince these giants that they should turn away from coal, oil and gas and transform themselves more broadly into ‘energy companies’.”

²⁰⁹ George Monbiot published another mainstream media piece featuring the carbon budget in May 2009 (“How much fossil fuel can we burn?” *Guardian*, May 6, 2009, <http://www.theguardian.com/environment/georgemonbiot/2009/may/06/carbon-emissions>). It followed on the heels of two seminal *Nature* papers calculating the remaining carbon budget for a 2°C constraint on global temperature rise. (Meinshausen et al., “Greenhouse gas emission targets for limiting global warming to 2°C,” *Nature* 458 (2009); and Allen et al., “Warming caused by cumulative carbon emissions towards the trillionth tonne,” *Nature* 458 (2009)).

like no other force on Earth”—and looked to the history of struggle against South African apartheid for a model of action to wield that anger: divestment.

Fossil fuel divestment aims to pressure major institutions—universities, faith organizations, healthcare associations, government bodies, etc.—to remove financial investments in fossil fuel companies by simultaneously rallying two sets of motivations. The first is moral, and it is here where divestment contributes to the movement’s sense of climate justice. It asserts that there is something deeply wrong about benefiting from investments in corporations whose business models require destructive changes to the climate and impacts on frontline communities. (As the movement sums it up in its slogan, “If it’s wrong to wreck the planet, then it’s wrong to profit from that wreckage.”) By investing in the fossil fuel industry, individuals and institutions give tacit approval to its activities and preserve its “social license,” the consent society grants the industry to continue business as usual.

The immorality of continued investments in the industry extends beyond the figures revealed by the carbon budget. Divestment created a badly needed opportunity to discuss the nature of the industry. As with the blockadia movement to block pipelines, divestment activists also quickly found common cause with Indigenous groups fighting the development of fossil fuel infrastructure on their traditional territories, opening a second set of moral motivations; investments in fossil fuel companies were doubly wrong: the same industries wrecking the climate were harming Indigenous communities to do it.

Similar to blockadia, one of divestment’s contributions to climate justice is to demarcate morally legitimate from morally illegitimate economic activity in a time of climate change. Each divestment commitment simultaneously identifies the fossil fuel industry as an enemy to continued survival on earth and leverages moral motivations to initiate a rupture with it. The logic behind it is straightforward: as commitments accumulate, divestment progressively strips away the social license of an entire sector of the global economy and presents it in the realm of public opinion as the rogue industry the math of the carbon budget reveals it to be. In the same way

that a panicked sell-off of stock signals *economically* toxic assets to the investment community, a cascading sell-off of fossil fuel investments for reasons of justice signals *morally* toxic assets to the larger society. With its social license in tatters, the industry becomes stigmatized. It can thereby be subjected to harsher political penalties, perhaps becoming isolated from the halls of power as the politicians whose electoral campaigns it sponsors become delegitimized, or finding itself subject to steeper carbon pricing, or having its profits seized as odious.²¹⁰ In these ways, fossil fuel divestment is a moral incursion into free-market capitalism.

The other set of motivations is economic, appealing to self-interest in the market, and it is in this way that divestment achieves friction. If the world takes action to preserve a habitable climate, fossil fuels become “stranded assets,” excess stock that must remain underground. For *just a better-than-even chance* of avoiding 2°C of warming, the world must keep 33% of oil reserves, 49% of natural gas reserves, and 82% of coal reserves in the ground.²¹¹ It raises the impending possibility of an economic “carbon bubble.” Since fossil fuel companies base their value on the quantity of sellable reserves they hold, they are dramatically overvalued, and become poor investments to the degree the world seeks to decarbonize. Fund managers could one day soon be required by law to divest in order to abide by legal fiduciary duties (and there are some recent signs that the divestment movement is gaining enough friction to make this a near-term reality²¹²).

²¹⁰ Klein, *This Changes Everything*, 355.

²¹¹ Christophe McGlade and Paul Ekins (2015), “The Geographical Distribution of Fossil Fuels Unused when Limiting Global Warming to 2°C,” *Nature* 517 (2015): 189-190. For an accessible summary, see Damian Carrington, “Leave fossil fuels buried to prevent climate change, study urges,” *Guardian*, January 7, 2015, <http://www.theguardian.com/environment/2015/jan/07/much-worlds-fossil-fuel-reserve-must-stay-buried-prevent-climate-change-study-says>.

²¹² Several divestment talks and workshops I have attended made the point that investment institutions have yet to be made, legally speaking, to take into consideration “systemic risks” like climate change. But there have been some developments that could change this (when, exactly, is anyone’s guess). Warnings about the financial risk of carbon-intensive assets have come from Mark Carney, governor of the Bank of England (Pilita Clark, “Mark Carney warns investors face ‘huge’ climate change losses,” *Financial Times*, September 29, 2015, <https://www.ft.com/content/622de3da-66e6-11e5-97d0-1456a776a4f5>). In 2016, the European Systemic Risk Board (a body

Though a few campaigns had already begun, the movement really began to pick up steam in fall of 2012. As Rhys Naylor, a fellow member of York University's divestment group Fossil Free York, put it to me in a conversation, divestment is "elegant": even those institutions whose logics do not respond to moral reasons for climate action must respond to economic reasons or else remain exposed to the economic consequences of continued investment in the fossil fuel industry. That elegance is responsible for some impressive victories. By November 2016, over 600 institutions, together commanding \$3.4 trillion, were divesting partially or fully from fossil fuels. This is a massive growth on the 181 institutions representing \$50 billion in assets who had divested by September 2014.²¹³ Among institutions that have divested are the Canadian Medical Association, the Guardian newspaper, and the Norwegian Sovereign Wealth Fund. So far, post-secondary institutions have shown themselves to be extremely reluctant to divest, making up only 13% of institutions that have committed to divest. In Canada, Concordia and the University of Ottawa have divested—and only partially. In the UK, matters have been made even worse by Conservative government policy threatening penalties to local

advising the European Central Bank) issued a report warning about the systemic risk fossil fuel stock now creates to the financial system (European Systemic Risk Board, *Too Late, Too Sudden: Transition to a Low-Carbon Economy and Systemic Risk*, Reports of the Advisory Scientific Committee (2016), available at https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf).

Perhaps most notably, in November 2016, a class-action lawsuit was filed on behalf of Exxon's shareholders due to the company's failure to disclose how climate change could negatively affect stock value making it "the world's first shareholder-led lawsuit over alleged inadequate disclosures of climate risk" ("Exxon faces climate disclosure lawsuit – from its own investors," *ClientEarth*, November 10, 2016, <http://www.clientearth.org/exxon-faces-climate-disclosure-lawsuit-investors/>; David Hasemyer, "Class-Action Lawsuit Adds to ExxonMobil's Climate Change Woes," *Inside Climate News*, November 21, 2016, <https://insideclimatenews.org/news/18112016/exxon-climate-change-research-oil-reserves-stranded-assets-lawsuit>).

In January 2017, shareholders introduced additional resolutions. See, David Hasemyer, "Another Climate Change Push Comes From Exxon Shareholders," *Inside Climate News*, January 11, 2017, <https://insideclimatenews.org/news/11012017/exxon-shareholders-climate-change-rex-tillerson>

²¹³ Arabella Advisors, *Measuring the Global Fossil Fuel Divestment Movement*, (2014), 1; Arabella Advisors, *Measuring the Growth of the Global Fossil Fuel Divestment and Clean Energy Investment Movement*, (2015); the latest on divestment commitments can be found at Go Fossil Free, "Divestment Commitments," <http://gofossilfree.org/commitments/>

authorities that pursue fossil fuel divestment.²¹⁴ As successful as divestment has been, more friction will be required.

5. Conclusion: Not Bound to Even Hear

Recall Anjali Appadurai speaking on behalf of the world’s youth standing before the UNFCCC country negotiators, castigating them and demanding they come to an ambitious climate agreement. In first reading about her speech, I envisioned a lone youth confronting an ocean of mostly unreceptive political elites. But watching the video of the event, one notices that much of the room was empty; representatives were not only *not* bound to act on demands from the grassroots—they were not bound to even be in the room to hear them.

The way governing elites are responding to climate change suggests something striking about the institutional logic of the political and economic system the climate movement is making demands of, a matter we turn to the next chapter to understand more fully. For now, let us observe how, for all the complex moral demands made by the climate movement, climate policy throughout the developed world has mostly *flattened* to choosing from among a set of carbon-pricing mechanisms. As we discuss in that next chapter, carbon pricing—carbon taxes, emissions trading, and regulations—aims to raise the price of fossil fuels and shift demand for them to renewables, and is the central policy instrument that the liberal order deploys to take action on climate change.

Movement action gains the most friction for demands where they are most easily absorbed into the existing status quo of the liberal order, and they are most easily absorbed where they complement its logic. Climate marches and demonstrations assemble large numbers, complex demands for justice, and visions

²¹⁴ Arthur Neslen, “UK councils warned of ‘severe penalties’ of fossil fuel divestment,” *Guardian*, February 18, 2016, <http://www.theguardian.com/environment/2016/feb/18/uk-councils-warned-of-severe-penalties-of-fossil-fuel-divestment>. As noted in a previous footnote, “systemic risk” like climate change is not yet taken into account in *legal* fiduciary duties.

of a more just society, but gain friction by registering as reserves of raw volition to be shaped by political elites into “action,” a vague enough concept to be easily met through measures like moderate carbon pricing. Divestment and blockadia aim to disrupt the market freedoms of a destructive fossil fuel sector. And though they might be a democratic intervention in the economy, they act as a negation of a kind of economic *activity*, not an assertion of a different kind of economic *system*.

Divestment and blockadia clear openings for renewable energy systems, but do they do much to determine whether that energy will be used by a capitalist system bent on growth, or some alternative? There is another action being taken as well, not reviewed here in detail for reasons of space, in the form of legal challenges to governments for failing to address climate change.²¹⁵ But will the rulings coming out of them change the system’s logic, or insist, once again, that the system simply takes “actions,” policies to be determined by political and economic elites?

The movement may be stuck in the same way as *climate-justice-as-climate-ethics*. Recall that the latter required the UNFCCC system to be inhabited by entities (1) prioritizing climate change and (2) responsive to ethical reasoning. Similarly, the climate movement’s appeal to accountability rests on assumptions about the *pliability* of economic elites and political representatives, assumptions that there will be significant institutional *give*, in the face of mass-based democratic demands.

²¹⁵ A Netherlands court ordered the Dutch government to cut emissions by 25% by the end of 2020. (See, e.g. Arthur Neslen, “Dutch government ordered to cut carbon emissions in landmark ruling,” *Guardian*, June 24, 2015, <http://www.theguardian.com/environment/2015/jun/24/dutch-government-ordered-cut-carbon-emissions-landmark-ruling>). The Dutch government is now appealing the ruling. In the US, Our Children’s Trust, a group representing youth, is suing the government to take action on climate change. Interveners from the fossil fuel industry challenged the suit. A magistrate judge allowed the case to proceed to trial, but noted he was “troubled” by the rate of emissions reductions demanded by the suit (6% per year). The emissions reduction rate is anticipated to be the central issue at the trial (see Our Children’s Trust, “21 Kids Take on the Feds and Big Oil in Historic Climate Lawsuit,” *EcoWatch*, March 10, 2016, <https://ecowatch.com/2016/03/10/climate-lawsuit-21-kids/>; Samantha Page, “Sorry, Feds: Kids Can Sue Over Climate Negligence, Judge Says,” *Climate Progress*, April 10, 2016, <http://thinkprogress.org/climate/2016/04/10/3768092/climate-trust-suit-moves-forward/>; James Hansen et al., “Young People’s Burden: Requirement of Negative CO2 Emissions,” *Earth System Dynamics* (Discussion paper) (2016) doi:10.5194/esd-2016-42).

All of this leaves the climate movement in an interesting moment. For now, a series of shared causes, early steps essential to any effective popular response, stitches together moderate liberal-progressive and radical elements of the northern climate movement: blocking the extraction of and the construction or repurposing of new infrastructure; divestment from fossil fuel companies; demands for renewable energy. But there could be seams that could begin to come apart before long (something that may be occurring already as seen in the 2016 Washington State vote over a carbon tax²¹⁶) as governments commit to modest climate policies and instruments that might mesh with the demands of the more moderate stream of the climate movement, but ignore the demands of that part of the movement seeking systemic change.

In 2004, one scholar wrote, "Climate justice needs to evolve from a parallel noise maker into a genuine pincer that cannot be ignored and into a strategic force that can have a direct impact."²¹⁷ Has the climate justice movement done this? Have

²¹⁶ In November 2016, Washington State held a ballot initiative (I-732) on a carbon tax proposed by grassroots climate group Carbon Washington, which would have been the first carbon tax in the US and the biggest in North America. But voters turned down the initiative, and one of the reasons was that the more radical stream of the climate movement rejected it (Naomi Klein actually spoke out against it). The reason was that the carbon tax was *revenue neutral*, meaning it would have failed to generate revenue to devote to the kinds of projects the more radical stream of the climate movement has been demanding, like public investment in initiatives that prioritize poor communities, communities of colour, non-profits, schools districts, etc.

See Naomi Klein, "The Carbon Tax on the Ballot in Washington State Is Not the Right Way to Deal With Global Warming," *Nation*, November 4, 2016, <https://www.thenation.com/article/the-carbon-tax-on-the-ballot-in-washington-state-is-not-the-right-way-to-deal-with-global-warming/>; David Roberts, "The left vs. a carbon tax," *Vox*, November 8, 2016, <http://www.vox.com/2016/10/18/13012394/i-732-carbon-tax-washington>; "Climate Policy Action," Alliance for Jobs and Clean Energy, (2016) http://jobs-clean-energy-wa.com/wp-content/uploads/2016/04/Alliance-Policy-Four-Pager_final.pdf; Rebecca Leber, "The most dramatic climate fight of the election is in Washington state," *Grist*, October 31, 2016, <https://grist.org/election-2016/washington-carbon-tax-732/>; Lisa Hymas, "Climate hawk vs. climate hawk: State carbon tax divides national environmental leaders," *Grist*, October 31, 2016, <https://grist.org/election-2016/james-hansen-vs-naomi-klein-state-carbon-tax-splits-national-climate-hawks/>; Lisa Hymas, "Washington state voters rejected a carbon-tax ballot initiative," *Grist*, November 9, 2016, <http://grist.org/briefly/washington-state-voters-have-rejected-a-carbon-tax-ballot-initiative/>

²¹⁷ Jethro Pettit, "Climate Justice: A New Social Movement for Atmospheric Rights," *IDS Bulletin* (Climate Change and Development special issue), 35 no. 3 (2004), 102–06: 104.

those of us in the climate justice movement done more than reframe the problem? To what degree are we like Anjali Appadurai, making demands in sites of contestation ruled by a political and economic institutional logic that barely flinches in response to them? In the next chapter, we take a closer look at this institutional logic.

IV. The End of History and the End of the World

1. *An Unanswered Challenge*

In 1992, Francis Fukuyama issued a kind of challenge: to imagine a better political and economic system than the one inhering in modern liberalism. As he put it

In our grandparents' time, many reasonable people could foresee a radiant socialist future in which private property and capitalism had been abolished, and in which politics itself was somehow overcome. Today, by contrast, we have trouble imagining a world that is radically better than our own, or a future that is not essentially democratic and capitalist. Within that framework, of course, many things could be improved...But we cannot picture to ourselves a world that is *essentially* different from the present one, and at the same time better.²¹⁸

Taking a dialectical view of history, Fukuyama believed that capitalism and liberal democracy terminated once and for all the pattern of successive contradictions and resolutions that had driven the progression of human societies towards a particular end: the “end of history,” in his famous phrase. That phrase became something of an easy target, a broad code meant to evoke the narrow minded and naïve ideological triumphalism emerging in the west with the fall of the Berlin Wall. (I cannot recall how often I have seen authors dismiss it with the flick of a wrist.) Even recently, sardonic turns of Fukuyama's phrase can be found in titles of books like Alan Badiou's *The Rebirth of History* (2012) and Seamus Milne's *Revenge of History: The Battle for the 21st Century* (2013), whose focus on the resurgence of radical political movements is meant as a kind of jab at *The End of History's* claims.

But I want to revisit *The End of History* with the climate crisis in mind, because, for all the critiques levelled at the book (and despite the sense that the world has moved on from it), its challenge ultimately remains unanswered—there is no apparent mass shift away from liberalism—and until it is answered, climate

²¹⁸ Francis Fukuyama, *The End of History and the Last Man* (New York, NY: Avon Books, 1992), 46.

responses will remain tightly constrained. Whether Fukuyama’s dialectic was correct—whether liberalism was indeed some inexorable result, whether history *had* to end up this way—I am not in a position to evaluate (and strongly doubt, despite recent arguments in this vein²¹⁹). What matters for the present discussion is the continuing and enduring dominance of liberalism today and what at least appears to be a widespread intuitive sense that the main thrust of Fukuyama’s argument is correct: that liberalism has brought humanity to its historical apex of freedom and prosperity and that it would be hard for most to envision or point with confidence to a viable alternative system that better resolves a variety of human needs, interests and conflicts originating in our nature.²²⁰

For better or worse, we are stuck for the moment with liberalism. And it may turn out to be for worse. By an accident of history, right around the time of the fall of the Soviet Union and the liberal triumphalism it triggered came a challenge threatening to undermine liberalism’s claims to superiority in managing human affairs. Around those same years that Fukuyama was working on *The End of History*, the seriousness of anthropogenic climate change began coming to light. A key moment was American climatologist James Hansen’s landmark testimonies before the US Senate in 1988 (“Global Warming Has Begun, Expert Tells Senate,” read the *New York Times* headline of the time) and 1989, the latter at the behest of then-senator Al Gore.²²¹ The Intergovernmental Panel on Climate Change (IPCC) also published its first assessment report in 1990, revealing for the first time the scientific consensus that human activity was playing a role in changing earth’s climate.

²¹⁹ See, e.g., Steven Pinker, *The Better Angels of Our Nature: Why Violence has Declined* (New York, NY: Penguin Books, 2011)

²²⁰ My thanks to Dr. Terry Maley for raising the point that uses of the term “human nature” are loaded and often problematic. I should clarify here that any use of the term (or derivatives like “our nature”) in this chapter does not come from any attempt on my part to make claims about what human nature is. Rather it is used to give a sense of the reasoning that occurs within liberal theory that sees a correlation between human progress and liberal institutional design due to the latter being based on a more sound understanding of human nature than offered by other political theories.

²²¹ Phillip Shabecoff, “Global Warming Has Begun, Expert Tells Senate,” *New York Times*, June 24, 1988, <http://www.nytimes.com/1988/06/24/us/global-warming-has-begun-expert-tells->

And so, just as we reached the End of History, we also began to see signs of the End of the World, and the coming of another world eerily and dangerously different. It is a world we might call “Eaarth” (a new name for our planet coined by Bill McKibben to suggest the Earth humanity once knew is now gone) or an era we might soon call the Anthropocene.²²² To be sure, our *planet* is not going anywhere, but the *world*—the longstanding human understanding and experience of that planet and its climate—is vanishing.

A dilemma thus presents itself: *Unless Fukuyama’s challenge can be answered—unless we realize something other than liberalism—then two possibilities remain: the policies responding to climate change will have to emerge from within the liberal tradition—something they have so far failed to do—or the world that human civilization has known will end.* And the liberal tradition desperately needs some new ideas. A very troubling aspect of the response to climate change so far engendered by liberal systems is the limited suite of climate policy responses themselves, which follow from a wide and longstanding recognition under this framework that the climate crisis cannot begin to be resolved until there is a correction to what Stern famously described as “the greatest market failure the world has ever seen”: the systemic underpricing of greenhouse gases.²²³ Climate change is here understood to be the result of a negative externality—the economic term describing market transactions that do not include costs to those outside the transaction—and the solution begins with internalizing it. There are several key measures proposed to internalize the cost of carbon: carbon taxes, emission caps with tradable permits (or “cap-and-trade”), and regulations like emissions,

²²² Bill McKibben, *Eaarth: Making a Life on a Tough New Planet* (Toronto: Alfred A. Knopf, 2010). In summer of 2016 earth scientists made a recommendation to the International Geological Congress that the Holocene be officially declared over and replaced by the Anthropocene, human-driven climate change being among the reasons (Damian Carrington, “The Anthropocene epoch: scientists declare dawn of human-influenced age,” *Guardian*, August 29, 2016, <https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth>).

²²³ Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press, 2007), xviii, 25-34.

efficiency, or building standards.²²⁴ Each of these measures presents a means of using the market, either directly or indirectly, to raise the price of using fossil fuels and, thereby, of steering society towards clean and renewable alternatives.²²⁵ Once there is a clear price for carbon and clear regulations, the power of the market can be wielded to decrease demand for fossil fuel energy while increasing demand for and innovation in low- or no-carbon energy technologies and infrastructure, incentivizing private actors to supply the appropriate goods. Pricing carbon offers the liberal framework what we might think of as a kind of “mechanical advantage,” a means of steering with relatively little political work a very broad and diverse range of (often powerful, often recalcitrant) actors towards a post-carbon economy. Moreover, because governments can select the policies as well as their timing, coverage, and intensity, it can control their impact on the economy, ensuring that they do not interfere with aggregate growth or overburden favoured domestic industries.

While it is the main thrust of climate policy, carbon pricing alone does not guarantee the necessarily massive scale-up of renewable technologies. Government technology policies that support the development and adoption of renewable technology will also be needed (e.g., subsidies for research and development or infrastructure; or feed-in tariffs that guarantee early adopters a high price for the energy they produce).

As there is a scientific consensus on climate change, what I have just described is a kind of “liberal consensus” on climate change, and there is an implied

²²⁴ Thomas L. Friedman, *Hot, Flat, and Crowded: Why We Need a Green Revolution and How It Can Renew America (Release 2.0: Updated and Expanded)* (Toronto: Douglas & McIntyre, 2009); Joseph E. Aldy, J.E. & Robert N. Stavins, “Using the Market to Address Climate Change: Insights from Theory & Experience,” *Daedalus*, 141 vol. 2 (2012).

²²⁵ The policies differ in their perceived acceptability to the electorate, likelihood of passing through political bodies, and their susceptibility to being manipulated. For example, to make them more politically acceptable, carbon taxes are sometimes proposed as revenue-neutral to avoid raising citizens’ tax burdens as in British Columbia. Emissions trading, meanwhile, carries accounting risks, particularly around the practice of offsetting. US President Barack Obama pursued a climate strategy through Environmental Protection Agency regulations (largely rescinded under President Donald Trump), which did not need to be passed through a Congress dominated by the climate change denying Republican Party.

sequence or causal chain to it: political representatives initiate carbon pricing alongside technology policies which together trigger technological innovation in the renewable energy sector, whose products can in turn outcompete carbon-intense sectors (their products now subject to carbon pricing), leading to a rapid switch to a carbon-free, capitalist economy. And not only is there a long list of thinkers identifying market mechanisms as the preeminent policy instrument to address climate change and preserve a prosperous society of liberal democracy and capitalism into the far future,²²⁶ but carbon pricing has now become the preeminent climate policy in the world. In 2015, the World Bank reported that 39 national jurisdictions and 23 subnational jurisdictions have implemented or are scheduled to soon implement carbon-pricing policies. Between 2012 and June 2015, the number of carbon pricing instruments jumped by 90%.²²⁷ In Canada, in fall 2016, the Trudeau Liberal government had recently announced Canada's climate policy—the first significant climate legislation since before the successive Conservative Harper governments of 2006-2015. Its major thrust is instituting a countrywide carbon-pricing framework.²²⁸

Unfortunately, the policies of this liberal consensus are not only limited, but also unambitious, maybe disastrously so. Under UNFCCC climate negotiations, the international community has what has been called a “two-headed” target for

²²⁶ In addition to the aforementioned works cited (i.e., by Nicholas Stern (in particular chapter 22 his *The Stern Review*), Thomas L. Friedman, and Joseph E. Aldy and Robert N. Stavins), one finds it in Jeffrey D. Sachs, *The Age of Sustainable Development* (New York, NY: Columbia University Press, 2015), 435-436; Lester R. Brown, *Plan B 4.0: Mobilizing to Save Civilization* (New York: W.W. Norton & Company, 2009), 243-249; Paul Hawken, Amory Lovins & L. Hunter Lovins, *Natural Capital: Creating the Next Industrial Revolution* (New York: Back Bay, 1999), 241-259; Gernot Wagner and Martin L. Weitzman, *Climate Shock: The Economic Consequences of a Hotter Planet* (Princeton, NJ: Princeton University Press, 2014); again in Nicholas Stern, *Why Are We Waiting? The Logic, Urgency, and Promise of Tackling Climate Change* (Cambridge, MA: The MIT Press, 2015), chapter 3; and more.

²²⁷ World Bank, *State and Trends of Carbon Pricing 2015*, (Washington, 2015), 20, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/09/21/090224b0830f0f31/2_0/Rendered/PDF/State0and0trends0of0carbon0pricing02015.pdf

²²⁸ Provinces may choose the form of carbon pricing or deepen and expand it where it is already in place. Carbon pricing must be in place by 2018 and of at least \$10 per tonne. Kathleen Harris, “Justin Trudeau gives provinces until 2018 to adopt carbon price plan,” *CBC News*, October 3, 2016, <http://www.cbc.ca/news/politics/canada-trudeau-climate-change-1.3788825>

limiting global average temperature increase compared to pre-industrial levels.²²⁹ Keeping temperatures below 1.5°C is sometimes referred to as its “aspirational” goal while 2°C is a kind of “guardrail,” the upper limit before which warming might be considered safe. But the adequacy of that guardrail target has long been questioned,²³⁰ and for good reason: the difference between the two goals “marks the difference between events at the upper limit of present-day natural variability and a new climate regime,” according to a recent climatological review.²³¹ Hopes for the 1.5°C goal now appear to be gone.²³² And as discussed in chapter 2, the emissions reductions pledges that states have been willing to put forth, to be realized by those market-based policies, blow well past the 2°C goal, reaching as high as 3.5°C by the end of the century.

It very much appears then that climate change arrived on the scene during the ascendancy of a system that is unable to respond to it. What accounts for the character of its too-weak solutions? These are, after all, not the only conceivable ways out of the crisis. Indeed, they have yet to prove equal to the challenge presented by the climate crisis, committing us to at least some degree of dangerous climate change, if not worse. They are an attempt to undertake a response to the climate crisis requiring as little change to modern lifestyles as possible (save for those earning their livelihoods in the fossil fuel industries). If successful, no

²²⁹ Carl-Friedrich Schleussner et al., “Differential climate impacts for policy-relevant limits to global warming: the case of 1.5 °C and 2 °C,” *Earth System Dynamics* 7 (2016): 327.

