

Sketching out the Climate Trilemma

Rebecca Sophie Marwege

Prepared for the annual meeting of the Western Political Science Association
in Portland, Oregon, March 10-12, 2022

Abstract:

Climate Change poses the greatest threat humanity faces. This paper will argue that we can conceptualize the difficulty of reaching environmentally and socially just agreements to address climate change by adapting Dani Rodrik's (2011) trilemma of the global economy. Introducing the *Climate Trilemma*, the paper will argue that political solutions to climate change involve a trade-off between democracy, national sovereignty and ecocapitalist approaches. To avoid a seemingly apolitical or amoral approach to climate change, the paper will therefore argue that particularly the democratic dimension including grassroots activism proves crucial.

Introduction

In September 2019, during the Global Week of Climate Action, about 6 million young people, most of them schoolchildren, took to the streets across 150 countries (Bartlett and Watts 2019). This protest has been one of the biggest international climate protests in history - while it was an impressive show of young people's determination to fight climate change and demand climate justice, it also expressed young people's frustration with insufficient political action to date. In this paper, I will lay out the political problem of climate change by building on Rodrik's (2011) political trilemma of the world economy which holds that we cannot have hyperglobalization, national sovereignty and democratic politics at the same time. Translating this trilemma to the context of climate change, I will argue that we are faced with the incompatibility of democratic-grassroots, sovereignty-based regulatory and ecocapitalist approaches to climate change. At maximum, we can reconcile two of these paradigms, while encroaching on the third. To develop this argument, I will first introduce the relevant environmental theory to place my argument in. I will then introduce Rodrik's (2011) trilemma of the world economy before I adapt it to the context of climate change. Doing so, I will explain the normative value of each of these different paradigms, why we should aim to preserve each and what the trade-offs consist of by favoring one or two of them. Subsequently, I will argue that a grassroots-based approach is necessary to mediate the trilemma and explain why it may be capable of redressing a seemingly amoral or apolitical approach to climate change.

1. Contemporary Origins of Environmental and Climate Justice Approaches

Beginning with the first generation of contemporary environmental thought, early works by scholars such as Ophuls (1992), Bullard (1990), and Taylor (2000) addressed local struggles

against toxic dumps and polluting factories in minority communities, thus coining the term “environmental racism” and often blending scholarship and activism.¹ Conceptually, the emerging literature on environmental issues tried to reframe environmental thought as emerging from places where we “live, work and play”, foreshadowing the later catch phrase of “think global, act local”. While climate change was not a key concern yet, related issues such as the Ozone movement, or concerns about nuclear energy or biodiversity started to become more prevalent and created the organizational and intellectual framework for the climate movement. Overall, we can observe an overall shift from a distributive conception of environmental justice to a stronger capabilities focus over the course of the years, as well as a rise in grassroots-level demands for community-based participation in traditional policymaking and environmental decision-making processes (David Schlosberg 2007, 69).

While the environmental movement in the US coined the environmental justice debate, globally, the focus of environmental justice on racial disparities began to be applied to North-South relations, as well as domestic discrimination of indigenous and poor communities in states other than the US.² With the rise of International Climate Conferences such as the Earth Summit 1992 in Rio and the establishment of the United Nations Framework Convention on Climate Change (UNFCCC), demands for climate justice also started to play a bigger role. Paralleling the development of climate change becoming the major issue focus, the environmental justice

¹ Two major events in this context were Love Canal and Warren County. Love Canal refers to a neighborhood in New York which became a dumping site of toxic waste which caused significant harm to the health of members of the community and eventually led to the relocation of thousands of inhabitants and was ultimately demolished in 2004. Love Canal became an early symbol of the fight of poor communities against pollution and environmental discrimination in the US (Schlosberg 2007, 47). A few years later, in 1982, Warren County, North Carolina, became another earmark in the fight against environmental discrimination and further coined the term “environmental racism” when activists protested against the dumping of 120 million pounds of PCB-contaminated soil in a majority African-American county.