²³⁰ Even before the Copenhagen Summit back in 2009, where the 2°C target was for the first time affirmed at the international level in the Copenhagen Accord, that guardrail had been shown to be inadequate to avoid significant risk of deleterious climate change. See, K. Richardson et al., “Climate Change: Global Risks, Challenges & Decisions. Synthesis Report of the Copenhagen Climate Congress,” (University of Copenhagen, 2009), 12-16. A UNFCCC panel of experts wrote in 2015 that the concept of 2°C as a guardrail was inadequate and urged a reconceptualization of it as “a defence line that needs to be stringently defended, while less warming would be preferable.” UNFCCC, *Report on the structured expert dialogue on the 2013–2015 review* (2015), 18.

²³¹ Schleussner et al., “Differential climate impacts for policy-relevant limits to global warming”: 327.

²³² A 2016 paper in *Nature* concluded that “The window for limiting warming to below 1.5C with high probability and without temporarily exceeding that level already seems to have closed.” Rogelj et al., “Paris Agreement climate proposals need a boost to keep warming well below 2°C,” *Nature* 534 (2016): 631.

replacement of capitalism with some more ecologically friendly alternative—and no replacement of liberal democracy for something either more or less democratic, or less anthropocentric—should be necessary. The liberal climate change response is therefore not only about responding to climate change, but doing so in such a way as to admit no necessary change in the economic or political system, to preserve modern liberalism into perpetuity. In a way, it turns out Fukuyama was right: policymakers (and, as I've seen personally, even parts of the climate movement) are having trouble imagining a world that is particularly different.

In part 1 of this chapter, I take a closer look at the liberal system, identifying the core features that any liberal order seeks to establish and protect. Liberalism has accepted two major institutional systems—capitalism and liberal democracy—in order to realize its core ideals in the real world. In doing so, it had to take on some of their key elements, logics, and imperatives. In part 2 of this chapter, I then consider how these core features of liberalism establish a system of “filters” that allow only a narrow range of climate solutions through—which explains the character of climate solutions described above.

Looking at liberalism in this way is intended to allow a number of insights. First, we appreciate just how incredibly formidable of a system it is—how difficult it is to break out of—even in the face of an existential threat like climate change. Responding to the crisis will need to involve some kind of engagement with it. Second, looking at how liberalism constrains climate responses sets up the challenge of climate change and climate justice in terms of political philosophy and its search for a good society. It thereby opens the search for climate justice beyond one that accepts or takes for granted the current institutional arrangements and how they determine the conditions of people's pursuit of their good life. If the dominant concept of the good life and the institutional arrangement to create opportunities for it is blocking efforts to take on climate change, then it follows that there is a need for some alternative.

Third, we can begin to project a vision of what the world will look like if we respond to climate change through the suite of liberal policies that can fit through these filters. Is the world after the liberal climate response a just one? If not, should we not resist it or steer the response in different directions (chapter 5)? If the liberal order really is too formidable to challenge then we cannot answer climate change without working within liberalism's constraints, and that might mean that a far-reaching version of climate justice is simply impossible. If, on the other hand, the liberal complex possesses structural weaknesses then perhaps there is a chance that it can be broken apart and that we may begin to visualize a plan through which a far-reaching climate justice can be realized (chapter 5). These are important matters, complicating the possibilities for climate justice, and so I dedicate the rest of my dissertation to exploring them.

* * * *

But before getting started, it is worth pausing to address two additional matters. First, we should address other explanations for the current state of solutions and action on climate change. Second, we might ask why we should focus on liberalism rather than *neoliberalism*, which is such a dominant focus in contemporary critical scholarship.

Let us begin with alternative explanations for why climate policy is so far behind where it needs to be. A first suggests that fossil fuel interests have corrupted the political system in a number of ways. Propagated through right-wing think tanks funded by fossil fuel companies, the misinformation on climate science circulating in the media and through the Internet has caused confusion and skepticism about climate change among the public, thereby reducing popular support for action on the issue.²³³ There is no doubt that the campaigns orchestrated to spread

²³³ See, e.g., James Hoggan and Richard Littlemore, *Climate Cover-Up: The Crusade to Deny Global Warming* (Toronto: Greystone Books, 2009); Naomi Oreskes & Erik M. Conway. *Merchants of*

disinformation about the scientific consensus around anthropogenic climate change and to downplay the seriousness of global warming has had an effect.²³⁴ But even as the political currency of denialism fades in the mainstream (with the US Republican Party under the Trump administration forming a major exception), climate policy must still be enacted in an unwelcoming system. Simply eliminating misinformation will not provide the channels for democratic input or support for ambitious climate action. The same limited suite of solutions remains. Indeed, in the wake of COP21, several authors have independently referred to a new kind of climate denialism (a “Denial-Lite”²³⁵ or “denial minor”²³⁶). It is not that policymakers reject climate science, but that the climate policies they are willing to deploy (alongside their continued commitment to fossil fuel expansion) are so weak they are *tantamount* to denying the crisis.

A second explanation concerns unreconciled interests of developed and developing countries at climate negotiations stemming from the vast inequalities between them in the global system. Developing countries have historically resisted making deep emissions reductions while they pursue economic development. Developed countries, for their part, have resisted making emissions reductions for

Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming (New York: Bloomsbury Press, 2010); or the excellent website Skeptical Science (www.skepticalscience.com).

²³⁴ A severe example was the so-called “Climategate” (non-)scandal that occurred in 2009 just before the Copenhagen climate summit. Climate scientists at the University of East Anglia saw their emails hacked and dumped on the web. Right-wing news outlets and blogs cherry-picked and spun the material to suggest scientists were colluding to fabricate or exaggerate the reality and threat of global warming. Concern about global warming fell in the US following these events. Morgan Goodwin, “Climategate: An Autopsy,” *Desmog*, March 30, 2010, <http://www.desmogblog.com/climategate-autopsy>; Kate Sheppard, “Climategate: What Really Happened?” *Mother Jones*, April 21, 2011, <http://www.motherjones.com/environment/2011/04/history-of-climategate>; Kevin Grandia, “Debunked Conspiracy Climategate Five Years Later,” *Desmog*, November 19, 2014, <http://www.desmogblog.com/2014/11/19/climategate-five-years-later>

²³⁵ Cameron Fenton, “Trudeau’s approval of Kinder Morgan would be an act of climate denial,” *Ricochet*, November 18, 2016, <https://ricochet.media/en/1540/trudeaus-approval-of-kinder-morgan-would-be-an-act-of-climate-denial>

²³⁶ Martin Wolf, “Climate change and the risks of denying inconvenient truths,” *Financial Times*, November 1, 2016, <https://www.ft.com/content/3f707b3e-9f91-11e6-891e-abe238dee8e2>

fear of losing competitive advantage. But this does not satisfactorily explain the specific character of the solutions being discussed either.²³⁷

A final explanation suggests that people are psychologically or cognitively ill-suited or poorly evolved to responding in an anticipatory fashion to the climate crisis, particularly as it remained an abstract, somewhat distant threat.²³⁸ However, that would unfairly dismiss the enormous efforts of activists worldwide as discussed in the previous chapter who have been prepared to fight for action on climate change without needing to experience immediate and severe climate disruption. It also fails to account for what would happen in this system even if new climate communication strategies overcome our cognitive shortcomings and people begin to demand climate action from their governments. Would this system actually make good on those demands?

The second matter we should attend to is the focus on liberalism rather than neoliberalism, which has rightly attracted much criticism for the past few decades. Neoliberalism is a particularly virulent form of the complex of ideas about the makeup of a good society corresponding to liberalism, one that dispenses with those parts of liberalism that ease inequality's burdens and that actively concentrates economic wealth and power among elites.²³⁹ But it is the larger complex of which

²³⁷ For a look at the opposing positions of the global north and south on solutions to climate change, see J. Timmons Roberts and Bradley C. Parks, *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy* (Cambridge: The MIT Press, 2007).

²³⁸ See, e.g., George Marshall, *Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change*, (New York, NY: Bloomsbury, 2015); and Robert Jay Lifton, "The Climate Swerve," *New York Times*, August 23, 2014, <http://www.nytimes.com/2014/08/24/opinion/sunday/the-climate-swerve.html>.

²³⁹ David Harvey defines neoliberalism in the following way. "Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices. The state has to guarantee, for example, the quality and integrity of money. It must also set up those military, defence, police, and legal structures and functions required to secure private property rights and to guarantee, by force if need be, the proper functioning of markets. Furthermore, if markets do not exist (in areas such as land, water, education, health care, social security, or environmental pollution) then they must be created, by state action if necessary. But beyond these tasks the state should not venture. State interventions in markets (once created) must be kept to a bare minimum because,

neoliberalism is itself a variant that we should turn our attention towards, because if our analytical lens is restrained to the effects of neoliberalism on the climate response, other dimensions of the liberal system and their impacts are obscured—perpetual growth, perpetual extractivism, technological progress as human purpose, etc. To be sure, neoliberalism makes a just climate response even more difficult than under, say, social democracy. But from the point of view of a far-reaching climate justice, I believe that even a kinder form of liberalism retains many of the problems driving the crisis.

What I hope to show in what follows, then, is that the climate crisis is a *deep* problem of liberalism, one that includes but also goes beyond climate change denialism, fossil fuel industry corruption of democracy, the inability to reconcile Global North-South divisions, or free-market ideology—each already serious enough on its own. It is a problem rooted in liberalism’s “deep tissue,” in the way liberalism’s core ideal has been realized through its dominant institutional arrangements, and so I turn now to a critique of liberalism.

2. The Liberal Order

Like any complex political philosophy with a long history, liberalism is difficult to fully capture through definitions, and so before continuing I should be clear and transparent on my meaning of the term “liberalism” and its derivatives

according to the theory, the state cannot possibly possess enough information to second-guess market signals (prices) and because powerful interest groups will inevitably distort and bias state interventions (particularly in democracies) for their own benefit [...] In so far as neoliberalism values market exchange as ‘an ethic in itself, capable of acting as a guide to all human action, and substituting for all previously held ethical beliefs’, it emphasizes the significance of contractual relations in the marketplace. It holds that the social good will be maximized by maximizing the reach and frequency of market transactions, and it seeks to bring all human action into the domain of the market.” David Harvey, *A Brief History of Neoliberalism* (New York: Oxford University Press, 2005), 2,3.

(“liberal,” “liberal order”) in what follows.²⁴⁰ I begin by holding that the main current running through philosophical liberalism is the inviolability of each

²⁴⁰ A complete statement-by-statement system of citation for the description of liberalism below would be impossible here. The understanding of it that I present has been built up over years of readings, reflections, and realizations. Nevertheless, several key texts—some of them from within the liberal tradition, others deep critiques of liberalism—were important in developing the sense of liberalism that follows and selecting the features of it that I highlight. I identify them here, starting with works internal to liberalism. My main source (and interlocutor for this chapter) from within the liberal tradition is Fukuyama’s *End of History*, which lays bare many of liberalism’s key assumptions going into the present globalization era. Fukuyama is an exception to an interesting tendency I observed: major (or “classic”) works by authors feeling the need to expound on or defend liberalism’s ideals and their reliance on capitalism and liberal democracy to achieve it seem to become rare in the late 20th century and beyond, particularly with the fall of Communism and full ascent of neoliberalism, at which point the concern seems to be not with defending liberal ideas in and of themselves, but with justifying their spread throughout the world through (neoliberal) globalization (see, e.g., Martin Wolf, *Why Globalization Works* (London: Yale University Press, 2004) and Thomas L. Friedman, *The World Is Flat 3.0: A Brief History of the Twenty-first Century* (New York, NY: Picador, 2007)). I therefore turned to earlier works to see liberalism’s assumptions stated explicitly. On liberalism’s right wing were F.A. Hayek (*The Constitution of Liberty*, ed. Ronald Hamowy (Chicago, IL: University of Chicago Press, [1960], 2011), chapters 1-3) and Milton Friedman (*Capitalism and Freedom*, Chicago, IL: University of Chicago Press, 1982, particularly chapters 1 and 10; and *Free to Choose: A Personal Statement*, New York, NY: Harcourt, 1980, particularly chapter 1). John Rawls’ *A Theory of Justice (Revised Edition)* (Cambridge, MA: Belknap, 1999), with its strong redistributive principles, gave a sense of liberalism’s left wing (though from a political philosophical perspective). Finally, Marcel Wissenburg’s *Green Liberalism: The Free and the Green Society* provided a deep inquiry into whether and how ecological imperatives could be reconciled with liberalism’s core belief in the inviolability of people’s plans of life.

As will become apparent, my position on liberalism is a very critical one and so works critical of liberalism were the main influence here. Noam Chomsky’s *Government in the Future* (AK Press, 1970) was particularly formative. In it, Chomsky describes the ideal of classical liberalism and its concerns with expanding the realm of human freedom, creative endeavour, and inquiry by sharply delimiting the powers of the state, and how that ideal became warped under state capitalism whose advocates came to see themselves (incorrectly, for Chomsky) as the inheritors of classical liberalism’s ideal. Also formative were the works of C.B. Macpherson (*The Political Theory of Possessive Individualism: Hobbes to Locke*, Don Mills, Canada: Oxford University Press, [1962] 2011; *Democratic Theory: Essays in Retrieval*, Don Mills, Canada: Oxford University Press, [1973] 2012; and *The Life and Times of Liberal Democracy*, Oxford University Press, [1977] 2012;). No quick summary would do them justice, but each was concerned with exposing how foundational theories of liberalism relied on a concept of humans as being truly free only in market societies, promoting a society of individualists and consumers, and placing constraints on the kind of democratic models that were possible. (These ideas are explored further in his *The Rise and Fall of Economic Justice and Other Essays, Reissue* (Don Mills, Canada: Oxford University Press, 2013), David Held’s *Models of Democracy* (Stanford, CA: Stanford University Press, 2006) and John S. Dryzek and Patrick Dunleavy’s *Theories of the Democratic State* (Palgrave Macmillan, 2009) featured important chapters on the “nuts and bolts” of liberalism and liberal democracy, but their works also show liberal democracy’s limitations by considering alternative models that could hold potential for greater citizen representation or participation. Robyn Eckersley’s *The Green State: Rethinking Democracy and Sovereignty* (Cambridge, MA: MIT Press, 2004) is another rich work difficult to adequately summarize, but a main influence on my thought was in its attempt to show how the logics of capitalism and the liberal democratic state

individual's plan of life or good life.²⁴¹ Let us call that liberalism's core ethic, the ethic around which liberal systems must arrange institutions. No one may decide for any other what their plan of life should be or block them from pursuing the plan of life that they choose so long as it does not interfere with others' pursuit of their own. The liberal individual is therefore considered to be autonomous and *free*. No one's plan of life can be said to be more important than anyone else's because no objective means exist to determine so, and all have the same freedom to pursue their plans. The liberal individual is also therefore *equal* to all others. Liberalism's promise is to offer the social conditions that will allow free and equal individuals the opportunities to create and pursue their unique plans of life, their own good, to *self-actualize*. Important currents within liberalism that are sometimes (incorrectly, I believe) assumed to form its core ethic—for example concerns with religious tolerance, with social stability, or with limitations of the power of the state—are better understood as corollaries of these concerns about each individual's free and equal pursuit of the good life.

I find the rightness of that core liberal ethic hard to object to. As a purpose around which to design a good society it has none of the problems of autocratic or authoritarian regimes, where it is necessary to find a justification for why people's lives are to be controlled by some unaccountable authority. Similarly, it is free from the troubles of communitarian/republican arrangements where individuals' good life is determined for them and steered by state policy or community pressure. Liberalism furthermore shares its core ethic with other political philosophies, for example the libertarian variants of socialism.

place sharp limits to how strenuously environmental concerns may be addressed. Clive Hamilton's *Growth Fetish* (London: Pluto Press, 2004) and *Requiem for a Species: Why we Resist the Truth about Climate Change* (Washington, DC: Earthscan, 2010) critically informed my views on climate change, liberalism, and economic growth. If there is a common thread through these disparate works, it is in their critique which follows from a deep engagement with the tension between the highest goals and ideals liberalism seeks to or claims to be able to achieve on the one hand and the fate of these ideals under capitalism and liberal democracy on the other.

²⁴¹ I am drawing here especially on chapter 1 of Marcel Wissenburg, *Green Liberalism: The Free and the Green Society* (UCL Press, 1998).

In short, that core ethic is not in itself a good basis for a critique, and certainly not one that allows us to see how liberalism constrains the response to climate change; it is not at all clear from the outset why a political philosophy like liberalism should block action on climate change.

Where much stronger critiques of liberalism begin is with its more distinguishing and defining features: (a) the economic and political institutions strongly assumed to be required to realize the liberal ethic in the real world—namely capitalism and liberal representative democracy; (b) the requirement of economic growth that follows from the adoption of capitalism; and (c) the way liberalism’s wide array of (often antithetical) elements are selected, emphasized, and combined in order to provide people with the opportunity to seek their good life. The problem is that in critiquing or seeking to change features assumed to be essential parts of liberalism, we risk tampering with the realization of its important core ethic: freedom and equality for individuals.

As we will see in Part 2 below, it is these features of liberalism that combine in such a way as to filter out all but the select few responses to climate change described above. But before we get there we should look at these features more closely. If at any point in what follows it appears that I am uncritically accepting liberalism, know that is not my intent. In focusing presently on liberalism’s characteristic features, I withhold a more sustained critique (which begins with Part 2 of this chapter and continues into the next), and instead attempt to present a broad description that a committed liberal might agree with. The point, again, is to appreciate just how formidable that liberal complex is, how difficult its stronghold is to depart from—to show the nature of the beast that those of us seeking really ambitious action on climate change are up against.

2.1 The Economic and Political Institutions of Liberalism

Liberalism traditionally stands on two institutional pillars, capitalism and liberal representative democracy. Some caution is required here, however. Political philosophers have insisted that liberalism may be understood separately from its institutions.²⁴² Yet because these institutions are widely seen to promote that core liberal ethic, liberalism is marked by a strong institutional inertia, a longstanding distrust of other institutional arrangements. It is therefore more useful to understand capitalism and liberal democracy as being the *strongly preferred* institutions of liberalism; they define a historical and contemporary really existing liberalism, but perhaps not liberalism for all time. In what follows, I seek to explain liberalism's preference for these institutions by describing briefly what it is that liberal democracy and capitalism do for liberalism, the "assurances" that they offer, which in some cases have required certain innovations in how those institutions operate.

For its part, liberal democracy relies on the deployment of a strong state to protect a series of rights deemed vital to the liberal core ethic: the right to some means of formal political participation, freedom of expression and opinion, freedom of religion and association, freedom of access to education and information, economic freedoms (both consumer freedoms and freedoms of trade and enterprise), and, of course, the freedom to create, pursue, and live out plans of life. That strong state is however one with limits. For one, it is governed through and accountable to the will and consent of the *demos* through regular elections.

²⁴² Marcel Wissenburg reminds us that "we should not make the mistake of equating liberalism with liberal democracy or the free market" (*Green Liberalism*, 219); Alan Ryan's definition of liberalism is agnostic about its institutions: "liberalism is best understood as a theory of the good life for individuals that is linked to a theory of the social, economic, and political arrangements within which they may lead that life" (*The Making of Modern Liberalism* (Princeton University Press, 2012), 35). C.B. Macpherson suggests "that a liberal position need not be taken to depend forever on an acceptance of capitalist assumptions, although historically it has been so taken" (*The Life and Times of Liberal Democracy*, 2). J.S. Mill believed capitalist growth had only a temporary usefulness to liberalism (see my discussion in chapter 5).

Constitutions, meanwhile, shield civil rights and liberties understood to be fundamental to the liberal ethic from what even a majority may decide upon. Through this latter innovation, democracy could assure liberalism that majorities were no threat to its core ethic; it put the “liberal” in “liberal democracy.”

Capitalism, meanwhile, assured liberalism a way of allocating to individuals the means, goods, or services necessary to freely pursue their good life. Under capitalism, individuals can enter the market as they require to sell and purchase property, including property over their mental, affective, and physical labour. Producers produce, sellers sell, and buyers buy, all following only their own interest, all free of overbearing interference or coerced decree from centralized authority. In addition to market benefits, capitalism offers liberalism even more assurances through one of its central features: economic growth. Growth’s assurances to liberalism are sufficiently complex—from preventing revolution to fostering plurality to expanding the horizon of individuals’ life choices—that they are better dealt with in a separate section, found below.

However, *pure* capitalism is not a perfect fit for liberalism. What has been deemed legitimate property to exchange in the market has been contentious within liberal orders and in cases, most notoriously racial slavery, in complete violation of liberal principles. So capitalism could not make assurances to liberalism if it could only exist through absolute market freedoms. But, because it could allow states to regulate trade in particular goods—whether that meant criminalization or partial or full legalization—and to establish standards, it could offer a space that is “free enough” to assure both capitalism and liberalism that their union works.

These institutions are not just good for *individuals*, but liberals are also highly optimistic about how collective human nature expresses itself *socially* inside these institutions. Capitalism and liberal democracy are seen to create stable, efficient, and prosperous social formations in which free individuals may thrive. And they not only temper the worst tendencies of our nature but also realize its greatest

potential. A key feature of both is the aggregation of mostly private, self-interested decisions.

Capitalism, liberals argue, drives humanity to reach its innovative and productive peak, and is more efficient than preceding or competing economic systems. Atomized individuals making autonomous self-interested utility-maximizing decisions in an impersonal market yield correct prices, which allows individuals to make informed choices, which yields efficient social distribution of scarce resources. People express personal choice by “voting with their wallets,” collectively determining the most desirable products and guiding the actions of producers. Over time, these market forces have allowed individuals to access a bewildering array of options, all without the need for the economy to be subsumed under the arbitrary control of a central state authority.²⁴³ Liberal democracy,

²⁴³ The productive capabilities of capitalism and the market, the freedom they offer, and the innovative spirit they unleash are long-running themes through liberalism. Seeking to explain the economic growth occurring in countries adopting incipient capitalism, Adam Smith observed in *The Wealth of Nations* (Toronto: Modern Library, 2000) that it was those societies with the most complex divisions of labour (coordinated by self-interested market actors) that saw the greatest levels of productivity. Thanks to “the great multiplication of the productions of all the different arts, in consequence of the division of labour” societies experience “that universal opulence which extends itself to the lower ranks of the people” so that “the accommodation of an European prince does not always much exceed that of an industrious and frugal peasant, as the accommodation of the latter exceeds that of many an African king, the absolute master of the lives and liberties of ten thousand naked savages” (pp. 12-13) But the division of labour was limited by the size of the market, and it was here that the accumulation of capital stock comes to play its key role by expanding that market.

A little over two generations after Smith was writing, J.S. Mill would open Book IV of his *Principles of Political Economy* by remarking on a “progressive movement which continues with little interruption from year to year and from generation to generation; a progress in wealth; and advancement of what is called material prosperity.” This “progressive economical movement of society” was accompanied by progress in science (“physical knowledge”), freedom from arbitrary state power, and productive and free cooperation in the market. See John Stuart Mill, *Principles of Political Economy, Books IV and V* (Penguin, [1848] 1988), 55-60.

In the 20th century, Joseph Schumpeter (*Capitalism, Socialism and Democracy (Third Edition)* (New York: Harper Perennial, 2008)) extolled “the essential fact about capitalism” (p. 83): Creative Destruction, which “incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating the new one.” Capitalism, for him, had positive effects not just for the economy but for all of civilization: “Not only the modern mechanized planet and the volume of the output that pours forth from it, not only modern technology and economic organization, but all the features and achievements of modern civilization are, directly or indirectly, the products of the capitalist process. They must be included in any balance sheet of it and in any verdict about its deeds or misdeeds” (p. 125). Later in the 20th century, Milton Friedman (with Rose Friedman) evocatively took the example of a simple pencil to show how free-market capitalism is

meanwhile, aggregates the preferences of individual voters to compose a body of representatives said to reflect the general will and consent of the voting population who would otherwise remove representatives that failed to preserve or enhance individuals' freedom and wellbeing. It thus keeps corruption and authoritarianism at bay while also resolving another problem: that of scale in governance.

At the same time, liberalism is pessimistic about how human nature will express itself in societies where these institutions are absent or badly constituted. Societies with weak or dysfunctional states experience high levels of internal violence as individuals compete with one another.²⁴⁴ Under- or undemocratic states are subject to tyranny and corruption. But overly democratic states are unwieldy because contemporary societies are too large to suit direct models of decision-making and such models expect too much time and effort dedicated to political participation to be realistic in any case. Non-capitalist societies, for their part, will be wracked economically by backwardness, inefficiency, and stagnating technological development. For Fukuyama, the 20th century was a kind of crucible, a testing ground for vastly different alternative political institutional formations and their compatibility with human nature. In the end, liberalism alone stood triumphant.²⁴⁵

able to produce an array of novel goods and coordinate their production on a global scale (see chapter 1 of their *Free to Choose*).

²⁴⁴ The thesis of Steven Pinker's *The Better Angels of our Nature* is that there has been a remarkable and undeniable fall in levels of violence throughout human history. He views human nature in Hobbesian terms where people are self-interested beings prone to violence in the absence of a powerful state to "overawe" them and argues that with the historical extension of the state, violence diminished. International conflicts similarly diminished with the expansion of capitalism with its "gentle commerce."

²⁴⁵ As he put it, "the liberal *idea*" was emerging as the political victor. "That is to say, for a very large part of the world, there is now no ideology with pretensions to universality that is in a position to challenge liberal democracy...Monarchism in its various forms had been largely defeated by the beginning of this century. Fascism and communism, liberal democracy's main competitors up till now, have both discredited themselves...Even non-democrats will have to speak the language of democracy in order to justify their deviation from the single universal standard." Fukuyama, *The End of History*, 45.

So liberal democracy and capitalism offer assurances that they can realize the liberal core ethic in the real world. To a convinced liberal, departing from them—even in the face of a threat like climate change—would mean endangering that ethic either by playing with the kinds of forces that ushered in the tyrannical social formations of the 20th century or by experimenting with untested institutions whose assurances are unknown and possibly unrealistic. But if capitalism and liberal democracy had to offer assurances to liberalism, so did liberalism have to accommodate its chosen institutions. And that comes at a heavy cost. In taking on capitalism and liberal democracy, liberalism has accepted or left unchanged many of the logics, imperatives, and limitations they possessed, and it is in this way that the liberal complex comes to constrain the climate response.

Liberalism never as a matter of principle required its democracy to take on any stronger forms of formal political participation than elections in multiparty systems once the franchise was extended to all adult citizens, and is quite compatible with a depoliticized citizenry.²⁴⁶ It protects the strong private property

²⁴⁶ Pessimism about more participatory forms of democracy is associated with an influential model of liberal democracy described sometimes as the *pluralist elite model* or *competitive elitism*, associated most prominently with Joseph Schumpeter. C.B. Macpherson, a critic of that model, described it as follows: “The main stipulations of this model are, first, that democracy is simply a mechanism for choosing and authorizing governments, not a kind of society nor a set of moral ends; and, second, that the mechanism consists of a competition between two or more self-chosen sets of politicians (élites), arrayed in political parties...The voters’ roles is not to decide political issues and then choose representatives who will carry out those decisions: it is rather to choose the men who will do the deciding...There is no nonsense about democracy as a vehicle for the improvement of mankind. Participation is not a value in itself. The purpose of democracy is to register the desires of people as they are, not to contribute to what they might be or might wish to be. Democracy is simply a market mechanism: the voters are the consumers; the politicians are the entrepreneurs.” See C.B. Macpherson, *The Life and Times of Liberal Democracy*, (Oxford University Press, 2012 [1977]), 78.

A notorious example of apprehensions among some liberals about more participatory forms of democracy came in the wake of the popular democratic movements of the 1960s. Political scientist Samuel Huntington—uneasy with, among other things, American youths’ refusal to automatically obey a variety of forms of established authority (the police, government, work bosses)—wrote, “some of the problems of governance in the United States today stem from an excess of democracy...Needed, instead, is a greater degree of moderation in democracy.” Michael J. Crozier, Samuel P. Huntington, and Joji Watanuki, *The Crisis of Democracy: Report on the Governability of Democracies to the Trilateral Commission* (New York University Press: 1975): 113.

Wolin describes contemporary electoral politics in 21st-century liberal democracies as having taken on the form of an “inverted totalitarianism”: “The crucial element that sets inverted totalitarianism apart from Nazism is that while the latter imposed a regime of mobilization upon its

rights capitalism requires; a key part of that has meant carefully protecting a historically unique delineation between the political and economic spheres, ensuring that the decisions about production, distribution, pricing, etc. remain the purview of private market actors and is thus not subject to democratic rule. All of that has meant a sharp limitation on democracy both in scope and degree of participation. Liberalism has accepted the economic inequalities inherent in capitalism, part of which has entailed massive wealth concentration among the upper classes (particularly in neoliberal times). Concern for human wellbeing has been operationalized in terms influenced by capitalist market valuation: growth in gross domestic product. (Moving away somewhat from political philosophy and into the realm of political economy we can further observe that, given these arrangements, liberal states are vulnerable to influence and capture by powerful corporations, industries, or economic interests (e.g., lobby groups), and are not above using compulsion or force to open markets.) And there is one imperative of capitalism that we need to pay special attention to: economic growth.

2.2 Growth: Keeping Liberalism's Promise

In allying with capitalism, liberalism also takes on one of capitalism's important characteristics: growth. Fortunately for that alliance, growth also works to advance liberalism in several main ways.

1) *Pushing back scarcity, calming revolution.* Sheldon Wolin once observed that liberalism is wracked by a kind of anxiety. Over the course of its history, liberal philosophy had to abandon an early conception of *capaciousness*—of “sufficient social space to accommodate the driving energies unleashed by [...] capitalism”²⁴⁷—and was forced to recognize the reality and stubbornness of scarcity. The fixed

citizenry, inverted totalitarianism works to depoliticize its citizenry...Where the Nazis wanted a continuously mobilized society that would support its masters...the elite of inverted totalitarianism wants a *politically* demobilized society that hardly votes at all.” See Sheldon Wolin, *Politics and Vision: Continuity and Innovation in Western Political Thought (Expanded Edition)* (Princeton, NJ: Princeton University Press, 2004), 592.

²⁴⁷ Wolin, *Politics and Vision*, 288.

amount of capital at a given time meant that there were limits to the investments that could be made and these investments determined what and how much could be produced; in other words, the fixed amount of capital fixed the amount of production, fixing in turn available goods. As the new science of economics revealed the law of diminishing returns—where increasing amounts of investment in one factor of production yields increasingly smaller returns on that investment—the concerns about scarcity grew. It required little additional reflection to realize that in the unequal societies developing under incipient capitalism, the masses composing lower classes would blame persistent experience of poverty and deprivation on property-holding classes accumulating the majority of fixed production.

Wolin argues that liberalism solved the threat of the masses by assigning a strong state role in protecting private productive property.²⁴⁸ (In this way, liberalism was forced to not only accept inequality, but also devised an instrument to secure it.) But we can add to Wolin's argument. Though it might never fully eliminate liberal anxiety, growth can assuage the worst of it. Growth can mollify the populace and quell revolutionary fervour so long as marginalized groups can appropriate some of that growth for themselves and experience an improvement in their living standards. Increased growth ensures increased production and thus availability of goods. So, while production is fixed by the amount of capital at a given time, capital that grows over time leads to growth in production. The standard metaphor is of the "economic pie." Even where workers only obtain a fixed proportion of the total economic pie, as long as that pie grows so does the absolute amount workers take.

Growth can also maintain the status quo by creating new jobs to replace those destroyed in the process of technological change and capitalist competition. In this case, material conditions may not be improved, but growth prevents them from worsening. It is important for liberalism because where material deprivation threatens wellbeing—whether in terms of physical survival, social status, or sense

²⁴⁸ Wolin, *Politics and Vision*, 290.

of dignity—it becomes the motivator of revolution. Growth, then, inoculates liberalism from a kind of opportunistic internal infection: class inequality.

2) *Promoting Human Development and Welfare*. Not only can growth prevent the overturning of the liberal order by angry social movements, but growth also creates an ever-larger social surplus, which can be invested in human development. For example, education paid partially or in full through a social surplus allows people to develop skills and acquire knowledge to pursue their good life. Where growth increases that surplus, the opportunities for education increase. Opposing currents of liberalism differ in how (and how much of) that growing surplus ought to reach the masses. Left-liberals would give a large role to a generous welfare state. Right-liberals would insist that it “trickle down” from owners of the property who accumulate gains from growth. However, both would agree on the necessity of growth.

3) *Putting the “I’s” in Liberalism*. Growth may also be a key source of individual thinking, of the ability to ask, “Who am I?” As growth at the same time depends on and creates social complexity and divisions of labour, and as individuals begin to specialize in a variety of functions, the “I” takes precedence over the “We,” and the individual ceases to be subsumed by the collective.²⁴⁹

4) *Expanding the circle of liberal inclusion*. Growth, the argument goes, also carries important and beneficial moral consequences for liberalism, as it “fosters greater opportunity, tolerance of diversity, social mobility, commitment to fairness, and dedication to democracy.”²⁵⁰ As the economy grows, so do opportunities available to a population. Conflicts over scarce resources or jobs diminish precisely because they have become less scarce. There is less fear about expanding rights to members of competing groups (who, through these rights, are better able to secure a larger portion of the total economic output) and therefore more tolerance of

²⁴⁹ Stephen Quilley, “De-Growth Is Not a Liberal Agenda: Relocalisation and the Limits to Low Energy Cosmopolitanism,” *Environmental Values* 22 (2013).

²⁵⁰ Benjamin M. Friedman, *The Moral Consequences of Economic Growth* (New York: Vintage Books, 2005), 4.

difference. As intolerance retreats and arbitrary barriers to achieving one's good life diminish, more people receive the experience of liberalism.

Growth achieves, then, the conditions necessary for liberal pluralism. Pluralism follows from liberalism, after all. As Rawls put it, pluralism is "the natural outcome of the activities of human reason under enduring free institutions."²⁵¹ If all are free to pursue their own good, and if people are by nature diverse, then it follows that a society must make possible a broad array of versions of the good life. The reappearance of fascist parties in Greece and the growth of nativist groups like the Tea Party in the US following the 2008 global economic recession, and the resurgence of a xenophobic right in the UK Independence Party and in the rise of President Donald Trump provide a stark warning about what can happen to tolerance in the midst of economic recession and slow, uneven recovery.

Growth also promotes liberal cosmopolitanism. Where growth has been powered by increased trade and mobility, the resulting intensification of contact between groups leads them to integrate economically, promoting a kind of stable peace between them. The spirit of this idea was summed up famously by neoliberal writer Thomas Friedman: "No two countries that both had McDonald's had fought a war against each other since each got its McDonald's."

5) *Expanding the life choices of liberalism.* But growth does not just secure liberalism for more people within and between societies. It also expands the horizon of life choices available to those people. For those living in the 21st century (assuming they are in a developed country and of a social class that wins significant benefits from it), growth has provided a wealth of choices not available to any of those living a century earlier. If the inviolability of individuals' plans of life is the bedrock of liberalism, then an expansion of possible plans of life to choose from must be a good thing, greatly enlarging the ways to live and enrich one's life.

²⁵¹ John Rawls, *Political Liberalism, (Expanded edition)* (New York: Columbia University Press, 2005), xxiv.

Growth promotes the availability of goods and services to ever more people. As economist Robert Reich puts it: “economic growth isn’t just about more stuff. Growth is different from consumerism. Growth is really about the capacity of a nation to produce everything that’s wanted and needed by its inhabitants.”²⁵² So growth provides more means for people to use in securing and living their good life. But growth introduces a self-amplifying dynamic, because what is “wanted and needed” grows in step with what it is possible to have. Individuals’ plans of life change in accordance with what is available. Growth-liberalism gives us even those things we never knew we wanted and needed and, once given, suddenly could not be happy without.

6) *Progress*. Growth is also intertwined intimately with *progress*, the perceived or actual improvement over time of the quality of human life, the depth and breadth of knowledge, and the capacity of technology. Advancements in quality and length of life, scientific knowledge, and technological complexity have reached their apex under liberal orders. Continued progress in these areas suggests that liberalism must be doing *something* right. And people ought not question it because, as we will discuss in the next chapter, there is still so much more progress can accomplish.

The projects of liberalism, capitalist growth, and progress come to be natural allies, forming a dense and complex nexus, one whose dynamics climate change responses ought not disrupt. We can start at any one of these projects and see how they are together enmeshed. Let us start, for instance, with growth: growth generates an expanding economic surplus, part of which can be reinvested into research and development, leading to technological innovations, to which capital can acquire property rights and use to enhance growth while expanding the horizon of what people can acquire and experience (through the capitalist market). Or to start at another point, liberalism ensures progress by freeing people to pursue a

²⁵² Robert Reich, “Why growth is good,” *Christian Science Monitor*, August 20, 2010, <http://www.csmonitor.com/Business/Robert-Reich/2010/0820/Why-growth-is-good>

plan of life matching their unique talents and interests among which may be scientific inquiry and experimentation, which has the potential to lead to greater efficiencies and new products or even industries, thereby promoting growth. Technological progress is required due to capitalism's tendency for creative destruction in pursuit of growth, which would steadily erode the employment through which people earn the means to their good life.²⁵³ Progress is therefore needed to constantly provide new capitalist products, services, and industries—all good for sustaining growth.

In sum, as long as capitalism can provide growth, it can make some assurance to liberalism that their union is justified. But if growth serves to enhance liberalism in the above ways, any move away from growth—even in the name of fighting climate change—has a difficult task ahead of it: critiques of growth risk triggering fears of losing important parts of liberalism. Green political philosopher Andrew Dobson asks,

[W]hat happens if and when the conditions that made liberal thinking possible no longer obtain? Are democracy, freedom, individualism, the liberal rule of law and so on, in some sense dependent on conditions of abundance? If these conditions disappear, can these liberal aspirations/achievements survive?²⁵⁴

²⁵³ Fukuyama understands progress in science to necessarily lead to capitalism and to do so globally: "modern natural science establishes a uniform horizon of economic production possibilities. Technology makes possible the limitless accumulation of wealth, and thus the satisfaction of an ever-expanding set of human desires. This process guarantees an increasing homogenization of all human societies, regardless of their historical origins or cultural inheritances. All countries undergoing economic modernization must increasingly resemble one another...Moreover, the logic of natural science would seem to dictate a universal evolution in the direction of capitalism" (*The End of History*, xiv-xv).

²⁵⁴ Andrew Dobson, "Political Theory in a Closed World: Reflections on William Ophuls, Liberalism and Abundance," *Environmental Values* 22 (2013) 241–259: 246.

2.3 The “Fine Tuning” of Liberalism’s Elements: Different Liberal Guises

Liberalism’s institutions are complex and must deal with an array of often contradictory elements—private property, class inequality, sharp separation between economic and political spheres—that can be “fine-tuned” or “customized” with regards to how strong and far-reaching they are, the priority they take relative to other elements, and so forth. There are some familiar examples:

- Strong rights to productive property (and the income generated through it) that yield enormous economic class disparities sit in tension with the equality liberalism purports to advance. Right-wing liberals like neoliberals and libertarians resolve this tension by justifying the inequalities, seeing them as inevitable and necessary for individual liberty in a survival-of-the-fittest market society with little government interference; liberals further to the left tend to favour redistributive welfare state provisions to secure against the worst effects of the inequalities or even state investments in the economy to promote job growth.
- Negative economic freedom, measured by the reduction or even absence of state-imposed taxes and regulation, rests uneasily alongside positive economic freedom, aided by redistributive state policies.
- By using property rights to remove important decisions on production, investment, distribution etc. from popular democratic control, capitalism delimits the scope for the democracy that is supposed to enhance human freedom.
- By allowing elected governments to set policies on taxation, subsidies, and regulations, democracy interferes with capitalist freedoms.

One could add to these examples, but the point is hopefully clear enough to continue. Over the course of its history, liberalism drops, weakens, or circumscribes

some elements in favour of others, yielding quite different *assemblages* of itself over time. They serve different functions and political constituencies and so a given assemblage requires political work by a variety of political actors to either achieve or prevent. Assemblages also each must serve—or at self-justify its arrangements as serving—to realize the same core liberal ethic: the promise of the freedom for each individual to pursue a good life.²⁵⁵

Liberalism’s assemblage for the early 21st-century is still coalescing, but we can be sure that its ability to take on many guises will make attempts to depart from it difficult. Part of the endurance of liberalism is no doubt its ability to contain and selectively deploy so many of its antipathetic elements from its deep roster, enabling it to last through time by delimiting much of mainstream political contestation over a good society in the space between poles internal to itself. The arc of the liberal pendulum is a wide one, including quite different kinds of societies in its swing. Its different assemblages, while all part of liberalism, are different enough from one another that they can even form the basis for fiercely competing liberal political parties. Rather than threatening the long-term viability of liberalism, these internal contradictions and rivalries have been a major part of its longevity. Much of the discontent with one liberal guise, say today’s neoliberal one, can be

²⁵⁵ Take, for example, the assemblage occurring in the wake of tremendous labour organization and that gave rise to social democratic forms of liberalism in the post-war period. It oversaw the “golden age of capitalism” where state investment in the capitalist economy and the labour-capital class compromise served to steer the first world out of depression and the post-war reconstruction, promote economic growth that was shared between workers and owners, reduce some of the appeal of non-liberal left alternatives, and quell radical labour activism. This arrangement extended opportunities for (primarily white male) members of the working class to pursue a good life using means earned through steady, unionized employment and generous welfare state provisions. The neoliberal assemblage, to take another example, served several functions during the global economic crisis of the 1970s. Economic elites and sympathetic political elites could deploy the philosophical justifications of right-wing liberal economists and philosophers like F.A. Hayek, Milton Friedman, Ayn Rand, or Robert Nozick to show how liberty was best achieved by undoing the previous assemblage. The new assemblage was one where the minimization of the state role in promoting equality and the privatization of social programs were justified as sparing taxpayers from forcibly supporting government spending; union-busting legislation banning private sector employers from having to pay union dues allegedly liberated workers and gave them “the right to work”; loose employment termination laws gave workers “flexibility” to choose their place of employment. Improving global competitiveness, on which the health of the economy and its ability to provide jobs was said to rely, justified similar suites of reforms across the world.

answered by switching to another, say social democracy, rather than having to jump liberalism's ship altogether.²⁵⁶ But that change still retains liberalism's preferred institutions and can alter their logics and imperatives to only a limited degree. If that part of the climate movement concerned with climate change only attempts to engage the political system enough to break away from the neoliberal assemblage, it may find itself frustrated by the persistence of liberalism's constraints in the new assemblage.

2.4 Summary of Part 1

In order to carry out the obligations demanded by what I called a far-reaching climate justice, we must make systemic change. The system that must be changed, somehow, is liberalism, a formidable edifice. Its core ethic—the promise to all individuals to freely and equally seek their respective vision of the good life—is difficult to object to. Any stronger critique would have to begin with the defining features discussed above. But for all the attacks one might direct at liberalism's institutional arrangements, one then faces the daunting task of showing what they can be replaced with and whether they will preserve that core ethic or replace it with a better one. Any alternative we might propose is disadvantaged in that it whips up fears of the failed social experiments of the 20th century. Or it may be disadvantaged in that its possibilities are hypothetical, untested, unknown, and maybe unrealistic; liberalism is complete and realized in a way that competing, but not-yet-realized, visions are not. And even massive political work might merely lead

²⁵⁶ Fukuyama's End of History thesis does not necessarily assert neoliberal views. Rejecting the notion that persisting economic inequality under liberal orders constituted a fatal contradiction of liberalism and would undermine his thesis about its constituting the end of history, Fukuyama wrote, "There are today few critics of liberal societies who are willing to advocate the wholesale abandonment of liberal principles, either in the political or economic realm, in order to overcome existing inequality. The major arguments concern not the principles of liberal society, but the precise point at which the proper trade-off between liberty and equality should come...the specific trade-offs they choose can all be made under the broad tent of liberal democracy, without injury to underlying principles. *The desire for a greater degree of social democracy [...] does not itself refute the end of history.*" Fukuyama, *The End of History*, 293-294 [emphasis mine].

to another assemblage of liberalism, given the system's ability to take on various guises.

Imagine now trying to push ambitious climate action through this very unyielding complex. If the good life is one that must be secured by the institutions of the liberal order, then that will mean a just response will need to preserve them, but in doing so it will accept the limitations that that institutional arrangement places on climate action. In the next section, I propose a means of conceptualizing how liberalism comes to accept only a very constrained range of climate solutions and limits opportunities for the *demos* to support them.

3. Liberal Filters to Climate Solutions

On the matter of climate change, the liberal order is a fatally lumbering thing. The purpose of the following section is to propose a conceptual model that provides an explanation for why ambitious climate policy has been so slow in coming—why even in the face of a vociferous climate movement and well-reasoned burden-sharing arrangements rigorously defended by climate ethicists not only is the range of solutions governments have been prepared to propose very narrow, but also very weak. In this section, I argue that capitalism and liberal representative democracy function together in such a way as to impose a series of “filters” through which solutions to the impending global climate change crisis must pass in order to be considered seriously at state and international policy levels.²⁵⁷ The presence of these filters follows logically from the institutional functioning of liberal representative democracy and capitalism and not only limits the range of possible solutions, but also dissipates much of the democratic support that can be given to any of those that survive the elimination process.

²⁵⁷ I am applying to climate policy a model similar in spirit to Noam Chomsky and Edward Herman's Propaganda Model from *Manufacturing Consent: The Political Economy of the Mass Media* (New York, NY: Pantheon Books, 2002), which identified several “filters” through which news must pass before it entered mainstream corporate media outlets in the US. That model accounted for the narrow ideological views that could enter into the dominant and mainstream private news media.

Liberal Representative Democracy

The first system of filters stem from the ways in which modern liberal democracy prevents popular involvement in choosing, voting on, or otherwise influencing in any large measure the long-term policies on climate change adopted by government.

3.1 Elections and Representation

Santos and Avritzer describe elections as “the means by which citizens give up the right to take decisions directly by delegating it to their representatives.”²⁵⁸ In other words, the role of the electorate during an election is to authorize its own marginalization until the next one, at which point it hands over political decision-making once again. For the duration of their time in public office, representatives generally operate independently of popular input. It is a system Max Weber called “free representation” (*freie Repräsentation*), where *free* referred not to the nature of the process of choosing representatives through elections, but to the independence of the representative, who “is obligated only to express his own genuine conviction, and not to promote the interests of those who have elected him.”²⁵⁹

What this means for the range of possible domestic policies for climate change is that party representatives are free to make some key decisions independently of the populace: (1) whether or not to actually include policies addressing the crisis in their platforms; (2) which policies to pursue; (3) whether to pursue them if elected; (4) the extent, ambition, and timing of emissions targets; (5) how policies will be implemented, monitored, and evaluated, and by whom; and (6)

²⁵⁸ Boaventura de Sousa Santos and Leonardo Avritzer, “Introduction: Opening Up the Canon of Democracy” in Boaventura de Sousa Santos (ed) *Democratizing Democracy: Beyond the Liberal Democratic Canon* (New York: Verso, 2007), lxvi.

²⁵⁹ Max Weber, *The Theory of Social and Economic Organization* (New York, NY: The Free Press, 1964), 417. See also the discussion in Michael Hardt & Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (Toronto: Penguin, 2005), 246.

whether to continue to make long-term commitments to major fossil fuel development projects.²⁶⁰ Depending on how many candidates include solutions to climate change in their platforms, an electorate can be presented with few or even no means of supporting ambitious solutions to climate change.

The electorate is not as a rule formally invited to submit its climate solutions or directly choose from those offered, but only to be willing to elect representatives who will then craft and enact the policies (with input from policy consultants and commissions²⁶¹) mostly autonomously of democratic input. The role of the general

²⁶⁰ On this last point, consider the 2015 Canadian federal election. None of the major federal parties strongly rejected continued tar sands development. TransCanada's Keystone XL tar sands pipeline was supported by both Liberals and Conservatives, Enbridge's Northern Gateway tar sands pipeline was supported by the Conservatives, and the NDP reserved judgment on Kinder Morgan's TransMountain and Enbridge's Line 9 tar sands pipelines until a proper environmental assessment could be conducted. (To many of us in the climate movement, this stance was indicative of the weak climate commitments the NDP under Mulcair was willing to make since, if climate impacts are considered, no environmental assessment would possibly permit continued tar sands development given the carbon content in tar sands reserves.) The Greens, while not a major federal party, had the strongest position on the tar sands, not supporting pipelines but supporting oil and gas refinement in Canada, including from tar sands. See Yadullah Hussain, "Pipelines & politics: Where the parties stand on oil & gas issues," *Financial Post*, October 14, 2015, <http://business.financialpost.com/news/energy/pipelines-politics-where-the-parties-stand-on-oil-gas-issues>; Josh Wingrove, "Mulcair Pegs NDP Support for Canada Pipelines to New Assessments," *Bloomberg*, August 7, 2015, <http://www.bloomberg.com/news/articles/2015-08-07/mulcair-pegs-ndp-support-for-canada-pipelines-to-new-assessments>; David Ljunggren, "Canada's buoyant Greens say they don't favor oil sands shutdown," *Reuters*, August 7, 2015, <http://ca.reuters.com/article/domesticNews/idCAKCN0QC28E20150807>

This is also a good place to mention that the Trudeau government approved in late 2016 Kinder Morgan's Transmountain tar sands pipeline, ignoring protests across the country including a large civil disobedience action in front of Canada's Parliament.

²⁶¹ An episode during the 2016 US Presidential election gives some insight into how policy consultants can eliminate ambitious climate options from representatives' platforms. Bill McKibben relates his experience as an appointee from the Bernie Sanders campaign to a commission responsible for drafting the Democratic Party platform for the 2016 US presidential election. His attempt to include ambitious climate policies was met with dismissal from Hillary Clinton's delegates: "We all agreed that America should be operating on 100 percent clean energy by 2050, but then I proposed, in one amendment after another, a series of ways we might actually get there. A carbon tax? Voted down 7-6 (one of the DNC delegates voted with each side). A ban on fracking? Voted down 7-6. An effort to keep fossils in the ground, at least on federal land? Voted down 7-6. A measure to mandate that federal agencies weigh the climate impact of their decisions? Voted down 7-6. Even a plan to keep fossil fuel companies from taking private land by eminent domain, voted down 7-6. (We did, however, reach unanimous consent on more bike paths!)." Later, the Clinton campaign took on *some* of the suggestions—things like carbon pricing (but not a carbon tax), and a program to install half a billion solar panels across the US in four years." It was only enough to at most create some mild optimism: "you could, if you squinted, create a hopeful scenario," McKibben wrote. Bill

population is to form a sort of reserve of raw volition for action on climate change, that is, to give a mandate for climate policy decisions made by governing elites, but not themselves become makers of policy. Citizens' climate targets and proposals for solutions, whatever they may be, tend to be filtered out of those included in party platforms.

This process of filtering occurs even on those rare occasions when citizen input *is* formally invited. In the summer of 2016, Members of Parliament of Canada's new Liberal government held several town-hall format public consultations to hear, ostensibly, what Canadians wanted done about climate change. Activists with Toronto350.org and other groups went to several (including Environment and Climate Change Minister Catherine McKenna's), where they pressured representatives to make serious commitments to climate action and climate justice. By September, the effect of the public consultation on climate policy became clear: the Liberal government simply reaffirmed the previous Conservative Harper government GHG emissions reductions targets (reductions of 17% relative to 2005 levels by 2020 and 30% by 2030), a level of ambition that has been deemed "inadequate" by the Climate Action Tracker, an independent scientific analysis tracking global emissions reductions pledges. If all countries adopted levels of ambition similar to Canada's, temperatures would likely rise 3-4°C above pre-industrial levels.²⁶² (In November 2016, a "Youth Climate Town Hall" put on by McKenna appeared to screen out of the discussion a lot of youth views on climate

McKibben, "The Clinton Campaign Is Obstructing Change to the Democratic Platform," *Politico*, June 27, 2016, <http://www.politico.com/magazine/story/2016/06/hillary-clinton-2016-democratic-platform-213993>; and Bill McKibben, "A World at War," *New Republic*, August 15, 2016, <https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>

²⁶² Elizabeth McSheffrey, "Politicians not pleased with McKenna's new climate commitments," *National Observer*, September 19, 2016, <http://www.nationalobserver.com/2016/09/19/news/politicians-not-pleased-mckennas-new-climate-commitments>; "Canada," *Climate Action Tracker* (2016), <http://climateactiontracker.org/countries/canada.html>; "Comparability of effort," *Climate Action Tracker*, <http://climateactiontracker.org/methodology/85/Comparability-of-effort.html>; Carol Linnitt, "Canada's Climate Action Called 'Inadequate' at UN Climate Talks in Marrakech," *Desmog Canada*, November 15, 2016, <http://www.desmog.ca/2016/11/15/canada-climate-action-inadequate-marrakesh-un-climate-talks>

change that required taking on the fossil fuel industry in favour of less controversial matters like individual lifestyle changes.²⁶³)

Elections weaken direct support for climate action in other ways. A municipal, state/provincial, or federal election is a “packaged deal”; that is, through parties’ political platforms an election covers a broad array of issues instead of single ones. What the electorate is saying can be unclear and interpretable. Were voters voting for one leg of a party’s platform, for another, for parts of it, or for the whole thing? Which parts do they prioritize? Should one piece (e.g., immediate economic stimulation in a recession) come at the expense of another (e.g., immediate action on climate change) or must they both be realized? To what degree were electors kept distracted or made unaware of political platforms or even manipulated by the public relations, campaign strategists, and corporate news media constructions of politicians’ images? The latter is an important question to ask when the topic of climate change was barely raised by either the moderators or presidential candidates during televised debates preceding the 2016 US election, the most prominent public expression of candidates’ positions.²⁶⁴

Because a general election, unlike a referendum (insofar as it is a binding one), provides no way of directly voting for issues on a given policy, there are few ways of weighing the support for a given issue versus support for other parts of the platform. To fit through this filter, the richness and detail of the will of the electorate must be simplified. Perhaps a useful analogy to better understand this process is digital audio/video compression, which is used to reduce the amount of data contained in an electronic media file, thus reducing the file’s size. In this way, media can be made to fit through various limited bandwidths. The trade-off is a loss in

²⁶³ “Get in the Game: McKenna gets schooled on #YouthClimateAction,” *350Canada*, November 24, 2016, <https://storify.com/350Canada/get-in-the-game>

²⁶⁴ Brian Kahn and Andrea Thompson, “The Climate Questions the Next President Should Answer,” *Climate Central*, October 20, 2016, <http://www.climatecentral.org/news/the-climate-questions-the-next-president-should-answer-20804>; “In Warmest Year Ever, Climate Change Ignored Again at Debate,” *Democracy Now*, October 20, 2016, http://www.democracynow.org/2016/10/20/in_warmest_year_ever_climate_change

sound and image quality. In much the same way that audiences do not hear the whole complexity of a compressed song or see the entire richness of a compressed video, elections have the effect of filtering out much of the character of an electorate's will so that its full quality goes unheard and unseen and only a general, *compressed* approximation—a lower-quality duplication—passes through. Election results are thus open to the interpretation of the elected representatives instead of being a clear representation of demands.