² A range of transnational environmental movements managed to strengthen their impacts, such as Greenpeace and Rising Tide (a coalition of NGOs throughout the world) that emphasized the disproportionate impact of climate change on developing countries and poor minority communities (Schlosberg 2007, 85).

literature started to shift their focus from human and socioeconomic environmental justice concerns related to toxins, to define and discuss the need for climate justice more generally (Roberts and Parks 2006; Holland 2008). Scholars also began to consider more fundamental questions such as whether the responsibility to do something against climate change should be considered in individual, collective or structural terms and how to best conceptualize humanity's place in nature (Caney 2005, Caney 2009; Sinnot-Armstrong 2005; among others).

Additionally, the literature started to consider the question how environmental concerns and the ecological crisis could be squared with liberal thought and democratic forms of governance. Barry and Eckersley (2005) for example edited the volume *The State and the Global Ecological Crisis* which reflects on the question how the state could be reinstated as a facilitator of environmental policy rather than a chief agent in environmental destruction. Additionally, in *Globalization and the Environment* Christoff and Eckersley (2013) analyzed the relationship between globalization and the environment in more detail.³ These scholars and works are only examples of a developing and growing literature on the relationship of democracy and the state to the ecological challenge.⁴ What is more, we can also observe this broadened focus in the critical literature investigating hegemonic relationships in the environmental realm. Consider for example Paterson's (2009) article on "Post-hegemonic Climate Politics?" and Pellow's (2011) work on the importance of transnational environmental justice movement networks. In his recent book on *What is Critical Environmental Justice*, Pellow (2017) connects environmental justice to social justice concerns and hegemonic relationships as expressed in the Black Lives Matter movements and

³ Eckersley (2017) further developed her ideas on geopolitican democracy in the anthropocene in a recent article in *Political Studies*. Another perspective is provided by Blühdorn (2013) who assessed the role of ecology and democracy after the post-democratic turn.

⁴ In a similar vein, Vanderheiden (2008) in his book *Political Theory and Global Climate Change* investigated which methodological and conceptual tools political theory provides to analyze the political, economic and social issues caused by climate change.

other marginalized groups. In this context, the original focus on US environmental movements in the literature has been extended and a more general lens on the interaction of environmental movements, minorities, public dialogue and democracy has been applied.⁵ In sum, we can observe a general trend towards a stronger focus on the normative and political problem of climate change and the role of the state, as well as civil society actors, experts and the role of capitalism in hindering versus furthering action on climate change.

2. The Globalization Trilemma

Having sketched out these different approaches, we can see that while there are a lot of groups who want to act on climate change, such as states but also civil society actors, the lack of climate action points to competing interests and trade-offs that complicate straightforward solutions to climate change. To conceptualize this puzzle, I will demonstrate that the *Climate Trilemma* parallels Rodrik's (2011) globalization trilemma which argues that we cannot have economic hyperglobalization, democracy and national sovereignty all at once. To develop this argument, let's first have a look at Rodrik's (1997, 2011) original argument, as well as some of contemporary responses to this trilemma.

In his books *Has Globalization Gone Too Far?* and *The Globalization Paradox* Rodrik argues that hyperglobalization, so the removal of most barriers to trade, has undermined state's capacity to determine their own economic and political goals, thus affecting their ability to govern themselves, as well as the impact of democratic decision-making on the making of these policies. Rodrik terms this the "trilemma of the global economy" in which the three policy goals or

⁵ Critical theory and the theories of the Frankfurt School have also experienced a revival to assess the role of civil society actors as well as the state in the context of environmental challenges (Consider for example Biro 2011; Brulle 2010, Lipschutz 2011; Schlosberg 2004).

paradigms of hyperglobalization, national sovereignty and democracy appear incompatible. Depending to a large extent on trade and minimizing trade barriers can negatively affect the stability and sovereignty of states. Instead, Rodrik argues that in fact states with large exposure to trade need big governments and wider safety nets, rather than the other way round. Implicit in this argument is the observation that national sovereignty enables states to agree to regulations, but international regulation can subsequently also infringe on national sovereignty by binding state's capacity to devise their own rules. In short, Rodrik thus argues that the full benefits of "maximum" or "hyperglobalization" could only be reaped if countries agreed to abide by the same set of rules which would have to be overseen by some form of global government. This, in Rodrik's view, is not only unlikely, but also undesirable as it would infringe on states' capacity to sovereign and democratic decision-making.