While single issues can come to dominate an election, these issues tend to be of the more pressing kind in the short-term like an economic recession or more immediately and emotionally visceral, such as a scandal. A longer-term matter like climate change has tended to be deprioritized, pushed aside until it becomes a short-term issue—that is, once it is starting to have undeniable and serious effects on the population voting—at which point it is too late.²⁶⁵

Barred from more direct forms of involvement in climate policy formation, participation thus becomes “displaced” to the kinds of actions reviewed in the previous chapter—mass marches and demonstrations, blockades, and divestment. But this entails a downgrading of the democratic role the *demos* could potentially have played from one of *positive* policy formation (perhaps on the model of citizens' assemblies, to give just one suggestion) to one largely characterized by *negation*, that is, protest or resistance against decisions that have already been made, *removal* of social license rather than collective *creation* of a vision of a society.

One potential way around this filter was mentioned at the end of last chapter. In fall 2016, Washington State voted on a grassroots-sponsored ballot initiative regarding the adoption of a revenue-neutral carbon tax (ultimately rejected).

²⁶⁵ This raises what Giddens calls “Giddens’s Paradox”: “since the dangers posed by global warming aren’t tangible, immediate or visible in the course of day-to-day life, however awesome they may appear, many will sit on their hands and do nothing of a concrete nature about them. Yet waiting until they become visible and acute before being stirred to serious action will, by definition, be too late.” Anthony Giddens, *The Politics of Climate Change* (Malden: Polity, 2009), 2. Of course, whether the many would still “sit on their hands and do nothing of a concrete nature” if they had the option of being involved in a more serious and direct way in the creation and approval of long-term policy on this issue does not appear to figure into Giddens’s Paradox.

Initiatives like these might manage to put some climate policy on the political agenda at least at the subnational level, an important possibility to explore with the recent election of Donald Trump.

3.2 International Representation

Because it permits access for civil society actors (as well as developing countries), the international-level climate regime is held to be more stakeholder-inclusive than other international regimes (as mentioned in chapter 3).²⁶⁶ However, the various civil society organizations—the bodies through which citizens can most directly become engaged in influencing the direction of the international climate regime—appear only as observers who may on occasion share views with delegates, but who do not otherwise engage in negotiations and who certainly have no role in approving or signing agreements. Furthermore, their participation must be approved by the United Nations Framework Convention on Climate Change secretariat, they are barred from entering meetings designated as “closed,” and they are subject to a number of restrictions on how and where they can participate.²⁶⁷

So although relatively more *inclusive*, it would be a stretch to call the international climate regime *democratic* due to the lack of citizen participation in decision-making.²⁶⁸ Rather, negotiations are conducted by *appointed* state delegates and diplomats, not *elected* ones. The electorate has thus been filtered out twice from direct decision-making and participation at this level: once through the election of representatives and again through the representatives’ appointment of delegates

²⁶⁶ Dana R. Fisher, “COP-15 in Copenhagen: How the Merging of Movements Left Civil Society Out in the Cold,” *Global Environmental Politics* 10, no. 2 (2010): 11.

²⁶⁷ For the rules and restrictions non-governmental organizations must abide by, see UNFCCC, “Guidelines for the participation of representatives of non-governmental organizations at meetings of the bodies of the United Nations Framework Convention on Climate Change” (2003). Available at http://unfccc.int/files/parties_and_observers/ngo/application/pdf/coc_guide.pdf

²⁶⁸ The supposed inclusiveness is further brought into question when one considers the dilemma of poorer nations at the negotiations, who cannot afford to send the same number of delegates and have difficulty accessing translated documents or transcripts of proceedings. See, UNfairplay, “Levelling the Playing Field: A Report to the UNFCCC on Negotiating Capacity & Access to Information” (2011), https://unfccc.int/files/conference_programme/application/pdf/unfairplayreportapril202011-1.pdf

who are much less accountable to an electorate than to the state that appointed them. Accordingly, over the course of the negotiations, the diplomats proceed to push the goals of their states, tied as they are to securing states' power and position in the competitive international capitalist system, and so solutions to climate change bear this imprint.

3.3 Short-Term Electoral Cycles

Setting elections at generally short intervals ensures that the electorate is given fairly regular opportunities to change its government. In this way, political short-termism is beneficial, offering a means for reacting to and replacing a government that is ineffective, corrupt, or otherwise undesirable, and precluding conditions for the creation of a long-term autocracy. In terms of solutions to climate change, however, it creates another filter.

A solution to climate change may pay off only in the long-term while potentially having directly attributable negative and immediate consequences on an economy. Take the example of the Alberta oil sands projects and pipelines, which every Canadian political party supported in some way in the 2015 federal election. Shutting them down as part of a global effort to mitigate greenhouse gas emissions risks severe political consequences for a government due to the resulting termination of a major industry and its jobs, particularly at a moment when a collapse in oil prices has led to massive unemployment in the sector.²⁶⁹ Insofar as it would help to preserve the prevailing climate, however, it is a completely justifiable response. According to a 2015 study in *Nature*, if the world seeks just a better than even chance of keeping temperature rise below 2°C, a staggering 85% of tar sands reserves (i.e., recoverable under current economic conditions) and 99% of tar sands resources (i.e., recoverable over all time using current and future technologies

²⁶⁹ By one estimate, as many as 43,000 workers in Alberta lost their jobs in the oilpatch. Estimates for job loss in industries that support the oil and gas sector are more difficult to calculate with confidence. See, Tracy Johnson, "Just how many jobs have been cut in the oilpatch?" *CBC News*, July 6, 2016, <http://www.cbc.ca/news/canada/calgary/oil-patch-layoffs-how-many-1.3665250>

regardless of economic conditions) are unburnable.²⁷⁰ However, it is only in the longer term should the world succeed in averting climate catastrophe that this decision would be vindicated, and the enacting party's political wisdom be clear. Similar dynamics apply to a wide array of other potential political decisions on climate change.

However, any solution attributable to government action with immediate negative consequences for an industry or economy and its workers, but longer-term positives, will logically be filtered out by parties and representatives interested in remaining in power. This biases representatives towards solutions that are of minimal negative consequence in the short-term (and that wind up being of minimal benefit to the climate over the long-term).²⁷¹ We can also expect this filter to prevent representatives from permitting wide citizen participation in selecting and implementing solutions to climate change wherever these solutions may have consequences that would endanger parties' or representatives' remaining in power.

3.4 Eligibility

Another important filter is voter eligibility. Eligibility means, at minimum, that a voter meets certain citizenship and age criteria. The people who in theory get to be represented are those who meet these criteria, that is, citizens of the country undertaking elections who have reached legal voting age. These and only these people are represented, albeit in limited ways, as suggested above. This creates

²⁷⁰ Christophe McGlade and Paul Ekins (2015), "The Geographical Distribution of Fossil Fuels Unused when Limiting Global Warming to 2°C," *Nature* 517 (2015): 190.

²⁷¹ As mentioned above, Canada's climate targets under the Liberal government are to reduce GHG emissions by 17% relative to 2005 levels by 2020 and 30% by 2030, which is inadequate. The government saved a more ambitious target of 80% reductions for the far-away year of 2050. Bruce Cheadle, "Ottawa releases climate strategy, says Canadians may not realize scope of problem," *Globe and Mail*, November 18, 2016, <https://beta.theglobeandmail.com/news/world/ottawa-releases-climate-strategy-says-canadians-may-not-realize-scope-of-problem/article32925503/?ref=http%3A%2F%2Fwww.theglobeandmail.com&service=mobile>

another important filter in terms of whose solutions can be included and to what degree they can be supported.

It bears repeating that climate change is a unique problem in that its effects are not localized—the worst polluters are not also the most heavily affected—but will instead have global impacts. Responsible for a mere 30% of cumulative emissions since 1750 are China (12%), India (3%), the Middle East (3%), Asia Pacific (excluding Japan and China) (5%), South and Central America (4%), and Africa (3%),²⁷² places of the world expected to experience some of the worst effects of climate change.

So, because the consequences of climate change are global, because countries in the Global South are projected to experience its worst effects, and because countries in the Global North are collectively most responsible for it both historically and currently, citizens of the Global South ought to hold some influence over the climate policies adopted by industrial nations (both advanced and emerging). The eligibility criteria, however, filters out their ability to influence which “solutions” will be adopted by rich nations as well as support those solutions that are available to choose from to ensure they are enacted. Developing countries’ influence on the climate policies of heavy polluters is instead relegated to international climate negotiations, where their lack of military, economic, or political power diminishes these representatives’ ability to set agendas.

But the effects of climate change not only cross geographic boundaries; they also extend temporally, beyond the period in which they were initiated. The potential for enormous intergenerational injustice presents a moral imperative to account for the needs and views of future generations. Though they have no literal voice, it is reasonable to presume that future generations would want current ones to preserve a climate similar to the one to which life and civilization are currently adapted. We can expand this principle to include the interests of non-human lives

²⁷² James Hansen and Makiko Sato, “Fossil Fuel CO₂ Emissions,” http://www.columbia.edu/~mhs119/CO2Emissions/Emis_moreFigs/

and their ecosystems as well in order to encompass as much as possible the totality of those affected, what Eckersley refers to a “community-of-fate,” which is “tied together not by common passports, nationality, blood line, ethnicity, or religion but rather simply by the potential to be harmed by [a] particular proposal”²⁷³—or in this case, the lack of proposals and democratic ability to realize the few that exist.

The eligibility criteria for those whose views are represented (in however limited a way) therefore filters out entirely the solutions of populations situated geographically and temporally outside the election, as well as their ability to place their support (or have their reasonably assumed support, in the case of future generations) behind any of them, despite being seriously affected. Once we consider the community-of-fate, it becomes clear that, whatever is the state of public support represented in opinion polls for solutions to climate change, it is in fact a vast underestimate.

Capitalism

Solutions to climate change tend to be considered in light of *the* economy. How might reducing greenhouse gases hurt *the* economy? How might it create opportunities for *the* economy? Of course, *the* economy in question is a specific one, capitalism, with a unique logic and set of imperatives that stem from the need for short-term profit in values visible to the market and as generated by private enterprises. Capitalism presents a second important series of filters, but before looking at these, it should be remembered that the capitalist model is only one possible form of economy, and its current form—based on growth and profit maximization in a *global, neoliberal* system—is only one of several possible models of capitalism itself. Steady-state or zero-growth economic models; lower-carbon local economies; non-hierarchical economies based on participatory decision-

²⁷³ Robyn Eckersley, “Deliberative democracy, ecological representation and risk: Towards a democracy of the affected,” in Michael Saward (ed) *Democratic Innovation: Deliberation, Representation and Association* (New York, NY: Routledge, 2000), 119.

making all present alternatives that could continue to satisfy economic needs while addressing the urgent need to decrease GHG emissions, and they deserve serious attention and consideration. The filters described below ensure that they are eliminated and solutions consistent with the goals of capital remain. In a neoliberal era, where so much economic decision-making is given to private corporations, these filters become even stronger.

3.5 Private Property

In the same way that citizens under liberal democracy are not policymakers but just voters for pre-selected platforms, citizens under capitalism are not economic planners but potential consumers. Private productive property keeps the world's immense industrial productive and financial resources beyond democratic planning (particularly in neoliberal times when so much of the economy has been privatized). Under capitalism, private property regimes over society's means of production shields firms from citizens collectively determining that production is to provide, for instance, non-profit, community run renewable energy infrastructure or affordable and efficient public transit, nor may they determine that the economy's massive economic surplus is to be reinvested in a massive scale-up of renewable energy infrastructure.

In a 2016 piece, Bill McKibben argued that it is just this kind of response governments will need to take on the climate crisis, one modelled on the massive state planning and investment that characterized wartime production during World War II under President Roosevelt.²⁷⁴ As he notes, industry initially resisted involvement, and it took orders from the US executive branch and a then-closely allied Congress to pressure private firms to deploy their productive powers in the war effort. That suggests one possible way through this filter, and McKibben wondered if a Bernie Sanders presidency could have created conditions for that wartime-like mobilization to happen. However, in the absence of something like that

²⁷⁴ Bill McKibben, "A World at War."

occurring, much of the response to climate change will remain in the private capitalist sphere, which subjects it to logics that create the still another filter, to which we now turn.

3.6 Constant Growth and Profit Maximization

Capitalism's need for perpetual profit and growth imposes one of the strongest filters to solutions to climate change. While this filter is a property of capitalism itself, its power and extent is due to the dominance of corporations in the world economy (particularly exacerbated in a time of neoliberalism), given their overwhelming influence over major investment, production, and distribution decisions. For a solution to pass through this filter, it *must* satisfy these entities' profit requirement. It cannot, in other words, demand a fundamental reorienting or reordering of the economy that could save the climate but at the expense of the profit system; such a demand would be rejected outright by the world's dominant economic institutions.

Applied to the complexities of capitalism, this filter yields complex results. Capital is not a homogeneous block, and there is resistance even to growth- and profit-friendly solutions to climate change from some centres of capitalist power, most notably the fossil fuel industry.²⁷⁵ But regardless of the splits within capital, at

²⁷⁵ Oil and gas majors were long at the forefront of rejecting market-based emissions trading proposals, the ultimate aim of which is to move consumers away from their carbon-emitting products to low- or zero-carbon ones. Only in recent years have they shown middling support for mild carbon pricing, contradicted by support for trade associations attempting to hamper climate action. (See InfluenceMap, *Big Oil and the Obstruction of Climate Regulations*, 2015.) Capital's diverse constitution has become apparent in light of the climate challenge. In 2009 the U.S. Chamber of Commerce saw an internal split over climate change, with its leadership opposed to action on the issue; major members like Apple resigning from the group citing the Chamber's position on climate change; and a breakaway group, the Chambers for Innovation and Clean Energy (CICE), demanding stronger action on climate change from *within* the Chamber's ranks (see, John M. Broder, "Storm Over the Chamber," *New York Times*, November 18, 2009, http://www.nytimes.com/2009/11/19/business/energy-environment/19CHAMBER.html?_r=1; and Josh Harkinson, "Breakaway clean energy coalition splits US Chamber of Commerce," *Guardian*, August 4, 2010, <http://www.guardian.co.uk/environment/2010/aug/04/clean-energy-coalition-chamber-commerce>). Recently, hundreds of US firms including major ones like Nike and Starbucks have urged

the core of this filter lies the need to preserve capitalist modes of production, designed as they are for profit and growth, and all solutions to climate change that have been seriously considered at state and international levels conform to this. Carbon taxes and emissions trading projects would work to give price signals to firms and consumers to switch to clean(er) energy sources, but otherwise preserve the current economic system. If these mechanisms can be introduced so as to cause minimal perturbations to profit and growth, they will receive greater support from capital, but at the cost of setting weak GHG reduction targets. If we want to keep growing, we cannot put too high a price on carbon, but if we do not put a high price on carbon, we reduce the incentives to move away from fossil fuels—hardly a harmless paradox. The much-sought after but not-yet-proven industrial-scale carbon capture and storage technologies are even more attractive and tantalizing than market-based solutions, allowing capitalist production and trade to continue without needing to change energy sources. This filter also explains the fascination with the fantastical and risky ideas of geo-engineering. Meanwhile, proposals for transitioning to a variety of alternative economic systems that could very well solve the problem—like zero-growth economies, local small-scale systems, or models that use non-market valuation systems—fail to enter into serious policy discussions.

What makes all of this particularly problematic is that perpetual growth requires so much energy. Abundant, cheap, and energy-dense, fossil fuels are deeply implicated in the functioning of the capitalist system as illustrated strikingly in the wake of the economic crisis when GHG emissions decreased 1.3% in 2009—the first decrease in a decade.²⁷⁶ (It was only over the last three years, i.e., 2014-2016, that

President-elect Donald Trump not to abandon the Paris climate agreement. Hiroko Tabuchi, "U.S. Companies to Trump: Don't Abandon Global Climate Deal," *New York Times*, November 16, 2016, <http://www.nytimes.com/2016/11/17/business/energy-environment/us-companies-to-trump-dont-abandon-global-climate-deal.html>

²⁷⁶ Friedlingstein et al., "Update on CO₂ emissions," *Nature Geoscience* 3 (2010): 811. doi:10.1038/ngeo1022. The decrease in emissions was actually lower than expected because *growth in emerging economies*, powered by significant use of dirty fossil fuels, added GHGs that made up for part of the decrease in developed-country emissions.

emissions levels flattened without a decrease in global economic growth,²⁷⁷ though a considerable part of this is due to a switch from coal to natural gas powered plants.) Bear in mind the complexity and scale of the tasks this new energy infrastructure must deal with. It must power the worldwide extraction, processing, and movement of natural resources in their manifold forms; commodity manufacture, assemblage, and transportation through production chains and on to warehousing, and final points of sale across the globe once complete; the transportation of personnel by road, rail, or air; the innumerable servers and computers coordinating marketing and production, processing orders and shipments; and so much more.²⁷⁸

Attempting to reconcile the need for perpetual economic growth with the need for very cheap and very abundant energy has created a kind of trap, one that works like this. Under this system, we cannot abandon growth, and we cannot immediately abandon old fossil fuel energy technologies without abandoning growth, and so we have had to await new energy infrastructure and technologies that cannot just replace fossil fuels, but provide the basis for increasing available energy indefinitely. Under these conditions, it is perfectly reasonable to ask whether this high-energy global production system, much of it dedicated to creating wasteful

²⁷⁷ Natasha Geiling, "Declining coal means flat emissions for a third year running," *Think Progress*, November 14, 2016, <https://thinkprogress.org/global-carbon-emissions-flat-three-years-34b4f6b159bd#.uxh5m4d91>

²⁷⁸ It is difficult to truly conceive of the massive amount of energy required to power global capitalist production in all its complexity. In 2013, world total primary energy supply was 13,555 million tonnes of oil equivalent (with 13.5% of that coming from renewables), but I have to admit that is a figure so large as to be too abstract to grasp. (IEA, *Key Renewables Trends: Excerpt from 'Renewables Information'* (IEA 2015), 3, https://www.iea.org/publications/freepublications/publication/RENTEXT2015_PARTIIExcerpt.pdf). There are some visualizations that perhaps make things more intelligible. Ecofys has put together a flowchart (inspired by an older one from The World Resources Institute) visualizing the sources of greenhouse gas (coal, oil, gas, and direct emissions from livestock, land use change, and waste), how much of them each sector of the economy uses, and how much of each greenhouse gas (CO₂, methane, etc.) results. (See "World Greenhouse Gas Emissions: 2000" (World Resources Institute, 2000); and "World GHG Emissions Flow Chart 2010" (Ecofys, 2013) <http://www.ecofys.com/en/news/updated-information-on-the-worlds-greenhouse-gas-emissions>).

See also Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (Brooklyn, NY: Verso, 2016) 279-292.

luxury goods (and creating want for them), is actually required for people's wellbeing—but that is not a question that is compatible with capitalism. Where the world may now need to choose between capitalist growth and a safe climate, this filter ensures that the only solutions being considered are the ones insisting that these are not mutually exclusive goals. One of the most chilling passages I came across was written, in the understated style characteristic of climate science, by climate modellers Anderson and Bows:

There is now little to no chance of maintaining the rise in global mean surface temperature at below 2°C, despite repeated high-level statements to the contrary. Moreover, the impacts associated with 2°C have been revised upwards sufficiently so that 2°C now more appropriately represents the threshold between dangerous and extremely dangerous climate change.²⁷⁹

They were forced to reach this conclusion after being unable to find greenhouse gas emission reduction scenarios where (1) global average temperatures did not rise past 2°C, (2) where advanced industrial countries' emissions peaked first to give developing countries additional time to develop with cheap fossil fuels, and (3) *where the emissions reduction necessary did not reduce economic growth below acceptable levels*. No scenario met all three criteria. (Worse, the 2°C limit “there is now little to no chance” of meeting is probably insufficient to prevent dangerous climate change.)

What is more, capitalist solutions to climate change must not just yield profits, but must also do so in the short-term, further constraining the ultimate range of solutions considered at state and international levels. SunEdison Inc., which quickly grew to become the world's largest renewable energy developer and first great renewable energy success story, is now the world's first great renewable energy bust, filing for bankruptcy in early 2016. Green-industry press was careful to note SunEdison's failure was due to poor management decisions, not to an inherent

²⁷⁹ Kevin Anderson and Alice Bows, “Beyond 'dangerous' climate change: emission scenarios for a new world,” *Philosophical Transactions of the Royal Society* (2011): 41.

failure in the solar industry. But this misses the larger point. Switching to a different energy system has species-survival implications, and it is a strange thing to turn so much of that task over to entities that *must* operate on a model yielding high short-term shareholder returns. It is logically similar to delaying full mobilization against an invading army until conditions allow capital to profit in the process.

3.7 Market Valuation

What is the value of a safe climate? Of the continued health of an ecosystem adapted to the prevailing climate? Of the human lives and livelihoods that will be disrupted, even destroyed, by the effects of climate change? Capitalism is capable of determining a value only for goods and services that are exchanged within the market, and so answers to these questions—which are now hardly trivial or merely philosophical—are largely filtered out of policy discussions about solutions to climate change; by virtue of not passing through the market, these values are rendered invisible.

This has important effects. The 2°C target actually entails damage to ecosystems, serious risks of extreme weather events, and even the onset of a new climate regime—and therefore risks for vulnerable human and non-human communities. The choice of this target was not one made, then, with the goal of avoiding all deleterious effects of climate change; some degree of climate change is evidently acceptable. Implicit in this choice is a calculation weighing the cost to the global (capitalist) economy of curbing GHG emissions against the cost of damages from not curbing them. Cost-benefit analyses can, alternatively, attempt to determine the value of damage avoided by action on climate change. But whichever of these alternatives is used, any such analysis under a market framework will fail to capture the value of that which does not enter into the market, like the items raised in the questions above.

In this sense, the apparent high costs to the economy of transitioning *very rapidly* to clean energy technologies or drastically reducing growth and production were always false—but, unfortunately, only in this sense. While they would help preserve a safe climate, and the ecosystems and communities dependent on its preservation—which are not valueless, but quite literally *invaluable*, beyond our capacity to value—solutions like these do in fact, *under the current market valuation system*, have a higher cost relative to benefits than they would in an alternative system capable of recognizing their value, and are thus filtered out.

4. Conclusion

In the introduction of this dissertation I highlighted what I called a “proviso of far-reaching climate justice.” I noted that the climate crisis makes the continued commitment to our dominant political and economic institutions open to challenge and transcendence if (1) they can make only weak claims to having created a just society and (2) if they constrain just responses to the climate crisis. I believe the conceptual model I presented in this chapter gives good cause to believe condition (2) to hold.

I have argued that the narrow range and, in light of the severity of the crisis, peculiar character of solutions to the climate change crisis being seriously considered at state and international levels—carbon taxes, emissions trading, and regulations, all supported by technology promotion policies meant to meet too-weak emissions reductions targets—are a result of the normal functioning of representative democracy and capitalism, liberalism’s preferred institutions for realizing its core ethic, which impose a system of filters through which any solution must successfully pass. The filters created by representative democracy and capitalism do not have as their singular goal the ultimate selection of the best, most certain, most just solutions to preserve a safe climate. Rather, they are solutions that preserve the climate largely as a condition of preserving the capitalist system and

the political fortunes of those governing elites tasked with enacting those policies. These policies have not been democratically selected in any participatory sense, entail little risk to the fortunes of political representatives, and are consistent with capitalism's need for short-term profits for private owners in values visible in the market. This system of filters also serves to diminish the degree of direct support a population can give to any of the solutions. Because of them, the kind of binding and just climate deal demanded under climate-justice-as-climate-ethics does not materialize and neither do the more ambitious and complex demands for accountability made by the climate movement.

In the next chapter, I show that condition (1) of the proviso, that liberalism can make only weak claims to having established a just society, holds as well. Even if it could somehow succeed in preventing dangerous climate change, the society that a climate response along liberal lines would usher in carries forward several significant problems into a post-carbon world and responses from alternative frameworks can make stronger claims to building a more just society while also working around some of the liberalism's filters.

V. Climate Justice as Just Society

1. *Three Climate Kōans*

We saw in the previous chapter that, through the assurances offered by capitalism and liberal democracy, liberal theory makes claims to having resolved the biggest problems in realizing a just society and offering the best humankind can achieve. At the outset of this chapter, let us (briefly) try to imagine the outlines of that liberal order projected forward in time, the future of the end of history.

For the sake of argument, let us be charitable and assume a scenario in which liberal solutions actually stave off the truly catastrophic. What would the world on the other side of the climate crisis look like if we solve it using the full complement of liberal solutions, but also accept the logic it preserves? What is a post-carbon world raised in the cradle of a liberal order? And, if the solutions permissible under the liberal framework save the planet but lock in an unjust society, why should we pursue the response under that framework?

Let us approach these questions by briefly identifying three evocative problems to use to contemplate dimensions of the liberal response to be wary about. They are a bit like *kōans*, puzzles meant to break the spell of accepted wisdom, in this case the wisdom suggesting that a sufficient response to climate change needs only swap fossil fuel energy for renewable energy. If resolving climate change is understood as an effort to do only that instead of an effort to redefine how we live—if we fail to see the injustices climate change reveals—there is a risk of carrying over some serious problems into the world on the other side of the climate crisis. All told, the *kōans* warn of a future of continued alienation, empty commodity consumption, continued non-democratic control over the economy, and diminishment of non-human nature that is not subject to the logic of the liberal order.

These problems arise from the fact that, far from being transformative, the solutions that the liberal system seems ready to accept commit us uncritically to a

near-status quo. Together, the kōans sound a warning about the intersection of liberal democracy, capitalism, and the logic to which they will subject advances in clean technology. Nothing about the most dominant solutions shows any break from economic patterns that were already driving the ecological crisis before climate change came on the scene. Nothing about them shows any inherent system-transformative or emancipatory quality.

What this suggests is that when movements push for clean energy technologies, they need to be cautious how they do so. Renewable energy acts as a kind of common denominator unintentionally linking opposed political projects. Demands for renewable energy with the intention that it will be *system transforming* merge easily with demands for renewable energy that are *system preserving* because the technologies are the same in either case. The key difference is who controls decisions over the production of those technologies and the logic those decisions are embedded within, which will determine what the energy they provide will be used for. As they are processed by the liberal complex's machinery, existing power relations channel the call for renewable energy towards system-preserving ends.

Kōan 1: Fossil-Free Alienation

Under the liberal order, renewable energy must preserve the project of perpetual economic growth. But just what does that economic project do for workers, many of whom lead work lives characterized by dissatisfaction, precarity, and a sense of purposelessness?²⁸⁰ A fossil-free transition can still lead to a world of *fossil-free*

²⁸⁰ The 2013 *Gallup* global report on job satisfaction gives a window into that system. The report places workers into 3 categories depending on level of satisfaction at work: 1) the *engaged*, who are passionate and connected to their company; 2) the *not engaged*, who are unhappy or “checked out” and “sleepwalk” through the workday, dedicating neither energy nor passion, just time; and 3) the *actively disengaged*, who seek to undermine or damage their companies through theft, sabotage, or absence. Globally just 13% of workers were actively engaged in their jobs. The closest the world came to a workers’ paradise was in Canada and the US where fewer than one in three people (30%) were among the engaged—that is, those actually enjoying the activity that occupies most of their time and the most productive years of their lives, and that they spent their formative years preparing for. Bleak, certainly, but that was nothing compared to East Asia where the

alienation and a fossil-free dystopia. This dystopia is a place where the response to climate change fails to include within it any measures to address quality of work life under capitalism. Here, the energy transition opens up employment in the green jobs sector, which absorbs workers facing diminishing job prospects in the fossil fuel sector. But workers here and in other sectors do not, as a rule, gain greater control over their conditions of work; nothing like widespread economic democracy in the workplace comes about, and people remain actively disengaged, unchallenged and unappreciated in their work, or perhaps they are overstressed, dealing with bosses from hell serving at all costs the profit imperative. Pollution-free electric cars drive workers on long commutes to hated jobs. In constant precarity,²⁸¹ workers search desperately for the next temporary contract job on employment websites hosted on servers powered by renewables, just like the computers that carry out job-destroying automation. The global division of labour in commodity production retains its current structure. Sunlight powers the panels on the roofs of the sweatshops northern corporations outsource their operations to. Renewable energy saves human civilization, but is it the version of civilization we wanted saved?

system of growth has provided a whopping 6% of workers with jobs they enjoy but 26% with jobs they actively disengaged from. Gallup, *State of the Global Workplace: Employee Engagement Insights for Business Leaders Worldwide* (2013); Steve Crabtree, "Worldwide, 13% of Employees Are Engaged at Work," *Gallup*, October 8, 2013, <http://www.gallup.com/poll/165269/worldwide-employees-engaged-work.aspx>

²⁸¹ Guy Standing has probably done the most to draw attention to the class-in-the-making he calls the *precariat*. The precariat has several defining characteristics: insecure jobs interspersed with periods of unemployment; diminishing access to non-wage income and benefits and to state-guaranteed rights; a lack of occupational identity and control over time; detachment from labour; low social mobility; over qualification; and high levels of uncertainty (Guy Standing, *A Precariat Charter: From Denizens to Citizens* (New York, NY: Bloomsbury, 2014), 16-28). To be part of the precariat is to experience the "four A's": *anger* (at how the ways for improving chances at a meaningful life are blocked), *anxiety* (due to high employment and income insecurity), *anomie* (a listlessness due to a sense of constant defeat), and *alienation* (due to leading an existence for someone else). Hardly some insubstantial proto-class, Standing estimates the precariat occupies about a quarter of the adult population in many countries. Standing, *The Precariat*, 33-41.

Kōan 2: The Problem of the Solar-Powered Invisible Hand

Renewable energy is making impressive market gains, and those successes are bringing to prominence a particular discourse to be wary of.²⁸² A 2015 CBC news item, “How market forces are winning the climate change battle,” is a telling example.²⁸³ Its writer’s starting point is that 2014 was the first time ever that the global economy grew without a corresponding growth in GHG/CO₂ emissions, a triumph of the entrance of renewables into the market and (thanks to the their fall

²⁸² See, e.g., Joe Romm, “You’ll Never Believe How Cheap New Solar Power Is,” *Think Progress*, July 18, 2016, <http://thinkprogress.org/climate/2016/07/18/3797907/solar-energy-miracle-charts/>; Ed King, “Solar is now cheaper than coal, says India energy minister,” *Climate Change News*, April 18, 2016, http://www.climatechangenews.com/2016/04/18/solar-is-now-cheaper-than-coal-says-india-energy-minister/?utm_source=Daily+Carbon+Briefing&utm_campaign=81551b9fc5-cb_daily&utm_medium=email&utm_term=0_876aab4fd7-81551b9fc5-303423917; Fiona Harvey, “Global coal and gas investment falls to less than half that in clean energy,” *Guardian*, March 24, 2016, <http://www.theguardian.com/environment/2016/mar/24/global-coal-and-gas-investment-falls-to-less-than-half-that-in-clean-energy>

²⁸³ Don Pittis, “How market forces are winning the climate change battle,” *CBC News*, March 17, 2015, <http://www.cbc.ca/news/business/how-market-forces-are-winning-the-climate-change-battle-1.2996818>.

And there are further examples. “Far from posing a fundamental problem to capitalism,” climate economists Gernot Wagner and Martin L. Weitzman write, “it’s capitalism with all its innovative and entrepreneurial powers that is our only hope of steering clear of the looming climate shock.” *Climate Shock: The Economic Consequences of a Hotter Planet* (Princeton, NJ: Princeton University Press, 2014), 151.

The Director-General of the International Renewable Energy Agency penned a piece in *The Guardian* promising continued GDP growth on into the future. As he put it, “For many years, climate action was synonymous with sacrifice. It was a matter of what countries and individuals would have to “give up” to reduce emissions and save the planet. Now, thanks in part to the growing business case for renewable energy, climate action is increasingly being seen as a means to create jobs, boost GDP growth, and improve livelihoods, even in oil rich countries. In this context, there really is no choice to make.” Adnan Z. Amin, “Renewables are changing the climate narrative from sacrifice to opportunity,” *Guardian*, November 19, 2015, <https://www.theguardian.com/environment/2015/nov/19/renewables-are-changing-the-climate-narrative-from-sacrifice-to-opportunity>.

The Senior Advisor for Climate Change, Energy and Environment to former Australian Prime Minister Julia Gillard wrote a similarly sanguine piece about capitalist forces and climate change in *The Guardian*. As she puts it, “It might seem deflating or unethical, but someone has to get rich reducing carbon pollution. Just as new business models developed with the end of the African slave trade or the introduction of water restrictions, threats to vested interests are opportunities for others. The particularly good news in the case of climate change is that a lot of that money is going to be made bringing clean energy to people who don’t have it today or reducing the amount of energy the rest of us use. That means solar powered lights in Africa, electric buses in Brazil, cleaner cookstoves in Cambodia, and yes, some fat banker bonuses in London, Songdo and Beijing.” Gabrielle Kuiper, “It might seem unethical but someone has to get rich fighting climate change,” *Guardian*, February 5, 2015, <http://www.theguardian.com/commentisfree/2015/feb/05/it-might-seem-unethical-but-someone-has-to-get-rich-fighting-climate-change>.

in price) their growing role in providing energy. He tells us, “The great thing is that the capitalists aren't just doing it for the sake of the planet, though that may be part of the personal motivation for those who work at these companies. They are in it for the profit.”

Notice the logic: there is no need to trust people's moral motivations, always fallible; the invisible hand is what is truly reliable and will come through, as ever. One hears echoes of Adam Smith: *It is not by the benevolence of the solar-panel entrepreneur, the wind-turbine maker, or the battery manufacturers that we expect our daily clean energy...*

Let us call this, then, the problem of the *solar-powered invisible hand*. Its point is to draw attention to how, as they take on an increasingly large and legitimized role in the climate response, capitalist market forces sideline alternative responses. Those alternatives often hold an emancipatory potential, but require democratic participation in determining the nature of a more sustainable and just economy and society, a matter I turn to in the later part of this chapter.

The possibilities created by carbon-free capitalism detract from that possibility and recast the moral narrative about climate change in a way that complements the liberal consensus about minimizing systemic changes to take on climate change. Industrial leaders with a bold enough vision to do what is right can tap into humanity's infinitely plastic genius to bring to the market the futuristic technologies that will save us—and they can do so competitively. They offer people hope, not through the ability to collectively make decisions about economies, but through more depoliticized avenues like engineering and entrepreneurship.²⁸⁴ And

²⁸⁴ Consider the remarks of Shawn Otto, science author and public advocate for science in politics who organized the first scientific debate between American Presidential candidates in 2008 (emphases mine). “Honestly, I think we're past the point where the climate is going to be like it is now. Even if we stopped emitting right now, we've got a hundred years of climate change already built in. The Earth's climate system has so much inertia that it's like the Titanic and we're paddling with canoe paddles to try and avoid that iceberg [...] But what makes me hopeful is things like Tesla, engineering. [...] I bought a Tesla even though I can't really afford it, but *I can't really afford not to*. Because I think that science and technology broke that zero-sum game from Thomas Hobbes' time when he wrote essentially that without a common authority men fell into war and that for me to get

maybe side-by-side with a government willing to apply a carbon tax (and even some

ahead in economics I'd have to take from you somehow. Science changed that and we are still thinking in terms of what we will lose in order to solve the climate change problem. And I think that we—and by “we” I mean scientists, I mean environmental groups, and I think society at large—have to really start communicating in terms of what we gain. And what we gain for instance with Tesla is a faster, higher performing car that has no carbon pollution, and that's worth a whole lot as far as an investment goes. And those kinds of things, that capacity of the human imagination to solve problems, to *invent our way out of this*, is where I think our future will be saved.” Shawn Otto. “Science Under Siege. Part 3.” *CBC Ideas* (Audio). Otto made these remarks in a CBC Ideas podcast on the deepening of scientific illiteracy and the underfunding and muzzling of scientists, where he is positioned as the measured voice of reason.

Note how for Otto the climate crisis, far from requiring us to think about whether a good life can be achieved with *less*, is best tackled by emphasizing how much *more* we get out of the response—new, futuristic commodities that we “can't really afford not to” buy—thanks to science and technology. Tesla is a symbol of hope. It gives people an example to *fixate* on, to show that maybe we really can “invent our way out of this.”

It is perhaps too much of a digression to pursue in full, but it is worth mentioning that, in the response to climate change, Tesla is perhaps the preeminent example of where capitalism intersects with that current of liberalism concerned with scientific and technical advancement. For the futurologist and the technophile, it offers much to get excited about, standing as the model of all the right kinds of progress. MIT even declared it 2015's smartest corporation in the world (“50 Smartest Companies 2015,” *MIT Technology Review*, <http://www.technologyreview.com/lists/companies/2015/>). Tesla product showcases—like the one for its PowerWall home energy storage system in spring of 2015—are greeted with media coverage and fanfare similar to the ones Apple receives. Its Model S luxury sedan receives universal praise from car reviewers and aficionados. It comes with proto self-driving capabilities and its performance can be upgraded through over-the-air software updates. There are scores of YouTube videos of the Model S P85D beating upscale fossil fuel sports cars in drag races.

Tesla's popularity is not only due to clever marketing or high-quality products, but also its humble and charismatic young visionary CEO, multi-billionaire entrepreneur Elon Musk who has a devoted following and fanship. (For a good example of the kind of praise Musk generates, see the multi-part series on Musk (which Musk commissioned) by Tim Urban on the blog *Wait But Why*. For part 1, see Tim Urban, “Elon Musk: The World's Raddest Man,” *Wait But Why*, May 7, 2015, <http://waitbutwhy.com/2015/05/elon-musk-the-worlds-raddest-man.html>). He has expressed worries about the fate of the planet, noting that humanity is conducting “the dumbest experiment in history, by far” by continuing to use fossil fuels, and sees Tesla (which in summer 2016 announced plans to acquire Musk's other company SolarCity, the largest installer of residential rooftop solar panels in the US) as his contribution to ending that experiment. Musk has also been calling for a carbon tax alongside a “popular uprising” against the fossil fuel industry. See Stephen Lacey, “The Benefits and Drawbacks of Tesla's Plan to Acquire SolarCity,” *Greentech Media*, June 21, 2016, <https://www.greentechmedia.com/articles/read/The-Benefits-and-Drawbacks-of-Teslas-Proposed-Acquisition-of-SolarCity>; Jason Koebler, “Elon Musk: Burning Fossil Fuels Is the 'Dumbest Experiment in History, By Far',” *Motherboard*, March 26, 2015, <http://motherboard.vice.com/read/elon-musk-burning-fossil-fuels-is-the-dumbest-experiment-in-history-by-far>; Lenore Taylor, “Elon Musk says robust carbon tax would speed global clean energy transition,” *Guardian*, December 3, 2015, <http://www.theguardian.com/environment/2015/dec/03/elon-musk-says-robust-carbon-tax-would-speed-global-clean-energy-transition>; and Rafi Letzter, “Elon Musk thinks we need a 'popular uprising' against the fossil fuel industry,” *Business Insider*, November 3, 2016, <http://www.businessinsider.com/elon-musk-popular-uprising-climate-change-fossil-fuels-2016-11>.

corporate subsidies), they will defeat, in the market arena, the sectors of capitalism that are attempting to keep us addicted to fossil fuels and the destructive technologies of the past.

What climate change revealed about capitalism and the need for those projects that are emancipatory and simultaneously respect ecological limits (see Kōan 3 below) gets obscured. Instead, it is as though all along the problem was that not enough billionaire entrepreneurs were given the right incentives to invent and sell us citizens-cum-consumers the right commodities. To be sure, the issue is not that clean-tech entrepreneurs should not play a role in the climate response. Rather it's that in legitimizing a large and prominent role to corporate actors, the problem of climate change is reduced, simplified, evacuated, to one in which it is difficult to find any other real role left for democracy or politics—or justice—in envisioning and creating a new and more sustainable economy and society.

Kōan 3: The Global Manhattan

In his book investigating whether and under what conditions political liberalism can be made environmentally sustainable, Marcel Wissenburg evokes a striking image: the “Global Manhattan” (without the Central Park). A Global Manhattan would be the result of people preferring, as part of their freely chosen plans of life, built human systems over natural ones—a *full* or *extreme* substitution of nature—so long as those artificial systems sustainably meet human needs. And, theoretically, it is perfectly compatible with liberal-democratic principles, Wissenburg tells us, as long as that world is selected by people's non-coerced preferences.²⁸⁵

We can anticipate two logics under the liberal order that could open the path to the Global Manhattan, a world depleted of non-human nature. First, fossil fuels allowed for a historically unprecedented era of economic growth predicated on

²⁸⁵ Marcel Wissenburg, *Green Liberalism: The Free and the Green Society* (UCL Press, 1998), chapter 9.

wasteful and environmentally unsustainable commodity production and consumption, now on a global scale. But, rather than eliminate this logic, the liberal transition to a post-carbon era seeks ways to renewably power it. If successful, it will carry over into a post-carbon era as much of the current society as possible—even that which was part of the high-consumption, high-energy economic patterns of excess and waste already driving the ecological crisis before climate change.²⁸⁶

Second, we should anticipate that the liberal order might seek to address climate change through capital-intensive technologies that replace ecological services. In the realm of adaptation, we see it in projects like a California desalination plant designed to increase water supply as its glaciers dry and it experiences more frequent and severe droughts.²⁸⁷ In the realm of mitigation, we

²⁸⁶ An earlier draft referred to this as *the problem of the electric race car*. There are few better examples of carbon-fuelled waste and excess than automotive racing and the larger car culture it belongs to, and yet there are signs that both are in the process of being rescued from the chopping block. The point of this koan was not to single out racers or car aficionados but rather to draw attention to a powerful symbol allowing one to reflect upon a broad, ongoing approach to the climate crisis. Because the race car is a kind of “apex luxury” of the fossil fuel era, the problem it generates is inclusive of other, less extreme luxuries. If something as eminently expendable as a race car is to be part of the post-carbon society, then there is no reason that even more mundane commodities shouldn't be (discount-priced airfare for long-distance vacations to all-inclusive resorts quarantined from the local population, for instance.) The electric race car is thus a powerful emblem of a desire to sacrifice nothing. Instead of seeing in the climate crisis a need to rapidly expand affordable public transit, the electric race car gives us the reassurance that if its kind of excess is still possible and permissible even more minor excesses are too. With it comes the rest of cult of the personal automobile. BMW, automaker to the elite, is reportedly planning on making an all-electric version of its luxury i8 (currently only a hybrid). Porsche—automaker to the *super-elite*—expects to have a high-performance electric car in production by 2019. Audi plans to release a luxury electric model every year starting in 2018. Tesla, the future-bringer corporation, has adopted a different profit-making strategy, seeking to roll out electric cars for the middle class in a few years following sales to an upper stratum of consumers. It expects to produce half a million cars by 2018, a million by 2020. Alice Truong, “Porsche is showing off an electric sports car that could take on Tesla,” *Quartz*, September 14, 2015, <http://qz.com/501986/porsche-is-showing-off-an-electric-sports-car-that-could-take-on-tesla/>; Kirsten Korosec, “Audi Plans to Launch a New Electric Vehicle Model Every Year,” *Fortune*, May 12, 2016, <http://fortune.com/2016/05/12/audi-plans-to-launch-a-new-electric-vehicle-model-every-year/>; Kshitiz Goliya and Alexandria Sage, “Tesla puts pedal to the metal, 500,000 cars planned in 2018,” *Reuters*, <http://www.reuters.com/article/us-tesla-results-idUSKCN0XV2JL>

²⁸⁷ HydroRevolution, a subsidiary project of private water producing firm WaterFX, is a commercial desalination plant that earned some media buzz in the midst of California's recent years-long drought. Unlike other desalination projects, HydroRevolution is entirely solar powered, meaning we can adapt to climate change without adding to the crisis. Projected to generate 1.6 billion gallons of fresh water per year from salinated irrigation drainage—enough for 10,000 homes or

will see more “negative emissions” technologies, industrial-scale technologies that strip the atmosphere of excess carbon, which have increased in prominence as it has become clear the world is going to blow past the carbon budget.²⁸⁸ By legitimizing the application of private technologies to control climate, they open possibilities for technologies that operate on a larger, planetary-scale: *geoengineering*. For now, there is much trepidation about it, even among liberal voices,²⁸⁹ but geoengineering technologies are merely a change of scale, not kind, and their application is consistent with this logic.

The spectre of the Global Manhattan urges a reconsideration of the consequences of responding to climate change primarily through technology in a

2,000 acres of cropland—HydroRevolution is a sterling example of a kind of approach to the climate crisis that we should pay attention to. It is an approach that makes a badly desired promise while suppressing the larger warning climate change sounds about the system at the root of the crisis: technology can substitute for important ecosystem services whose capacity has been overshot, in this case, by an irrational, wasteful commercial agriculture system already stressed even before the loss of California’s glaciers. Ari Phillips, “Have You Heard Of Solar Desalination? If Not, You Will Soon,” *Think Progress*, July 23, 2015, <http://thinkprogress.org/climate/2015/07/23/3682598/first-commercial-solar-desalination-plant-in-california/>; In September, 2015, it began offering shares. See Derek Markham, “California’s First Commercial Solar Desalination Plant Offering Shares Through DPO,” *Clean Technica*, September 10, 2015, <http://cleantechnica.com/2015/09/10/californias-first-commercial-solar-desalination-plant-offering-shares-through-dpo/>

²⁸⁸ For some discussion on negative emissions, see Kevin Anderson, “Duality in Climate Science,” *Nature Geoscience* 8 (2015): 898-900; Andy Skuse, “The Road to Two Degrees, Part One: Feasible Emissions Pathways, Burying our Carbon, and Bioenergy,” *Skeptical Science*, November 16, 2015, <http://www.skepticalscience.com/TRTTDRCP26.html>; “Explainer: 10 ways ‘negative emissions’ could slow climate change,” *Carbon Brief*, April 11, 2016, <https://www.carbonbrief.org/explainer-10-ways-negative-emissions-could-slow-climate-change>; James Hansen et al., “Young People’s Burden: Requirement of Negative CO2 Emissions,” *Earth System Dynamics* (Discussion Paper) (2016); Simon Evans, “UK launches ‘world first’ research programme into negative emissions,” *Carbon Brief*, April 21, 2017, https://www.carbonbrief.org/uk-launches-world-first-research-programme-into-negative-emissions?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+carbonbrief+%28The+Carbon+Brief%29

For Tim Flannery, author of *The Weathermakers*, one of the all-time most popular mass-market books written on climate change, it is these industrial carbon removal technologies that gave him hope after a long period of despairing that the world could not resolve the climate crisis. Tyler Hamilton, “Finding hope within the doom and gloom of climate change,” *Toronto Star*, October 28, 2015, <https://www.thestar.com/news/world/2015/10/28/finding-hope-within-the-doom-and-gloom-of-climate-change.html>

²⁸⁹ Joe Romm, “Anti-‘Geoengineering’ National Academy Report Opposes ‘Climate-Altering Deployment’,” *Think Progress*, February 10, 2015, <https://thinkprogress.org/anti-geoengineering-national-academy-report-opposes-climate-altering-deployment-bc1cf14fbd2d#.df7qa1d0g>

liberal order, which has very few limits on how much of the natural world can fall under its logic. It presents a warning of what might occur if the belief persists that the good life is achieved through consuming the excesses of production under liberal capitalist modernity and if those excesses can only be sustained at the cost of natural systems and their substitution with built systems. In other words, it gives a sense of what world might exist if dominant political and economic institutions cannot recognize a non-instrumental value to non-human nature—the world to be expected under the reigning liberal order.

* * *

Together, the three kōans raise questions about what kind of future will be realized under the liberal order even if the climate crisis is resolved. They suggest that the world would carry over onto the other side of the climate crisis a search for the good life through commodity consumption requiring rapacious resource development; the legitimacy of corporate control over production and distribution of goods; work lives without meaning; continued encroachment on natural limits; and the notion that technology development and application outside of democratic control can save us from it all. It is a dynamic predicated on a vision that has no concept of sufficiency, no final vision of where progress and development are supposed to take us, no end. Rather, there is a state of perpetual anticipation of breaking through new technological frontiers, which is another way of saying there is constant dissatisfaction with what we are, what we know, what we have, what our bodies can do, where we can go when we want. But climate change, properly responded to, could be an opportunity to put this dissatisfaction to an end. The rest of this chapter takes on how this could happen.

2. A Restatement of the Argument Thus Far

This dissertation opened by looking at two fronts in the struggle for climate justice. The first, *climate-justice-as-climate-ethics*, understood the issue in terms of equity—burden sharing among nations in taking action on mitigation, adaptation, and (possibly) compensation—and directed its focus towards the design of an ideal global climate treaty emerging from the United Nations Framework Convention on Climate Change (UNFCCC) process. The hope was that a post-Kyoto agreement would take on the shape of a legally binding treaty where countries of the global north would adopt the major duties in addressing climate change. As it became apparent in the wake of the 15th Conference of the Parties (COP15) in Copenhagen that no such agreement was imminent, this kind of ethical philosophical approach to climate justice hit a major barrier. It required states that (1) actually prioritize addressing climate change and (2) are concerned with accepting and honouring duties based in principles of justice. The agreement signed in Paris in 2015 does not really have the shape described by climate ethicists. Crucially missing is any mechanism that makes taking on duties legally binding. But justice is not an optional or voluntary act.

On the second front in the struggle for climate justice stands the highly complex climate movement, which directs its efforts at making democratic governments accountable to moral demands for action—*climate justice as political accountability*. A large part of the movement has come to see the UNFCCC process as largely moribund, and has therefore been pushing for more prominent and direct actions to press its demands on national and subnational governments—marches, blockades, divestment, and other tactics. But this movement, too, is constrained. To gain “friction” with policymakers, these demands cannot run counter to the prevailing institutional logic of the liberal order.

In sum, efforts to achieve progress in climate justice on these two fronts have crashed ruinously against the liberal order, described in chapter 4, that is currently characterized by powerful institutional logics that militate against the possibility of policies corresponding to what climate ethicists and movement activists believe justice demands. Under this order, even if the climate crisis were to be addressed (I believe it is prudent to at least allow for the possibility given the stunning fall in renewable energy costs), we risk taking on the problems I described at the outset of this chapter—fossil free alienation, the solar-powered invisible hand, and the global Manhattan. This leaves an unsettling dilemma. If the climate crisis cannot be addressed through the logic of the existing liberal order—that is, in ways that preserve capitalist economic growth and curtail participatory political and economic decision making—then the liberal order is unlikely to resolve it. Even if it *is* addressed through the existing institutional order, the world on the other side of the crisis will have carried over severe problems concerning liberalism’s ability to provide the conditions for a just society. We would have failed to satisfy a condition of far-reaching climate justice, which is to understand the climate crisis as a warning that our current economic and political institutions require change and as an opportunity to push for something more just.

In this closing chapter I will argue that in the struggle for climate justice, a third front of action needs much more attention. Its site of contestation is more abstract than those selected by climate ethicists (the just design of the UNFCCC) and by the climate movement (the accountability of political and economic elites). It is the realm of the very political philosophy that has come to justify the prevailing institutional logic that I argued is standing in the way of responding to climate change and whose solution to climate change commits us to an undesirable society. If attempting to address climate change through the liberal order is so fraught with problems, it follows that some other framework might provide better solutions. What this means is that the fight for climate justice has to include but extend beyond questions of alternative energy sources, international agreements, and pressuring

governments to take on climate policy. Let us call this third front seeking to identify and realize that framework *climate justice as just society*, and let us understand it, in taking on the nature of the political and economic system, as the first front to step *fully* into the realm of far-reaching climate justice.

One of the immediately obvious challenges in engaging in this site of contestation is that liberalism is currently ideologically hegemonic. Its promise of providing individuals the conditions to pursue their unique conceptions of the good life within a realm of possibility realized by a liberal democratic state and capitalist markets holds widespread acceptance. Whatever we wish to call this—“false consciousness” (after Marx) or the “one-dimensional society” (after Marcuse) or some equivalent term—it remains an obstacle. Some way is therefore needed to disrupt the liberal order’s legitimacy, its hold over the political imagination, and the idea that the order now in place is required for a good society—all as part of responding to climate change. That brings this dissertation into the realm of political philosophy and theory, the task for which is to inquire into the nature of that disruption, to base it in an approach making stronger claims to forming a more just society, and propose viable steps forward.

I aim to do that in this chapter. If the third front of climate justice involves a struggle to challenge liberalism, its claims to having secured the conditions for a good or just society, and its dominant framework for understanding and responding to climate change, then some alternative must come to replace it. I begin by quickly positing two such alternative political theoretical frameworks that can challenge liberalism on this third front of climate justice: (a) degrowth and what I will call (b) the eco-left. Alternative frameworks like these disrupt the hegemony of the liberal framework’s response to climate change by showing other possibilities unconstrained by the need to preserve capitalist growth and low-intensity democracies that promote a version of the good life maintained through commodity consumption. The challenge that follows is to make real the kind of society conceptualized under those frameworks.

Given the hegemonic status of liberalism and the system of filters it creates (chapter 4), it would be difficult to achieve a wholesale realization of these frameworks through the “front door” of lobbying, normal electoral politics, or even pressure tactics like the marches, divestment campaigns, and blockades discussed in chapter 3; demands made through these channels must tightly align with liberalism’s logic (achieve “friction”) or else end up being filtered out. One solution considered below is to organize a mass democratic movement around a set of transformative policy demands and find strategic political openings when the filters weaken. I use the Leap Manifesto which appeared in Canada in 2015 as a real-world example of how this can occur. Another solution is to soften up the liberal order and its ideological claims to having realized a just society by introducing elements into it that rewrite its logic. I pursue this idea through a heuristic device adapted from Saskia Sassen on how the organizing logic of societies can be rewritten from within to lead to epochal changes.

A couple words of caution before moving forward: first, what I am describing should be understood as projects intended for the advanced industrial countries, and ones that can be embraced by progressive forces within them. It is these countries that, in their pursuit of constant growth, have done so much to bring the climate crisis to where it now stands, but at the same time have arguably reached conditions where that growth (and the institutional apparatus to achieve it) can probably be abandoned without sacrificing wellbeing. Secondly, I have held to describing this project in political philosophical terms. There is still much work to be done at a more empirical level to determine how (and whether) all of these ideas can work together in a feasible and effective way. At this point, I am more concerned with the nature of these ideas and how they relate to the question of a just society capable of taking on the climate crisis.

3. Two Alternative Frameworks for Responding to Climate Change

The third front of climate justice involves a struggle for an alternative vision of society that can challenge or transcend the liberal order and its hegemonic framework for responding to climate change. There are two frameworks in particular that offer a plausible challenge: *degrowth* and the *eco-left*. For reasons of space, I will sketch them only in outline here as ideal types (in the real world, there is some overlap between them) before proposing how their visions might be realized.

Degrowth.²⁹⁰ Let us understand *degrowth* as describing a series of critiques arising from several sources—ecological economics, European anthropological studies, and environmental movements²⁹¹—united in their condemnation of the pursuit of perpetual economic growth as a means of improving and sustaining wellbeing in the developed economies. These critiques are thus diverse, and before describing them, it is important to note that a particular degrowth group or thinker may not embrace all of the elements in the description presented in what follows to the same degree.²⁹²

²⁹⁰ I am in this section synthesizing work from the following to outline the contours of the degrowth framework: Herman E. Daly, *Beyond Growth: The Economics of Sustainable Development* (Boston: Beacon Press, 1996); Peter A. Victor, *Managing Without Growth: Slower by Design, Not Disaster* (Northampton, MA: Edward Elgar, 2008); Tim Jackson, *Prosperity Without Growth: Economics for a finite planet* (London: Earthscan, 2009); Serge Latouche, *Farewell to Growth* (Malden, MA: Polity, 2009); Bill McKibben, *Eaarth: Making a Life on a Tough New Planet* (Toronto: Alfred A. Knopf, 2010); Konrad Ott, “Variants of de-growth and deliberative democracy: A Habermasian proposal,” *Futures* 42 (2012); Robert Skidelsky and Edward Skidelsky, *How Much is Enough? Money and the Good Life* (New York, NY: Penguin Books, 2013); Herman E. Daly, “Economics for a Full World” (*Great Transition Initiative*, June 2015), <http://www.greattransition.org/publication/economics-for-a-full-world>

²⁹¹ Joan Martínez-Alier et al., “Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm,” *Ecological Economics* 69 (2010): 1741-1747; Federico Demaria et al., “What is Degrowth? From an Activist Slogan to a Social Movement,” *Environmental Values* 22 (2013): 191-215.

²⁹² For a review of the different types of degrowth and how their contents differ, see Ott, “Variants of de-growth and deliberative democracy.”

Degrowth draws from a *social* critique showing that economic growth is no longer required to promote wellbeing in the advanced industrial economies. First, there is a diminishing effect of income growth on individuals' sense of wellbeing past a level of "sufficiency," one developed countries long ago moved beyond.²⁹³ Fervent pursuit of economic growth past a certain point not only has little positive effect on wellbeing, but can actually decrease it by imposing a lifestyle dominated by careerism, competition, and addictive hyper-consumption. Side effects of this lifestyle, like congestion, loss of leisure, pollution, stress from competition, and work precarity actually strip away at people's sense of wellbeing, effects of what Daly calls "uneconomic growth."²⁹⁴

Second, degrowth also tends to include a strong *environmental* critique. It draws on ecological economists' rejection of the conventional macroeconomic understanding of the economy as a closed loop of abstract exchange values (firms provide households with goods and services; households provide firms with factors of production) with little relation to or impact on the environment—regardless of how large that loop grows. The economy ought to be seen, more accurately, as an *open sub-system* ultimately 'nested' within a natural ecosystem. The perpetual pursuit of growth has increased the size of that economic subsystem as well as the degree of its impact by drawing down *services* and overwhelming waste *sinks*.²⁹⁵

The *environmental* critique of growth, which requires reductions in the scale and intensity of human use of the earth's systems, merges well with *social* critiques about the competitive, careerist, hyper-consumptive lifestyles growth demands of

²⁹³ Beyond that, two effects occur: in the first, *hedonic adaptation*, rising income leads to rising aspirations as people become accustomed to and then dissatisfied with their new standard of material wealth. In the second, happiness comes from increasing status relative to others through consumption of luxury goods, which is necessarily zero-sum. For a good summary, see Peter A. Victor, *Managing Without Growth: Slower by Design, Not Disaster* (Northampton, MA: Edward Elgar, 2008), 124-128.

²⁹⁴ Herman E. Daly, "Economics in a Full World," *Scientific American* (September 2005): 100-107; and Daly, "Economics for a Full World." To his examples we can also add financial crises sparked in the wake of reckless strategies to increase profit and austerity meant to restore growth's benefits to elites.

²⁹⁵ See, e.g., Daly, *Beyond Growth* and Victor, *Managing Without Growth*, 34-36.

us. Both critiques lead to an inquiry into alternative ideals that can form a basis for how the human good can be achieved without the intensive material and energy use characterizing hegemonic liberal visions of the good life based on endless development, consumption, and wealth accumulation.²⁹⁶ Ecological economist Tim Jackson rooted a vision of a just society that no longer required economic growth in the *capabilities approach* to justice (discussed further below), which he described as “flourishing within limits.”²⁹⁷

Again, speaking in terms of ideal types, if questioning growth makes this framework distinct from the liberal one, fixing the focus on growth is what distinguishes it from the eco-left, discussed below. The latter directs its critique, more fully, at capitalism and its various pathologies—corporate power and capture of democratic states, the violence of (neo)colonialism, worker exploitation, etc.—in the context of the climate crisis. Its implications are *necessarily* radical. Degrowth *can* hold left-wing/radical anti-capitalist implications²⁹⁸—just not necessarily, as some visions of it are achieved within existing institutional structures through reforms.²⁹⁹ Jackson, for example, says the following on the matter of the nature of a society no longer pursuing economic growth: ‘Is it still capitalism? Does it really matter? For those for whom it does matter, perhaps we could just paraphrase Star Trek’s Spock and agree that it’s “capitalism, Jim. But not as we know it”.’³⁰⁰

²⁹⁶ To briefly give examples of alternative ideals, Serge Latouche (*Farewell to Growth* (Malden, MA: Polity, 2009)) considers rooting degrowth in *autonomy* and *conviviality*. Robert and Edward Skidelsky (*How Much is Enough? Money and the Good Life* (Penguin Books, 2013)) argue that a good life without economic growth is found in *guarantees of the basic goods* of health, security, respect, personality (i.e., ability to pursue one’s life plans), harmony with nature, friendship, and leisure.

²⁹⁷ See chapter 9 of Jackson, *Prosperity Without Growth*.

²⁹⁸ See Serge Latouche, “Can the Left Escape Economism?” *Capital Nature Socialism*, 23 (2012): 74-78; Barbara Muraca, “Décroissance: A Project for a Radical Transformation of Society,” *Environmental Values* 22 (2013): 147-169.

²⁹⁹ See, e.g., Konrad Ott, “Variants of de-growth and deliberative democracy.”

³⁰⁰ Jackson, *Prosperity Without Growth*, 202.

Climate policy under the liberal framework is universally evaluated against its impacts on GDP growth.³⁰¹ But if the degrowth critique is correct, any negative impact of climate policy on economic growth overestimates its impact on wellbeing.³⁰² With the growth imperative abandoned, it is possible to make much sharper demands under this framework in the face of climate change,³⁰³ to call for a sharp decrease in working hours, an end to the hyper-consumption and hyper-production patterns requiring enormous and cheap energy, and more localized economies.³⁰⁴

Eco-Left.³⁰⁵ This second alternative framework encompasses several radical critiques of capitalism—from Marxism and anarchism on the far-left to democratic socialism just left-of-centre. Agreeing with the previous framework, the eco-left sees

³⁰¹ As Herman E. Daly has asked, “What is it that is causing us to systematically emit ever more CO₂ into the atmosphere? It is [...] our irrational commitment to exponential growth forever on a finite planet subject to the laws of thermodynamics. If we overcome the growth idolatry we could then go on to ask an intelligent question like, ‘How can we design and manage a steady-state economy, one that respects the limits of the biosphere?’ Instead we ask a wrong-headed, growth-bound question, specifically; ‘By how much will we have to increase energy efficiency, or carbon efficiency, in order to maintain customary growth rates in GDP?’ ” (Herman E. Daly, “Climate Policy: from ‘know how’ to ‘do now’,” keynote address to American Meteorological Society, Washington, D.C. (November 13, 2007), <http://www.climatepolicy.org/?p=65>).

³⁰² Jeroen C.J.M. van den Bergh, “Relax about GDP growth: implications for climate and crisis policies,” *Journal of Cleaner Production* 18 (2010): 540-543.

³⁰³ Clive Hamilton, *Requiem for a Species: Why we Resist the Truth about Climate Change* (Washington, DC: Earthscan, 2010); Peter Victor, “Growth, degrowth and climate change: A scenario analysis,” *Ecological Economics* 84 (2012).

³⁰⁴ See, e.g., Bill McKibben, *Eaarth*.

³⁰⁵ I am here synthesizing work from several sources. Vandana Shiva, *Soil Not Oil: Environmental Justice in an Age of Climate Crisis* (Brooklyn, NY: South End Press, 2008); Ian Angus (ed.), *The Global Fight for Climate Justice: Anticapitalist Responses to Global Warming and Environmental Destruction*. Nova Scotia: Fernwood, 2010); John Bellamy Foster, B Clark, and R. York, *The Ecological Rift: Capitalism’s War on the Earth*. New York: Monthly Review Press, 2010); Naomi Klein, *This Changes Everything* (Toronto: Alfred A Knopf Canada, 2014); Joel Kovel, *The Enemy of Nature: The End of Capitalism or the End of the World?* (Zed Books, 2002); Fred Magdoff and John Bellamy Foster, *What Every Environmentalist Needs to Know about Capitalism: A Citizen’s Guide to Capitalism and the Environment* (New York, NY: Monthly Review Press, 2011); Patrick Bond, *Politics of Climate Justice: Paralysis Above, Movement Below* (Scottsville, South Africa: University of KwaZulu-Natal Press, 2012); Paul Chatterton, David Featherstone, and Paul Routledge, “Articulating Climate Justice in Copenhagen: Antagonism, the Commons, and Solidarity,” *Antipode* 45 no 3 (2013); and Brian Tokar, “Democracy, Localism, and the Future of the Climate Movement,” *World Futures* 71 (2015).

consumption-fuelled economic growth as a powerful driver of environmental destruction, but extends its lens beyond growth to look at the system more holistically, identifying other destructive dimensions of capitalism. For one, it tends to hold a deeper and different analysis of the power inhering in the state-capital nexus, understanding the state as having been captured to a very large degree by the capital class, and having taken on the primary function of actively driving capital accumulation (exacerbated with the ascendance of free-market neoliberal ideology). The influence of the fossil fuel industry on politics; the corporate rights locked in by pro-corporate multilateral trade agreements preventing strong climate action;³⁰⁶ and the “false solutions” to climate change like emissions trading³⁰⁷ and REDD+³⁰⁸ therefore fall under particular scrutiny. The eco-left also includes stronger concerns with labour, anti-colonialism, and environmental justice than in other frameworks and will often highlight the importance of allying with these movements in the pursuit of climate responses.

An eco-left vision of a just society that could respond to climate change would require some level of confrontation with capitalism through a deepening and extension of democracy beyond the one inhering under the liberal order (particularly in a time of neoliberalism). In questions of climate policy, this would mean substantive participation from the *demos* in the setting of climate targets and the complex economic planning required to meet them. Again, there are different prospective shapes an eco-left project could take. But in its democratic socialist form, it would entail (at least in its initial stages) a return to strong economic planning, involving centrally, (1) radically progressive taxation regimes on

³⁰⁶ Klein, *This Changes Everything*, chapter 2.

³⁰⁷ See, e.g., Annie Leonard, “The Story of Cap & Trade,” Free Range Studios (2009), <http://storyofstuff.org/movies/story-of-cap-and-trade/>; Tamra Gilbertson and Oscar Reyes, *Carbon Trading: How it Works and Why it Fails* (Uppsala: Dag Hammarskjöld Foundation, 2009); and Durban Group for Climate Justice, “The Durban Declaration on Carbon Trading,” in *The Global Fight for Climate Justice: Anticapitalist Responses to Global Warming and Environmental Destruction*, ed. Ian Angus (Nova Scotia: Fernwood Publishing, 2011), 124-126.

³⁰⁸ See, e.g., Tom B.K. Goldtooth, “Why REDD/REDD+ is NOT a Solution,” in *No REDD: A Reader*, eds. Joanna Cabello and Tamra Gilbertson (Indigenous Environmental Network and Carbon Trade Watch, 2010), <http://noredd.makenoise.org/wp-content/uploads/2010/REDDreaderEN.pdf>

corporations and highest income earners to fund massive state reinvestment in the public sphere to make an extremely rapid switch to a post-carbon society and (2) strong state regulation on the fossil fuel sector. For measures like these to take hold, a battle of ideas must be won that delegitimizes the ideological basis of free-market capitalism and replaces it with one that rebuilds, in Klein's words, "the very idea of the collective, the communal, the commons, the civil, and the civic" and restores "the right of citizens to democratically determine what kind of economy they need."³⁰⁹

While alternative frameworks can help free the political imagination, their visions must be realized in the real world. The reigning system is unlikely to take them on wholesale; there is *currently* not enough institutional pliability to let them in through the "front door" of elections (to my knowledge, no viable mainstream western political party yet embraces either of those frameworks), mass marches, and so on. What the frameworks offer, however, are visions of what another society could look like, landmarks on the horizon to reorient towards, both requiring a substantive ideological shift away from our current path. How might that ideological shift begin to happen?

4. The Leap Manifesto: A Model for Loosening Liberalism's Constraints?

The Leap Manifesto³¹⁰ is one possible program of struggle against the reigning ideology that could pull us out from the logic of neoliberalism, and from there possibly onto a pathway to an even more progressive society. Initiated in spring 2015 by Naomi Klein and Avi Lewis (and others belonging to the team organizing politically around the *This Changes Everything* book, film, and website), the Manifesto's contents emerged over a two-day meeting "attended by 60

³⁰⁹ Naomi Klein, *This Changes Everything* (Alfred A. Knopf, 2014), 125, 460.

³¹⁰ "The Leap Manifesto: A Call for a Canada Based on Caring for the Earth and One Another," 2015, <https://leapmanifesto.org/en/the-leap-manifesto/>

representatives from Canada's Indigenous rights, social and food justice, environmental, faith-based and labour movements."³¹¹ Leap is a "justice-based" energy transition, as Lewis put it in a town hall meeting in Toronto in spring 2016.

The Manifesto itself, launched in September 2015, tells Canadians they are in a deep crisis and thus puts forward an urgent (hence, "leap") political project for a more progressive country—for "a Canada based on caring for the earth and one another." Its opening demand is for Canada to observe the inherent rights and land titles of Indigenous Peoples, and to fully implement the United Nations Declaration on the Rights of Indigenous Peoples. It rejects all new fossil fuel infrastructure and instead calls for a rapid shift to 100% clean power within the span of a generation. The transition itself would involve an expansion of renewable energy (to be controlled collectively by communities), energy efficient homes, new high-speed rail, affordable public transit, and reinvestment in public infrastructure to adapt for climate change. This shift would create employment opportunities that could also address systemic inequalities by prioritizing training for low-income communities and workers in carbon-intensive industries. A transition like this requires a rejection both of trade deals that limit policies governments can use to rebuild local economies or stop extractive projects and of austerity politics that insist Canada cannot afford this program. It demands polluter-pays policies: progressive taxes on carbon, wealth, and financial transactions, higher royalty rates, and an end to fossil fuel subsidies. But the Manifesto goes beyond renewable energy, calling for reinvestment in social sectors of the economy (much of it low-carbon and dominated by women) like education, healthcare, social work, arts and community-interest media; a debate on a universal basic income; localized and more ecological food systems; more welcoming immigration and refugee policies in recognition of Canada's contributions to drivers of migration like conflict and climate change; and a more proportional electoral system.

³¹¹ "Frequently Asked Questions about The Leap Manifesto," *Leap Manifesto*, <https://leapmanifesto.org/en/faq/>

Leap, then, is impressively broad, managing to unite struggles around Indigenous rights, unemployment, systemic racial discrimination, public sector underinvestment, migrant rights, and more, all undergirded by policies that also respond to climate change. But just how is the Leap meant to be realized? The Manifesto launched in advance of the 2015 Canadian federal election where it had little appreciable effect. But as Naomi Klein put it in a post-election defense,

the Leap is not about electoral cycles. It's a statement of principles that was always designed to push the debate, to create political space by articulating policies that correspond to the urgency of the moment. This is a traditional role for social movements in the political dynamic, influencing whoever is in power, moving the goalposts.³¹²

Progress on “influencing whoever is in power” will likely be constrained by the problems of the friction with the liberal order I discussed in chapters 3 and 4. But Leap becomes much more promising in its intention of creating “political space,” and it was in the aftermath of 2015 the election, at the spring 2016 national convention of Canada’s New Democratic Party (NDP) in Edmonton, Alberta, where the Leap Manifesto potentially found a way of doing this. The NDP was seeking new leadership and perhaps a new strategy following a disappointing 3rd place finish in the election following its move towards Canada’s political centre.³¹³ Though a non-partisan document, the Leap Manifesto finds a natural home in a humbled and diminished NDP seeking to restore progressive credentials. NDP riding associations recognized this opportunity to move past party-establishment politics and began to agitate for Leap after seeing a mass progressive movement organize around Bernie

³¹² Naomi Klein, “The Leap: Time For A Reality Check,” *This Changes Everything*, April 14, 2016, <http://theleap.thischangeseverything.org/the-leap-time-for-a-reality-check/>

³¹³ After its attempts to “modernize” by removing references to socialism in its policy documents and platforms, the NDP largely relinquished its position as Canada’s progressive party and entered into direct competition with the centrist (at least on Canada’s truncated and right-shifted political party spectrum) Liberal Party, which succeeded in mobilizing a now-unmoored left-progressive vote.

Sanders campaign for Democratic presidential nomination in the US.³¹⁴ They succeeded in getting Leap onto the agenda, but the party quickly found itself split by its content, in particular its call for a freeze on all new fossil fuel infrastructure and rapid shift towards a renewable energy future. Alberta's provincial NDP Party, which had a few months earlier unseated the generation-long reign of the Progressive Conservatives, rejected it, as did Albertan federal NDP members.³¹⁵ At the end of the convention, the federal NDP resolved to discuss and debate the Manifesto in its riding associations in the lead-up to its policy convention in 2018.³¹⁶

In the push from the party base to bring the Manifesto onto the agenda, there is a glimpse of how its content can create space in the political system. Because the NDP is seeking to rebuild, the filters that reduce the possibilities for democratic participation in the development of parties' political platforms may have weakened just enough in this case to admit policy suggestions from an energetic base. By making its demands a core around which to rally and build, a democratic movement might be able to usher into power political representatives beholden to that content. This strategy differs from that of seeking to achieve "friction" for their demands with those already in power, and presents an avenue for the radical current of the climate movement to see its complex demands for justice met. For a representative or a party to succeed in winning popular support, they would have to convincingly embrace the Manifesto and its ideals. And that is key. It possesses the important quality of falling within the order's logic (a party is elected to form a liberal democratic government), but the policies forming its core, if adopted, could begin to

³¹⁴ Naomi Klein, "Time for a Reality Check," *The Leap Blog*, April 14, 2016, <http://theleap.thischangeseverything.org/the-leap-time-for-a-reality-check/>

³¹⁵ Rachel Notley said "The Government of Alberta repudiates the sections of that document that address energy infrastructure. These ideas will never form any part of our policy. They are naive, they are ill-informed, and they are tone-deaf." (Michelle Bellefontaine, "Rachel Notley calls Leap Manifesto 'naive' and 'ill-informed'," *CBC News*, April 11, 2016, <http://www.cbc.ca/news/canada/edmonton/rachel-notley-calls-leap-manifesto-naive-and-ill-informed-1.3530309?cmp=rss>)

³¹⁶ Jason Markusoff, "The Leap Manifesto, and where the NDP will land," *Maclean's*, April 10, 2016, <http://www.macleans.ca/politics/ottawa/the-leap-manifesto-and-where-the-ndp-will-land/>; and Murray Cooke, "The NDP Convention: A Leap to the Left?" *New Socialist*, April 18, 2016, <http://www.newsocialist.org/815-the-ndp-convention-a-leap-to-the-left>

shift the ideological context in which policy decisions about climate change are made. Representatives may of course end up not following through, but they would do so at the risk of alienating the base that lifted them into power.

Predictably, Leap was poorly received in Canada's right-leaning mainstream press like *The National Post*, *Maclean's*, and *The Globe and Mail*.³¹⁷ But it has also attracted more considered critiques from Canadian public intellectual Thomas Homer-Dixon.³¹⁸ Homer-Dixon believes most Canadians would be "bewildered" by the Manifesto's content, wondering what common thread ties it all together. The solution to that puzzle lies in understanding what he believes are its two deep assumptions. The first is a "communitarian" assumption that others' wellbeing ought to be prioritized above our own, which, Homer-Dixon notes, "sidelines the individualist, the entrepreneur, or anyone who thinks that society's health depends on ensuring lots of space for people to exercise their agency and creative possibility." The second assumption is that capitalism is necessarily pernicious, undermining the health of society and driving the climate crisis, an assumption he believes is debatable, as capitalism might be "an essential source of the wealth and innovation needed to save humanity." As he concludes,

It's worth asking, though, if it's smart to make this debate central to action on climate change. The Leap Manifesto entangles efforts to move forward on climate policy with a host of other matters that are part of a larger ideological agenda. So it's a profoundly divisive document at the very moment when we need to find common ground on climate change.³¹⁹

The implications for society that Homer-Dixon sees in Leap and that lead him to reject it are striking because he is reading them into the manifesto—they are not

³¹⁷ Following the release of the Manifesto, *The National Post* wrote 24 articles attacking it. Maude Barlow, Mark Hancock, Joanna Kerr, and Katie McKenna, "Happy Leap Year To The National Post!," *The Leap Blog*, February 25, 2016, <https://theleapblog.org/happy-leap-year-to-the-national-post/>

³¹⁸ Thomas Homer-Dixon, "Start the Leap revolution without me," *Globe and Mail*, April 22, 2016, <http://www.theglobeandmail.com/opinion/start-the-leap-revolution-without-me/article29711945/>

³¹⁹ Ibid.

really present in it—and exposing some of his own assumptions. First, *does* Leap really subsume the individual to the community? Does care and concern for community necessarily lead to a situation where the individual is superseded, where, as he puts it, ‘“we” subordinates “I”?’ It would, but only under assumptions that individuals are not free if they are restricted in their accumulation and profit, that only by ensuring “lots of space” for the self-interested creative entrepreneur can we ensure that individuals are not subsumed. Homer-Dixon’s concept of the individual appears therefore to be a particular one, one aligning very closely with that of the capitalist individualist in which the measure of freedom is the degree to which one may venture and profit in the market. Under a conception of the individual like this one, Leap would then appear to be a communitarian document, as Homer-Dixon says. But before drawing that conclusion, there is an important question to ask. Should we not expect Leap’s policies of universal guaranteed incomes, reinvestment in social sectors of the economy, and employment opportunities aimed to address systemic inequalities to actually improve individuals’ ability to pursue their good life—to ensure “lots of space for people to exercise their agency and creative possibility”? Because here, too, is an understanding of the meaning of individual freedom, and it is one requiring a fairer society, one where more individuals are free to do the things that are meaningful to them, a society that does not leave some (actually many) individuals behind simply to preserve the full freedom of the entrepreneur.

Second, does the Leap really characterize *capitalism* as pernicious? The document never actually mentions *capitalism*, and its condemnation of corporate trade deals and austerity politics really suggest its target is *neoliberalism* (a focus that would be consistent with what Naomi Klein has said elsewhere about the kind of project needed to deal with climate change³²⁰). Nevertheless, the anti-capitalism

³²⁰ Naomi Klein, “No, We Don’t Need to Ditch/Slay/Kill Capitalism Before We Can Fight Climate Change. But We Sure As Hell Need To Challenge It,” *The Leap Blog*, September 27, 2014, <http://theleapblog.org/no-we-dont-need-to-ditchslaykill-capitalism-before-we-can-fight-climate-change-but-we-sure-as-hell-need-to-challenge-it/>

Homer-Dixon reads into the Manifesto rallies him to capitalism's defense, insisting it should not be up for debate in the context of climate change. But why must (neoliberal?) capitalism be part of, as he puts it, the "common ground" held on climate change? *Shouldn't* we be debating the economic system that has so far been incapable of taking ambitious and just action on climate change?

Perhaps not if our worldview is shaped by the assumptions of the liberal order. As policy content like that in the Manifesto finds ways of entering into mainstream politics it will trigger a reflexive rejection—liberal "antibodies" in the body politic—by those adhering to a vision of the just society requiring liberalism's preferred institutions. And this brings us to why I am focusing on Homer-Dixon. His critique is a well-considered example of the resistance to be anticipated in the ideological clash that follows from attempts to break with the hegemony of the liberal order as part of the climate response.

In spring 2016, I attended a town hall meeting in Toronto (facilitated by Avi Lewis, who played a major role in the drafting of the Leap Manifesto) intended to discuss the Leap Manifesto. Some of the loudest applause of the night was reserved for when the matter of proportional representation was raised, which I have to confess I found odd. Proportional representation is hardly the strongest challenge to the current system included in the Manifesto, and it is not at all clear why we should expect it to offer a decisive way out of the political morass producing only halting action on climate change. For instance, none of the major Canadian political parties strongly rejected tar sands development in the 2015 federal election, so...what exactly would proportional representation have changed? While Homer-Dixon reads elements into the Manifesto that were not really present, the crowd that night might have been reading too much into one of the elements that was.

The Leap Manifesto offers a lot of promise for escaping from the constraints of the neoliberal order—and beyond that, perhaps more—though how it plays out (at least in Canada) will likely have much to do with a number of factors, most immediately the results of the NDP riding association meetings leading up to the

party's 2018 policy convention. But it will also be interesting to see whether that tendency to read various meanings into Leap will continue as the manifesto enters further into the mainstream, and to see how that affects its fortunes. This interpretability could be due to the manifesto being perhaps too light on political philosophy and on the core ethic of the vision of the world it advocates. There is one strand in the manifesto's preamble, however, that gives an important glimpse as to what that core could be:

We could live in a country powered entirely by renewable energy, woven together by accessible public transit, in which the jobs and opportunities of this transition are designed to systematically eliminate racial and gender inequality. Caring for one another and caring for the planet could be the economy's fastest growing sectors. Many more people could have higher wage jobs with fewer work hours, leaving us ample time to enjoy our loved ones and flourish in our communities.³²¹

In the next section, I want to take that last part of Leap's preamble, the concern with human flourishing, and tie it in with some of my own thinking on how to respond to the climate crisis.

5. "Jumping Tracks": A Post-Growth Post-Liberalism?

Customarily, "What is to be done?" sections or chapters enumerate a long series of policy suggestions. This will not occur in the pages that remain. The main reason is that a lot of those policy suggestions would simply overlap with what is in the Leap Manifesto. As noted, Leap already outlines an impressively comprehensive program, providing linkages for an intersectional movement uniting struggles for racial equality, recognition of Indigenous rights, economic justice, migrant justice, climate change, and more. In this way, Leap presents a highly promising and desperately needed project, one to be monitored closely as it unfolds.

Before concluding, instead of retracing what Leap already covers, this dissertation will present a proposal for challenging one major part of that liberal

³²¹ "The Leap Manifesto."

order: its need for perpetual growth. The proposal that follows is that there might be a way of challenging liberalism's growth imperative and thus opening space for more ambitious climate policies by identifying ideas or policies that enter into or "infiltrate" the liberal order and rewrite its logic from within.

Perhaps it would clarify matters to turn to a term used in the work of green political philosopher Robyn Eckersley: "postliberalism."³²² While the *post-* prefix can lack specificity (it tends to define *against* the essence of one thing—i.e., negatively—rather than *from* the thing challenging or replacing it), such a term perhaps evokes the kind of project described in the following pages. It is one that would seek to retain the central ethic of liberalism—the free pursuit of people's good life—but rupture its reliance on liberalism's preferred institutions of liberal democracy and capitalism, in particular perpetual growth. In so doing, it would reorient the pursuits people choose away from those characterized by hyper-consumption, wealth accumulation, and careerism. But what is the path there?

The term "non-reformist reforms" is sometimes used to describe a strategy of political engagement that, instead of pushing directly for revolution, identifies particular policy struggles that are not in themselves revolutionary, but contain emancipatory potential (as opposed to being just about amelioration of conditions within a deeply problematic system) in concert with one another.³²³ What follows

³²² Robyn Eckersley, *The Green State: Rethinking Democracy and Sovereignty* (Cambridge, MA: The MIT Press, 2004), 107.

³²³ I have heard or seen the term used numerous times. My use of it here resonates with that of Nick Srnicek and Alex Williams (*Inventing the Future: Postcapitalism and a World Without Work* (Brooklyn, NY: Verso, 2015), 108), who mean "three things" by "non-reformist reforms": "First they have a utopian edge that strains at the limits of what capitalism concedes [...] Second, these non-reformist proposals are grounded in the real tendencies of the world today, giving them a viability that revolutionary dreams lack. Third, and most importantly, such demands shift the current political equilibrium and construct a platform for further development. They project an open-ended escape from the present, rather than a mechanical transition to the next, predetermined stage of history. The proposals [...] will not break us out of capitalism, but they do promise to break us out of neoliberalism, and to establish a new political equilibrium of political, economic and social forces." Meanwhile, Boaventura De Sousa Santos and A. Rodríguez-Garavito ("Introduction: Expanding the Economic Canon and Searching for Alternatives to Neoliberal Globalization," in *Another Production is Possible: Beyond the Capitalist Canon*, Boaventura De Sousa Santos (ed.) (New York, NY: Verso), xxi)

would fit with that description, however “non-reformist reforms” is a bit sparse theoretically for the argument I wish to present here. To flesh matters out a bit, I turn to a heuristic device (but abstract away from its content³²⁴) used by Saskia Sassen in her attempt to explain historical shifts from one complex social order to the next.

Simplifying somewhat, for Sassen, complex systems are assemblages of different constitutive elements, which operate in such a way as to serve a certain organizing logic. But the elements that make up an assemblage are “multivalent”: though they have the ability to serve one organizing logic (and are often introduced for the purpose of doing so), a small change in how they function would allow them to serve a very different one. Those elements that were developed to serve the logic of one complex system can *jump track* and serve a new purpose. (To illustrate, Sassen gives the example of how the “rule of law” was an essential element to enforce national economic protectionism under one organizing logic, but could eventually come to enforce the rules of a different logic, neoliberalism. Here, the rule of law has jumped track.) If some process can switch enough elements onto new tracks, they together bring the old system’s logic past a *tipping point* and into a new logic.³²⁵

This heuristic device offers a means of looking to see whether there are elements within liberalism, or that can be introduced into it, that can “jump track” and, together on their new tracks, create a new political assemblage which is not committed to perpetual growth and the attendant cheap and enormous energy sources required to power it, and thus is better suited to responding to the climate

trace the origin of the term to André Gorz’s *Strategy for Labour: A Radical Proposal* (Boston, MA: Beacon Press, 1964).

³²⁴ Sassen was interested in how the European medieval system gave way to the nation-state system, which eventually gave way to the present globalized order. I will be interested in showing how a version of liberalism requiring perpetual compound economic growth and commodity consumption due to its reliance on capitalism might give way to a “post-liberalism” that transcends that economic institution.

³²⁵ Saskia Sassen, *Territory Authority Rights: From Medieval to Global Assemblages* Updated Edition (Princeton, NJ: Princeton University Press, 2008).

crisis. Using this device has another purpose: to identify those elements that popular democratic forces can help “switch” onto another track—or at least put in a new light. Sassen’s device makes identifiable in a new way a variety of struggles that at first glance are not necessarily allied or together coherent as a pathway to ideological change. Where concerned with different elements that can jump track, struggles that may originally be intended for unrelated ends may converge in such a way as to alter the ideological system—the modern liberal system may reach a tipping point. That new assemblage may retain liberalism’s core ethic recognizing the inviolability of people’s pursuit of the good life but rewrite its organizing logic so that the good life is not pursued through a system willing to permit such pursuits so long as they do not disrupt perpetual profit and economic growth. *Can that liberal order be “infiltrated,” “tricked” into taking aboard new policies or reshaping old ones that have the appearance of serving its logic but have the effect of disassembling it?*

Let us now consider some examples of elements that could jump track. Rather than a kind of pyramidal relation where it is essential to establish some foundation before progressing, I see the relation between them as a kind of latticework, intertwining without an obvious order or starting point and with multiple points of interrelation. They also act as an appendage to projects with content like the Leap Manifesto’s. While the latter comes from what I have called an eco-left framework, the ideas explored below came from reading and thinking about how degrowth might be achieved starting from current political and economic conditions. Though the “destinations” those two frameworks lead to are different, they both require an exit from the liberal order and so at an early stage of departure they are not opposed to but can complement one another.

The Capabilities Approach. One alternative to self-actualization through consumption in the market that thinkers keep returning to can be captured by the term *capabilities*. The achievement of multiple capabilities replaces endless material accumulation as a path to the good life.

Amartya Sen draws an important distinction between *well-having* and *well-being*. Well-having would describe how rich a person is or even how much control that person holds over offices of power. It refers to command over things that are outside of a person, a measure of opulence. Well-being, meanwhile, would describe the kind of life a person leads. Its primary feature is what a person actually succeeds in being and doing, a person's "functionings." But functionings cannot on their own give a full sense of a person's well-being. Sen frequently distinguishes between a destitute person who starves and an affluent person who fasts. Both have the same functioning achievement in terms of nutrition, but the key difference is in their freedom to choose to experience a state of nutritional deficiency.³²⁶ Because identical functionings can occur for wholly different reasons, Sen believes that freedom has to be part of any concept of well-being: it is necessary to look at what different *combinations of functionings*, or "capabilities," a person is free to pursue.

Notably, Sen has been hesitant to specify just *which* capabilities to achieve functionings ought to be prioritized. The capabilities approach takes on its most articulated form in the work of Martha Nussbaum who uses it quite consciously to advance a project of social justice. Nussbaum lists 10 Central Capabilities that ought to form the basis of any just society. They are the capabilities associated with the following: *Life; Bodily Health; Bodily Integrity; Senses, Imagination, and Thought; Emotions; Practical Reason; Affiliation with People; Other Species; Play; and Control over one's Environment*.³²⁷

Sen and Nussbaum, at least as far as I can tell, do not devote much time to the question of which political and economic system(s) best suit a capabilities approach. They largely take the existing system for granted, as their use of capabilities is

³²⁶ Amartya Sen, "Well-Being, Agency and Freedom: The Dewey Lectures 1984," *The Journal of Philosophy*, 82, No 4 (1985): 202; Amartya Sen, *Development as Freedom* (New York, NY: Anchor Books, 1999), 75.

³²⁷ Martha C. Nussbaum, *Creating Capabilities: The Human Development Approach* (Cambridge, MA: Belknap, 2013), chapter 2.

concerned with other matters.³²⁸ But they are developing, and have crystallized a name for, an approach to justice that is quite ancient. Sen himself roots it in Aristotle's notion of human *flourishing*. It is also recurring, appearing, as we will see shortly, in visions of a good or just society proposed by authors of different generations and political stripes. And in hands other than those of Sen and Nussbaum, it offers an approach to justice that implies the need for an alternative to the liberal order.

The general contours of that vision look like this (references follow below). Its core rests on an idea sometimes expressed by positing two realms: that of *freedom* and that of *necessity* (though those exact terms are not be used by every author in this tradition). True freedom can only be said to begin once the work necessary to subsist is complete. Throughout history, according to this vision, people struggled with scarcity and therefore needed to dedicate large amounts of their time and labour towards meeting their societies' basic needs. Possibilities for freedom were thus closed off. But progress in industrial production, organized for and driven by capitalist growth, would eventually open possibilities for a major rupture with that past, steadily reducing the time and effort required to eliminate scarcity, and thereby expanding the realm of freedom. In this freedom, people would, under this vision, have ample time and opportunity to cultivate their capabilities to do and be the things they value.

³²⁸ Sen distinguishes between *transcendental institutional* approaches to justice, which seek perfect justice through the establishment of ideal institutions, and *realization-focused comparison* approaches, which seek means of evaluating the advancement or retreat of justice in the actual world of real institutions without need for a final vision of the good. A capabilities approach carries out this latter function. See Amartya Sen, *The Idea of Justice* (Cambridge, MA: Belknap Press, 2009), particularly the Introduction and chapters 11-13. For Nussbaum, capabilities are explicitly grounded in political liberalism and could help to address a problem John Rawls dedicated the later part of his career to addressing: that of achieving a stable political formation that could embrace a pluralism of multiple mutually incompatible belief systems (what he called "comprehensive doctrines"). She argues that her set of 10 Central Capabilities can plausibly form the basis of what Rawls referred to as an "overlapping consensus," the common denominators that multiple comprehensive doctrines can all agree ought to be achieved in any society. See chapter 4 of Martha C. Nussbaum, *Creating Capabilities*.

While some level of material abundance is necessary for realizing a society in which people can develop capabilities, it is not one requiring perpetual compound expansion as demanded by capitalism. Under the latter, the current liberal order directs us to pursue our good lives through careerism and commodity consumption/accumulation. Past a point of sufficiency, continued reliance on capitalism and economic growth for wellbeing is unnecessary and actually impedes possibilities for a truly free life. This is because the time colonized and administered to serve the logic of endless profit and commodity consumption is time that cannot be used to develop the capabilities to carry out the activities that we really value doing.

This is not the vision or project of some voice in the wilderness or fringe political belief system. In fact, it is crosscutting among political ideologies. Early in his development of the capabilities approach, Sen himself pointed to its presence in Marx and Engels' description of communism in *The German Ideology*.³²⁹ One finds glimpses of it also in currents of anarchism (e.g., Murray Bookchin's *Post-Scarcity Anarchism* and Noam Chomsky's *Government in the Future*³³⁰) and post-Marxism

³²⁹ Amartya Sen, "Well-Being, Agency and Freedom: The Dewey Lectures 1984," *The Journal of Philosophy*, 82, No 4 (1985): 202 (footnote 19). In a famous passage, Marx and Engels described how under communism, individuals' existence would not be consigned to one economic role. In their vision of what a communist society would look like "society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, to fish in the afternoon, rear cattle in the evening, criticize after dinner [...] without ever becoming hunter, fisherman, shepherd or critic." Karl Marx and Frederick Engels, *The German Ideology: Part One with Selections from Parts Two and Three and Supplementary Texts*, ed. C.J. Arthur (New York, NY: International Publishers, 1947), 53. To be sure, this is not the same as promoting a steady-state economy, but it asserts a vision of the good life that can be achieved outside of an economic system of perpetual growth, unlike the current version of liberalism under capitalism driven by commodity consumption.

³³⁰ In *Post-Scarcity Anarchism* (Oakland, CA: AK Press, [1971] 2004), Murray Bookchin, argued that a revolution in productive technologies (particularly automation) had brought humanity in the 20th century to a unique moment. As he put it, "We of this century have finally opened the prospect of material abundance for all to enjoy—a sufficiency in the means of life without the need for grinding day-to-day toil [...] Supported by this qualitatively new technology, we can begin to provide food, shelter, garments, and a broad spectrum of luxuries without devouring the precious time of humanity and without dissipating its invaluable reservoir of creative energy in mindless labor. In short for the first time in history we stand on the threshold of a post-scarcity society" (p.iv). He notes that, if bourgeois state capitalism's control over social life could once be justified as necessary to organize production to escape scarcity, it had reached the historical limit of its

(e.g., the work of André Gorz, discussed below). Frankfurt School scholar Herbert Marcuse's *One Dimensional Man* provides a definitive example from critical theory.³³¹ It is a vision that merges with what ecological economists and degrowth

usefulness once it had ushered in this technological revolution. State capitalism was now purely an obstacle in the creation of a free society characterized by sufficient material abundance for all, and offered instead only continued scarcity to the poor, toil for workers, and a vacuous consumer society for the upper classes. And the consequences of this arrangement were not merely social. State capitalism's control over production was also driving degradation of the environment severe enough to threaten human survival. Bookchin even muses about the effects of climate change (p.22), a still-distant prospect when he was writing in the 1960s. Bookchin's revolutionary project to reconcile these problems was rooted in a blend of anarchism and ecology.

In *Government in the Future* (Oakland, CA: AK Press [1970] 2005) Chomsky inquires into the proper role of the state in advanced industrial countries. The libertarian socialist views he espouses in that lecture are to him the natural expansion of classical liberal views like those held by Wilhelm von Humboldt, whom Chomsky draws on to note, "since humans are in their essence free, searching, self-perfecting beings, it follows that the state is a profoundly anti-human institution. That is, its actions, its existence are ultimately incompatible with the full harmonious development of human potential in its richest diversity" (p.10).

With the ascent of state capitalism and state socialism, he observes that the possibilities for human development shrink further: "Under conditions of authoritarian domination, the classical liberal ideals which are expressed...by Marx and Bakunin and all true revolutionaries cannot be realized. Human beings will, in other words, not be free to inquire and create, to develop their own potentialities to their fullest. The worker will remain a fragment of a human being, degraded, a tool in the productive process directed from above. And the ideas of revolutionary libertarian socialism, in this sense, have been submerged in the industrial societies of the past half century. The dominant ideologies have been those of state socialism and state capitalism" (p.28). Like Bookchin, he alludes to the possibilities offered by productive property under democratic control: "[S]ome say that centralized management is a technological imperative, but I think the argument is exceedingly weak [...] The very same technology that brings relevant information to the board of managers can bring it at the time that it is needed to everyone in the work force. The technology that is now capable of eliminating the stupefying labor that turns men into specialized tools of production permits in principle the leisure and the educational opportunities that make them able to use this information in a rational way" (p.44). He concludes, "[w]e have today the technical and material resources to meet man's animal needs. We have not developed the cultural and moral resources or the democratic forms of social organization that make possible the humane and rational use of our material wealth and power. Conceivably, the classical liberal ideals, as expressed and developed in their libertarian socialist form, are achievable. But if so, only by a popular revolutionary movement, rooted in wide strata of the population, and committed to the elimination of repressive and authoritarian institutions, state and private" (p.67).

³³¹ Writing around the same time as Bookchin and Chomsky (and coming to similar conclusions), Marcuse looked forward to possibilities for a "pacified society," that is, a society where basic material necessities could be guaranteed to workers without need for unnecessary labour or struggle against others made possible through the democratic control over advanced productive technologies. But such possibilities remained latent. The apparatus of production—tightly administered by business and (during the pre-neoliberal era he was writing in) the welfare state—had itself become a kind of ideology, one wedding the interests of economic elites with those of the labouring classes who found a comfortable or even good life in the rising material standard of living offered by increased production. The same economic and political apparatus that had made this

thinkers have been saying for some time. For instance, one sees it in the work of Clive Hamilton.³³² Tim Jackson (in whose work I actually first came across this vision) argues convincingly that a capabilities approach can take us off a path of material and energy intensity and serve as the basis for a “flourishing within limits,” the pursuit of a good life without unsustainable use of the environment.³³³

But what is most important for the present discussion is how the project’s presence is not confined to anti-capitalist or degrowth frameworks, but is also found in currents of liberalism. The young John Stuart Mill, impressed with the economic growth and progress of his time, mused that there would come a point at which it should stop: one in which “no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward.” As society reaches this point, toil would diminish and many more people would have the leisure to “cultivate freely the graces of life.” But even if economic growth came to a standstill, “human improvement” would not. Rather, “[t]here would be as much scope as ever for all kinds of mental culture, and moral and social progress; as much room for improving the Art of Living, and much more likelihood

project possible was actively hostile to alternatives that would promote a free life: ideas or projects that transcended this ideology or confronted it with fuller notions of freedom were either outright rejected or reduced to terms intelligible to its technocrat administrators. Marcuse thus described advanced industrial society as “one-dimensional,” tightly constraining the modes of economic life it would permit. Some revolutionary democratic project would be required to tap into those latent possibilities to escape it. See especially chapters 1, 2, 9, and 10 in Herbert Marcuse, *The One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (Boston, MA: Beacon Press, 1964).

³³² Hamilton (*Growth Fetish* (London: Pluto Press, 2004), 210) writes “For the great majority of people in rich countries the human condition is no longer dominated by an ever-present need to provide for survival and to accumulate assets to guard against lean times [...] Once the economic problem had been solved, before history had allowed time for people to decide what to do next, the markets filled the vacuum of consciousness with their message of consumption. Although most people intuitively understand that their condition is determined above all by a need to find fulfillment in a social environment that puts income before purpose, they act as if there is nothing wrong because they know not what else to do. The vision of a post-growth society answers the question of what to do next.” As Sen did, Hamilton reaches back to Aristotle’s notion of human flourishing, and calls the vision he is advocating *eudemonism*, “which concerns not just a system of ethics but also a political ideology that argues for an organisation of society that promotes the full realisation of human potential through, in the first instance, proper appreciation of the sources of wellbeing” (p. 212).

³³³ Tim Jackson, *Prosperity Without Growth*.

of its being improved, when minds ceased to be engrossed in the art of getting on.”³³⁴

In his 1930 essay “Economic Possibilities for our Grandchildren,”³³⁵ John Maynard Keynes expected that within a hundred years, technological advance would expand the average standard of living four to eightfold, reducing the time required for work to fifteen hours per week. Rather than being absorbed in preoccupations about their economic wellbeing, individuals would learn to “pluck the hour and the day virtuously and well,” and those who “cultivate...the art of life” are those who will most enjoy this new society.

Though not himself part of the tradition, C.B. Macpherson undertook an immanent critique of liberalism, one building on liberal thinkers like T.H. Green and J.S. Mill. He argued that what is essential to any democratic theory is an understanding of the human individual as “a doer, a creator, an enjoyer of [their] unique human attributes.”³³⁶ Concomitantly, any such theory should seek to maximize the development of individuals’ human *capacities*. (Not only is Macpherson’s term similar to *capabilities*, but his list of essential capacities also anticipates Nussbaum’s.³³⁷) But this view of democracy had been subsumed under contemporary liberal democracy and capitalism, which rest on an understanding of humans as infinite accumulators in the market. What was needed, Macpherson

³³⁴ Such a project would even hold some environmental implications. As Mill put it, “If the earth must lose that great portion of its pleasantness which it owes to things that the unlimited increase of wealth and population would extirpate from it, for the mere purpose of enabling it to support a larger but not a better or happier population, I sincerely hope, for the sake of posterity, that they will be content to be stationary, long before necessity compels them to it.” John Stuart Mill, *Principles of Political Economy, Books IV and V* (Penguin, [1848] 1988), 116.

³³⁵ “Economic Possibilities for our Grandchildren” can be found in John Maynard Keynes, *Essays in Persuasion* (London: Macmillan, 1931). eBook available at <http://www.gutenberg.ca/ebooks/keynes-essaysinpersuasion/keynes-essaysinpersuasion-00-h.html>

³³⁶ C.B. Macpherson, *Democratic Theory: Essays in Retrieval* (Oxford University Press, 2012), 4.

³³⁷ The capacities Macpherson identified as “essential” to any democratic theory included “the capacity for rational understanding, for moral judgment and action, for aesthetic creation or contemplation, for the emotional activities of friendship and love...for wonder or curiosity...for laughter...for controlled physical/mental/aesthetic activity, as expressed for instance in making music and in playing games of skill.” Macpherson, *Democratic Theory*, 53-54.

argued, was a retrieval of that other understanding, that is, of humans as maximizers of their capacities. He believed the ongoing technological revolution could “by releasing more and more time and energy from compulsive labour, allow men [sic] to think and act as enjoyers and developers of their human capacities rather than devoting themselves to labour as a necessary means of acquiring commodities.”³³⁸ Macpherson believed increases in material productivity to have only been a temporary necessity, one that could be abandoned in advanced industrial nations, but only if people could come to see themselves as developers of capacities instead of consumers.³³⁹

I believe all of this very strongly suggests that there is a current within liberalism that is consistent with its core ethic of allowing people to pursue their unique versions of the good life, but inconsistent with the continued hegemony of its preferred institutions, particularly capitalism and its infinite growth imperative. Taking a cue from Tim Jackson, I will continue to refer to this in what follows as the capabilities approach, but acknowledge that not all authors above would use this term (J.S. Mill, Keynes, and Marcuse all made reference to the “art of life” or “art of living”). The capabilities approach to justice can enter into the liberal order. Indeed, its use and development by Sen and Nussbaum very much show it is already part of liberalism’s modern tradition. But it can also jump track. Instead of being merely a

³³⁸ Macpherson, *Democratic Theory*, 37.

³³⁹ As he put it, “The standard of wants appropriate to a democratic theory, then, is different from the standard generally assumed in the liberal theory. But does it not also, like the liberal standard, tend to shift upwards without limit? It is true that the full development of human capacities, as envisioned in the liberal-democratic concept of man—at least in its most optimistic version is infinitely great. No inherent limit is seen to the extent to which men’s human capacities may be enlarged. But there is no reason to think that such indefinite enlargement requires an indefinite increase in the *material* prerequisites. On the contrary, the extent to which an advanced society makes individually owned material increases the main criterion of social good militates against its recognizing the importance of equal development of the essential human capacities [...] No increase in productivity, however great, will end scarcity while people continue to see themselves as infinite consumers. A comparatively modest increase in productivity, or no increase at all in the present productive capacity of the economically most advanced nations, would end scarcity if people came to see themselves (as the justifying theory of liberal democracy must assume them to be) as doers, exerters, enjoyers of essentially human capacities.” Macpherson, *Democratic Theory*, 62.

means of understanding how to improve things within a liberal order as Sen and Nussbaum use it, it can actually serve as the basis for re-evaluating liberalism's political philosophical claims to continuing to realize the conditions for a just society, and in the end undermine them. Even restricting ourselves to thinkers arguing on liberal terms—J.S. Mill, Keynes, and Macpherson—the capabilities approach quickly shows that there is something wrong with strict adherence to the liberal order's pursuit of perpetual economic growth, which has become a kind of malevolent entity possessing our society. For those of us in the (over)developed countries, this growth imperative is no longer necessary for the purpose of eliminating scarcity, no longer—as degrowth thinkers tell us—increases wellbeing. Prioritizing growth even makes some things worse, most centrally, our ability to respond to climate change, but also to shift away from the massive material throughput that is so burdensome on ecosystems.

The major effect that the capabilities approach has, then, is to provide a standard that allows us to simultaneously delegitimize the claims of the current liberal order and the necessity of growth, while also conceiving of a good society that can be achieved within ecological limits. One of the most immediate and consistent questions my students have asked in lecture and tutorial whenever we discuss the problem of sustainability and liberalism's institutions, particularly capitalism, is just what is supposed to be a measure of a good life or society if not one centered on jobs, perpetual growth and progress, and consumption. Though anecdotal, it is a strong indication to me that the question of a good life in terms other than those of the liberal order must be answered. There is a reluctance, a nagging doubt at the back of the mind, to level a full systemic critique until this question is answered. The task then is to bring the capabilities idea into the mainstream. The kinds of policies discussed below will help answer how the capabilities approach is to be realized.

*Universal Guaranteed Income.*³⁴⁰ The universal guaranteed income (UGI) provides individuals with an income regardless of employment status. It is often put forward as an anti-poverty strategy, but it could be a lot more ambitious than that. In the same way that universal healthcare can be seen as a human right to be free from treatable illness, a UGI could, at the very least, guarantee a right to live free from poverty—and it is often put forward as an anti-poverty policy.³⁴¹ But, *if instituted in the right way*, it can be more ambitious than that, providing not just the means to pursue a life free from poverty, but a free life. Period.

This caveat is important. Like renewable energy, a guaranteed income is not the seed of any one particular political project. Multiple lines of political philosophical reasoning support it and simultaneously limit its application, and so some care needs to be taken regarding what kind of political project it is shaped to promote.³⁴² For example, on the libertarian right, a basic income is justified because it can simultaneously address poverty created by capitalism while shrinking a welfare state perceived to be bloated and inefficient. In Milton Friedman’s version, it is not really *universal* at all, but a “negative income tax” or subsidy to those below a certain income level, merely establishing an income floor, and a low one at that.³⁴³

³⁴⁰ The next two items, a universal guaranteed income and shorter working hours, also appear prominently (alongside open borders) in Rutger Bregman’s *Utopia for Realists: The Case for a Universal Basic Income, Open Borders, and a 15-hour Workweek* (The Correspondent, 2016), a book now generating considerable attention that I learned about too late to read and include in this dissertation. An article by Bregman in *The Guardian* based on that book is, however, cited below in the section on reducing work hours. See also Graeme Maxton and Jorgen Randers, *Reinventing Prosperity: Managing Economic Growth to Reduce Unemployment, Inequality, and Climate Change (A Report to the Club of Rome)* (Vancouver: Greystone Books, 2016), chapter 9.

³⁴¹ Bob Hepburn, “New poll shows surprising support for anti-poverty plan: Hepburn,” *Toronto Star*, December 11, 2013, http://www.thestar.com/opinion/2013/12/11/new_poll_shows_surprising_support_for_antipoverty_plan_hepburn.html

³⁴² For more detailed surveys on the different justifications for a UGI than what follows, see Daniel Raventós, *Basic Income: The Material Conditions of Freedom* (London: Pluto Press, 2007), in particular chapters 2 and 3; and Philippe Van Parijs, “Competing Justifications of Basic Income,” in *Arguing for Basic Income: Ethical Foundations for a Radical Reform*, Philippe Van Parijs (ed.) (New York, NY: Verso, 1992).

³⁴³ Gorz argues that the legitimacy of a guaranteed income on these grounds would always be contested. It would be built on an understanding that those who work must transfer some part of their wealth to those for whom there are no job opportunities or who are deemed unable to work, a situation sure to foment resentment. It would also risk acting as a kind of “top up” for low-grade and

Philippe Van Parijs argues for a UGI as an essential part of establishing what he calls “real freedom for all” to distinguish it from a right-wing libertarian notion of freedom. The latter assumes too simply that guarantees of (1) security through well-enforced rights (principally property rights) and (2) ownership of self are sufficient to provide freedom from coercion. But those two elements make individuals merely *formally* free from coercion, “free” even as they face destitution for lack of means to acquire basic needs or as they take degrading, oppressive jobs to subsist. *Real* freedom requires that (3) individuals have the greatest opportunity to carry out what they wish to do.³⁴⁴ The UGI does exactly this.

Parijs argument is a very complex one to distil, but it will suffice to say for now simply that, on the question of whether *real freedom for all* ought to be realized through capitalism or socialism, Parijs holds that one must choose capitalism because it possesses a superior productive potential and will thus offer the highest sustainable basic income.³⁴⁵ What this means, then, for my argument is that Parijs’ version of a UGI is not *conceived* as a way of exiting the existing liberal ideological order; it still requires capitalist growth. But what is important is that it can enter into that order, and, once it is lodged there, has the ability to jump track in a way that a libertarian version of a guaranteed income would not.

The greatest effect of a generous UGI once introduced would be ideological. Once inserted into the liberal order it could signal the arrival of a system of post-

low-paid precarious work. See André Gorz, *Critique of Economic Reason* (Brooklyn, NY: Verso, 1989), 210. (But for a response see Raventós, *Basic Income*, 184-185.)

Thanks to Dr. Ellie Perkins for also pointing out that the resentment Gorz worries about could be reduced in a society that comes to form a broad social understanding of the importance of equality in society, the far-reaching benefits of which are pointed out in Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Equality is Better for Everyone* (Toronto: Penguin Books, 2010).

³⁴⁴ Philippe Van Parijs, *Real Freedom for All: What (if anything) Can Justify Capitalism?* (Clarendon Press, 1998.), chapter 1.

³⁴⁵ Again, this is a *very* involved argument. Parijs actually compares capitalism and socialism in “optimal” forms, but to define them would involve a lengthy digression that I do not believe affects my argument that a UGI would not *automatically* provide a mechanism to transcend liberalism and its growth imperative. It has the ability to serve a capitalist organizing logic, but also some alternative organizing logic. For more on how he arrives at his conclusions, see Van Parijs, *Real Freedom for All*, especially chapters 2 and 6.

scarcity, of the achievement of productive capacity to provide for the material needs for a good life. And as people come to understand that condition, their political imaginary might grow. They may come to question the need to take on alienating work, and the need for the perpetual-growth fetish. It will help that a UGI will also have entailed a major extension of democracy into the economy, a democratic reclamation of society's vast economic surplus previously appropriated as private hyper-wealth. The UGI can offer reassurance that an exit from careerism will not leave workers in precarity. It could allow people more freedom to participate in the kind of economy they want by opening possibilities to engage in economic enterprises that are not about profit, maximizing competitiveness, or growing market share. And that democratic economic extension can be built upon further. If part of society's economic surplus comes back to us as individuals, why not also to our communities, why not also those communities in other parts of the world to whom we have duties to ensure transition into a post-carbon world adapted for climate change?

One area where a UGI coincides directly with climate concerns is in easing the transition towards a renewable energy system. In particular, it would make stronger environmental regulation more politically acceptable where that regulation affects jobs in heavily environmentally destructive sectors, like the fossil fuel industry. It might even eventually play a role in allowing countries to take in more migrants from places experiencing climate change. And a UGI can also work in conjunction with another policy change to which we now turn.

Shorter working hours. A confluence of recent changes could set the stage for bringing policies around reducing work hours into the liberal order. First, there is some evidence showing that shorter working days can improve efficiency and reduce employee turnover (in addition to other benefits), which is good for

capitalism.³⁴⁶ Second, in a time when increased automation threatens jobs,³⁴⁷ work-sharing programs may offer a way of reducing unemployment. Third, labour campaigns have won some impressive recent victories in their fight for a liveable (\$15) hourly wage. As a result, labour may find itself emboldened, its strength renewed by these victories, and find ways to expand the fight around work and liveability; shorter working hours might be among them.

Instead of merely improving worker productivity or cushioning the blows of capitalist automation, reduction of work hours could jump track to serve the capabilities approach. Most obviously, it would ensure more people more free time to pursue their good life. There is always a temporal opportunity cost to work: hours worked are hours that cannot be spent in developing or using capabilities. The need to transfer over to an employer—and thus reduce—the use of and control over the development of one’s capacities was central to C. B. Macpherson’s condemnation of capitalism and his search for a freer society.³⁴⁸

Complemented by some form of income guarantee, a reduction in work hours opens up even more possibilities for deviating from liberalism’s hegemony. In *Critique of Economic Reason*, André Gorz argued that as automation reduced the need for workers and increased precarious work, the political left needed a new project. He envisioned one centering on equitably sharing what necessary working time remained as a condition of receiving an income. Gorz’s does not, therefore, propose an *unconditional* income (he argues that work is essential for equal

³⁴⁶ David Crouch, “Efficiency up, turnover down: Sweden experiments with six-hour working day,” *Guardian*, September 17, 2015, <http://www.theguardian.com/world/2015/sep/17/efficiency-up-turnover-down-sweden-experiments-with-six-hour-working-day>; Rutger Bregman, “The solution to (nearly) everything: working less,” *Guardian*, April 18, 2016, <http://www.theguardian.com/commentisfree/2016/apr/18/solution-everything-working-less-work-pressure>.

³⁴⁷ For example, a recent study out of the Oxford Martin School estimated 47% of US jobs may be at risk of automation. See, Carl Benedikt Frey and Michael A. Osborne, “The Future of Employment: How Susceptible are Jobs to Computerisation?” (Oxford Martin School, 2013) <http://www.oxfordmartin.ox.ac.uk/publications/view/1314>

³⁴⁸ Macpherson, *Democratic Theory*, chapter 1.

citizenship³⁴⁹). But income amount would not be tied to the amount of hours worked, as current wage-labour is—only to having completed one's fair share of it. Nor would employment have to be concurrent with income. Workers could schedule their periods of required employment in such a way that they are allowed lengthy stretches of time off, with enormous benefit:

This possibility of periodically interrupting your working life for six months or two years at any age will enable anyone to study or resume their studies, to learn a new occupation, to set up a band, a theatre group, a neighbourhood cooperative, an enterprise or a work of art, to build a house, to make inventions, to raise your children, to campaign politically, to go to a Third World country as a voluntary worker, to look after a dying relative or friend, and so on.³⁵⁰

Time dominated by the demands of work (and the recovery from the long workday) is also time that cannot be dedicated to developing community. Reducing work hours holds implications for the political system, too. With control over time increased, people will have more hours to engage in democratic endeavours. The justification for liberalism's shallow democracy—the time burden prohibiting average citizens from becoming involved—will begin to look hollow, and more participatory or deliberative forms of democracy can begin to take root and thrive. Anyone involved in climate activism can attest to how many of the activists are young undergrad students, employed part-time, or retirees, precisely those groups with more time than the demands of careerism under the demands of capitalist growth allows.

The energy inputs required for full-time employment of 40 hours per week or more (for almost every week of the year) of the majority of an economy's adult population are enormous. They would include not only the powering of work sites themselves but the entire system of rhythmically synchronized daily reproduction of the workforce—from the energy needed to heat water for morning coffees and

³⁴⁹ See André Gorz, "On the Difference between Society and Community, and Why Basic Income Cannot by Itself Confer Full Membership of Either," in *Arguing for Basic Income: Ethical Foundations for a Radical Reform*, Philippe Van Parijs, (ed.) (London: Verso, 1992).

³⁵⁰ André Gorz, *Critique of Economic Reason* (Brooklyn, NY: Verso, 1989), 210.

showers across households simultaneously to the energy required to power the commute and so on. Reducing work hours could therefore have important implications for climate as well, though this will depend on finding ways of ensuring freed up time is not reinvested in carbon-intensive activities.³⁵¹

Public goods. Though undermined in the neoliberal period, investments in public facilities and events have traditionally been part of liberal societies, and there are already a wide variety of fights for renewed public investment at multiple levels of governance. These investments have the possibility to switch track.

Tim Jackson notes that a capabilities approach as Sen describes it could still preserve and even justify an economic system based on material consumption. The problem lies in how Sen acknowledges that avoidance of shame is an important social capability, but, if one takes a capitalist system for granted as Sen appears to, avoidance of shame requires a constant process of “keeping up with the Joneses.”

³⁵¹ There have been arguments (and some evidence for them) that reducing work hours can be a pathway to reducing emissions. See, e.g., David Rosnick and Mark Weisbrot, *Are Shorter Work Hours Good for the Environment? A Comparison of U.S. & European Energy Consumption* (Center for Economic and Policy Research, 2006) available at <http://cepr.net/publications/reports/are-shorter-work-hours-good-for-the-environment-a-comparison-of-us-a-european-energy-consumption>; Juliet Schor, “Reducing working hours can benefit the economy and the environment,” *Guardian*, June 2011, <https://www.theguardian.com/sustainable-business/reducing-working-hours-economy-environment>; David Rosnick, “Reduced work hours as a means of slowing climate change,” *Real-World Economics Review* 63 (2013). See also the brief literature review in Qing-long Shao and Beatriz Rodríguez-Labajos, “Does decreasing working time reduce environmental pressures? New evidence based on dynamic panel approach,” *Journal of Cleaner Production* 125 (2016).

However, Shao and Rodríguez-Labajos (op. cit.) found some evidence for a “rebound effect” where per capita carbon emissions do not decline with a fall in working hours. The authors speculated that hours not occupied by work might be occupied by carbon-intensive activities (such as travelling by car and vacationing abroad). Druckman et al. had earlier warned about the possibility for this rebound effect and stressed the importance of the kinds of activities non-work hours are dedicated towards. Though they do not propose a program to do so, they suggest that “supportive structures” will need to be in place, which could include a change in travel infrastructure so, for example, “twenty minute neighbourhoods” become the norm “where all basic needs, such as shops, workplaces, health facilities, libraries and recreational facilities can be met within a twenty minute walk or cycle [...] Natural areas such as parks are included within the area and, because people are no longer in their cars and live more locally based lives, community spirit and social capital are increased, resulting in improved levels of well-being.” Druckman et al., “Time, gender and carbon: A study of the carbon implications of British adults’ use of time,” *Ecological Economics* 84 (2012), 158-159. The possibility of a rebound effect obviously complicates the way reduction in working hours might affect GHG emissions, but this is precisely where a carbon tax can make a major impact.

Jackson sees public investment as a means to develop capabilities that rival the appeal of material consumption and accumulation:

The task is to create real capabilities for people to flourish in less materialistic ways. At a societal scale, this means re-investing in those capabilities: physically, financially and emotionally. In particular, we need to revitalize the notion of public goods [...] Green space parks, recreation centres, sports facilities, libraries, museums, public transportation, local markets, retreats and 'quiet centres', festivals: these are some of the building blocks for a new vision of social participation.³⁵²

The way Jackson conceives of realizing his ideas is not through decreeing accumulative hyper-consumptive lifestyles illegal through government fiat, but by making them unappealing in contrast to richer lifestyles of capabilities development.

What I have described is, again, a kind of latticework, an intertwined set of policy changes. The changes might even have a Mobius strip-like character in the way they interact with, reinforce, and lead into one another: a capabilities approach to the just society implies a need for some base level of material opportunity and significant control over one's time; an income guarantee and a reduction in working hours respectively realize the material and temporal conditions for developing one's capabilities; a UGI can break the relationship between hours worked and income received; with extra time and a new understanding of the importance of developing one's capabilities will come demands for more public investment; the intuitive appeal these ideas already hold in the mainstream for their own sake (e.g., shorter work hours relieve us from long stretches at alienating jobs) can be anchored or grounded philosophically in a capabilities approach, giving them more weight. But each can be justified under reasons consistent with the liberal order and so, I believe, has the possibility of entering into it and, once lodged there, rewriting its logic.

³⁵² Tim Jackson, *Prosperity without Growth*, 193.

6. Conclusion: Towards a More Just Society

If what I have described can take hold and begin to recast the way a good society is conceived, possibilities might open up for other, more ambitious changes that further break apart liberalism's hold. As defining a good life through a capabilities approach (rather than through ability to thrive in the market) strengthens the moral case against vast wealth accumulation, *income ceilings* could complement basic incomes.³⁵³ And they might be conceived in liberal-consistent terms. Hoarding obscene personal riches interferes with and diminishes the freedom of others by depriving society of means that can be redistributed to individuals or communities that would otherwise enhance their capabilities; hyper-accumulation might, in other words, be conceived of as an illegitimate freedom. Advertising could be conceived as an illiberal tool of manipulation, one that interferes with our autonomy by allowing massively powerful corporations to push lifestyles and life choices onto us. In its branding form in particular, advertising carries little product information necessary for individuals to make market decisions. It could thus be taxed or regulated.³⁵⁴ New policy-evaluation instruments could chip away at the prioritization of gross domestic product growth. Generous guaranteed incomes could undercut part of the rationale behind wealth inheritance—the desire to ensure economic security for one's children.

As mentioned, I have held to describing this project in political philosophical terms.³⁵⁵ There would still be much work to be done at the empirical level. At what

³⁵³ Herman Daly speculated that maximum inequality in income between the richest and poorest should be around 10:1 (or at most 20:1 to be conservative about where best to set maximal difference). Herman E. Daly, *Beyond Growth: The Economics of Sustainable Development* (Boston, MA: Beacon Press, 1996), 202-203.

³⁵⁴ Erik Assadourian, "The Path to Degrowth in Overdeveloped Countries," in *State of the World 2012: Moving Toward Sustainable Prosperity*, eds., Erik Assadourian and Michael Renner, (Washington, DC: Worldwatch Institute, 2012), 30.

³⁵⁵ Sadly, I do not have the advantage that the Leap Manifesto's authors did in being able to turn to a progressive think tank to write a report demonstrating the feasibility of my project. See, Bruce Campbell, Seth Klein, and Marc Lee, *We Can Afford The Leap* (Canadian Centre for Policy Alternatives, 2015).

level should we set a UGI? Which parts of the economy can we hand over to automation and work-sharing to reduce working time? How best can the UGI be paid for? How much might we minimize work hours and still have an economy permitting this capabilities-based society? How and to what degree might the conditions created by a capabilities turn affect generation of economic surplus? I leave questions like these to others. My concern here is to propose and justify a political project for a more just society that would lead to a search for answers to questions like those instead of questions like, “how much will economic growth suffer if we take the drastic climate action needed”?

Like much of the content of the Leap Manifesto, the political struggles of the project I have described are not ones that, at first blush, relate obviously to the fight for climate justice. But what they can do is rewrite the organizing logic of the current liberal political and economic system from within so that the kinds of struggles that *are* obvious in that fight are not filtered out by the need to preserve capitalist growth and wealth accumulation and to obstruct democratic participation in the economy. Under a new logic, there is a great deal more political space for more ambitious action. And, just as the Leap Manifesto does, the project I describe also satisfies the condition demanded by far-reaching justice, which is to seek viable progressive systemic change at a moment when the climate crisis raises serious questions about the validity of claims to justice our current society makes. It diverges somewhat from the Leap Manifesto in clearly grounding itself in a better-defined political philosophical tradition of justice, but also picks up a thread mentioned therein and develops it to show how it offers the key to exiting the liberal order.

The project also addresses the three problems described at the beginning of this chapter that the liberal framework for addressing climate change creates. *Fossil free alienation* fades as a UGI and reduced work hours permit workers to bargain for better work conditions and participate in economic activity they find valuable. *The global Manhattan* (continued commodity hyper-consumption in the post-carbon era

which leads to the loss of nonhuman natural space and the substitution of natural processes) is blunted by a turn away from the need for commodity consumption and its attendant pressure on ecosystems. *The solar-powered invisible hand* (i.e., the relegation of so large a part of the climate response to capitalist market forces) loses its grip to the degree alternative economic priorities can reduce the legitimacy of capitalism.

Paradoxically, even though this third front is probably the one with the least hope of seeing victories for its struggles—of seeing liberalism’s hegemony replaced—it is also the one where I turn to find the most hope. In the recognition that another and more just society is conceivable, even possible, we find a bottomless well of inspiration for new ideas (and for critique of tired ones), for making demands uncompromised by false pragmatism, for courage to fight for it all. It is this third front that addresses the proviso of far-reaching climate justice I discussed in the introduction: that if climate change is signalling the presence of major injustices in the current system, then that system should be replaced with something more just. A search for a fairer world with better work and the opportunities to develop ourselves at the same time that we address climate change does just that.

VI. Conclusion: Three Fronts in the Struggle for Climate Justice

In this dissertation, I have sought to look into the meaning of climate justice. I opened by observing that climate justice is best understood as a moral framework allowing us (1) to understand the various injustices causing or engendered by climate change and (2) to organize responses to climate change addressing those injustices. Its first facet identifies and draws attention to the various injustices associated with climate change that must somehow be attended. I enumerated 15 groups of potential climate wrongs, which, because of their diversity, defy attempts to comprehensively define *climate justice* via this first facet alone.

The second facet of climate justice is the one that I explored at length in this dissertation. This facet organizes responses to climate change concerned with addressing or preventing those climate injustices described in the first facet. I described three “fronts” in the fight for climate justice, each with a different “site of contestation”: *climate justice as climate ethics* concerned with the creation of a just global agreement governing the distribution of burdens and benefits among nations; *the climate justice of the climate movement*, which seeks to make governing elites democratically accountable for its moral demands; and *climate justice as just society*, focused on the ideological grounds of society’s political and economic institutions. Each of these fronts is concerned with—or “activates”—different combinations of injustices of that first facet. (Tentatively, I proposed a way to map out a relationship between the two facets. Taking into account the three fronts, the multiple struggles of the climate movement, and the moderate and radical currents contained within it, we discover a very complex theatre of climate justice.)

What ties each of the three fronts together, beyond striving for moral responses to climate change, is that each in some way has to engage, knowingly or not, with the realm of possibility for climate action delimited by capitalism and

liberal representative democracy, the economic and political institutions that, in political philosophical terms, claim to realize liberalism's core ethic of permitting individuals to pursue their good life. The question of liberalism thus runs throughout the dissertation. While the primary question of this dissertation is *What does climate justice mean?*, a secondary question is *How has liberalism constrained moral possibilities in the response to climate change?* Chapter 4 described how capitalism and liberal democracy work together to create a system of filters that favour a narrow range of climate policies.

In identifying the three fronts, I also observed that important tasks remain to be addressed on each. On the first front, climate ethicists engaging with climate change must now adapt to what I called a "mutation" in global climate politics that led to negotiations diverging significantly from the kind of legally binding agreement grounded in duties of justice many were anticipating. The mutation eliminates an agreement structure designed to incorporate matters of justice—but it does not do away with the need to address those matters. I noted in chapter 2 that this is what philosopher Dale Jamieson called "the wreckage of the old story." In it, climate ethicists must find new means of theorizing justice in a global climate negotiation system characterized by voluntary pledges and ratchet mechanisms based on the "global standing and reputation" US climate negotiator Todd Stern believed would suffice to drive climate action. They must figure out how vital matters of justice that remain unresolved—north-south mitigation and adaptation funding, rapid emissions reductions coordinated to keep global temperature rise low enough to preserve a safe climate, and so on all in accordance with well-considered principles—can still be addressed in this new regime.

On the second front, the climate movement stands at an interesting moment. It gathered tremendous strength particularly after COP15 in 2009 as activists observed how, instead of adopting ambitious climate policy, governments were actively promoting some of the most destructive fossil fuel projects on earth. The movement's moderate and radical currents became united in some initial struggles

essential for any climate response: mass marches, blockades, and divestment. Stitched together in this way, the climate movement became the strongest it has ever been, using these actions to press its complex moral demands for accountability—addressing gender and racial inequality, recognizing Indigenous land rights, creating good jobs, increasing democratic control of the economy, and so on. But the movement must deal with a problem created by the liberal order—that of “friction,” which requires that demands be made in terms that register within and can be resolved through the logic of capitalism and liberal democracy. Friction is highest for demands with few specifications, captured in highly interpretable calls for “climate action.” The need for friction makes the movement’s complex and differentiated moral demands susceptible to being translated and *flattened* by governments to a choice between a narrow set of market mechanisms, chiefly carbon taxes and emissions trading, to meet an unambitious set of climate policy objectives. Compared to that 2009 moment, the adoption of even just these market policies might satisfy the more moderate current of the movement, but not the radical stream, and that could risk pulling the movement apart where it was once stitched together and strengthened by the need to act in a time of widespread government inaction. Movement activists will need to find ways of maintaining a strong climate movement that can continue the fight for those complex moral demands even as that narrow array of climate action enters more and more into the policy landscape and eases concerns about climate inaction that had done so much to power the movement.

Even if successful, flattened to narrow market mechanisms, liberal climate policy would not threaten the current status quo, but, would carry it into a post-carbon future. I suggested reasons to be wary that such a program might be sufficient to avoid catastrophic warming (as mentioned in chapter 2, government pledges under the Paris climate agreement bring global warming to a devastating 3.5°C by 2100 if not improved upon, and some countries, like Canada, are off track to meet even these pledges), but even if it were, it risks creating a world characterized

by three potential problems, which I called *Fossil-Free Alienation*, *the Solar-Powered Invisible Hand*, and *the Global Manhattan*.

We thus turn to our third and final front in the struggle for climate justice. If the struggles for climate justice both of climate ethicists and of the climate movement are waged in a realm of possibility constrained by the imperatives of liberalism, then justice might demand a change in the very ideological foundation of our society and the function of our political and economic institutions. This is perhaps the most difficult task of all, and so I explored several ways of going about it. Two alternative frameworks for responding to climate change, degrowth and the eco-left, give a sense of how we might depart from liberalism's logic; they are thus landmarks on the horizon to reorient towards. A project like the Leap Manifesto gives a sense of how we might move towards an eco-left destination. Specifying an array of policy demands that would turn away from liberalism's most extreme form, neoliberalism, and finding key strategic windows to bring them into the mainstream (like an NDP seeking to restore progressive credentials) offers an avenue for popular movements that avoids some of the problems of friction. Leap is, however, a bit light on exactly what the political philosophical core of its just society is, a matter that can create some confusion about the nature and extent of the change it demands. But in its concern for control over time, greater income through better work, and the human "flourishing" it refers to, it possesses an important thread that intersects with some of my thinking about how to achieve degrowth. There are a series of changes that, although consistent with liberalism or serving its institutions' logic, could "jump track" in their functions and work together to rewire the liberal order from within. I argued that recasting the search for a good society from the point of view of capabilities offers a way to disrupt liberalism's claims and to simultaneously point the way to a society that is not only more just but better able to respond to the climate crisis because it will have begun to be relieved of capitalism's growth imperative.

There is one final way the three fronts of climate justice relate to one another: victories won in one front increase the possibility for victories in another. They are synergistic. Changing the ideological foundation that defines the society our institutions are meant to realize broadens the political space the climate movement can make its demands in. If the climate movement can win its struggles, states would commit to more ambitious climate duties as part of a binding agreement under the UNFCCC system that more closely resemble the models for a just global arrangement climate ethicists have envisioned. In this sense, the three different kinds of climate justice are not separate, but intertwined in addressing the most important crisis of our time because how we respond to the climate crisis will determine the nature of the world we and future generations will live in. If we are concerned that that world is the most just one possible, it is the struggle for climate justice that we must seek to understand, in all its facets, and to advance, on all its fronts.

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