These observations echo those of Karl Polanyi's in the middle of the 20th century. Polanyi (1944) argued that the expansion of markets endorsed by liberal societies led to social disorganization which strengthened support for anti-liberal movements such as communism and fascism that reinforced mass conversion. In response to Polanyi's observations, Ruggie (1982) analyzed the concept of "embedded liberalism" which aims to find a middle way between economic nationalism and laissez-faire liberalism and free trade. Preempting Rodrik's observation that free trade can undermine state sovereignty and national democracy, embedded liberalism sought to compromise at the level of free trade and strengthen national welfare systems in response to more tightly integrated international markets. This system was however abandoned in the 1980s with the increasing privatization of public goods and the curtailment of the welfare state (Ruggie 1982, 398). More recently, scholars such as Stiglitz (2017), Sachs (2020) and Mazzucato (2022) have reinforced the need to strengthen state capacities and return to increased multilateral

cooperation in face of growing inequalities and economic volatility. In the context of economic integration and globalization, we can therefore observe a growing concern with the trade-offs between these different paradigms of national sovereignty, democracy and the market to tackle problems of market instability and growing inequality, as well as international crises, such as the pandemic or climate change.

3. The Climate Trilemma

Having elaborated the economic trilemma, the subsequent question is why this matters at all to thinking about climate change. One may argue for example that the global climate is conceptually very different from the economic sphere. However, similar to rising inequalities in the case of the world economy, a heating climate will require some form of collective action to prevent further temperature rises and to address the impact of climate change, which in turn raises political and normative questions on how to best do this. To conceptualize this challenge, I argue that the economic trilemma can be translated and modified to the context of climate change and provide us with important insights about the normative trade-offs that favoring either paradigm entails. I will demonstrate that the *Climate Trilemma* presents us with the three paradigms of first, democracy, including grassroots movements, second, national sovereignty, which allows states to enter into agreements, and third, ecocapitalism, or some form of market-based approach to solving or addressing climate change. Importantly, I do not propose a solution to overcome the trilemma, but I will focus on why particularly from an environmental justice perspective the democratic paradigm is important to mediating the trilemma.

3.1. Grassroots/ Political/ Democratic

Beginning with the democratic dimension, for Rodrik (2011) this paradigm refers mainly to democratic politics within the state. Therefore, Rodrik argues that with deepened economic globalization, the paradigm of democracy gets infringed on, unless we should create a global political community which transcends the domestic democratic boundaries.⁶ In the context of climate change, the concern with the democratic dimension has been focal from the beginning - starting with environmental justice concerns that pointed out discriminatory treatment of minorities in a supposedly egalitarian democratic society in the US. Later, scholars such as Eckersley (2004), Dryzek (1997), and Dobson (2003) more explicitly discussed ways of pushing for strengthened climate action in constitutional democracies.⁷ On the other hand, the approach of eco-authoritarianism has defended the idea that climate change has made democracy obsolete, as democracy is unable to introduce sufficient constraints on individuals' liberty and employ long-term solutions to counter climate change (consider for example Ophuls 1977; or Leeson 1979). Similarly, Beeson (2010, 2019) has argued that authoritarian regimes or "environmental populists" may be better equipped to respond to climate change. Most recently, Mittiga (2022) sparked a heated debate with his article in the *American Political Science Review* which discusses the limits of democratic legitimacy in the context of climate change.

What we can see from this discussion is that there exist two crucial concerns with democracy. One concern is whether democracy is empirically capable of confronting climate change, and the second is whether democracy is normatively valuable in the context of addressing

⁶ Rodrik (2011, 18) dismisses democratic global governance as a chimera, as to be successful and effective it would require stronger accountability mechanisms than are possible and desirable to establish.

⁷ Also important is Eckersley's (2011) book *The Future of Representative Democracy* in which she discusses how nature advocacy could formalize bringing up ecological concerns, values and interests. Additionally, scholars such as Stevenson and Dryzek (2014) have discussed how deliberative democracy could be brought to bear on questions of environmental justice and climate governance.

climate change. Even though these concerns are closely interlinked, they are not the same, and in this paper, I will only answer the latter one with a definitive yes. With regards to the first one, I will demonstrate that it is in fact a choice we face, embodied in the Climate Trilemma, which paradigm we seek to infringe on in reacting to climate change. If we want to maintain democracy, we may infringe on the dimensions of national sovereignty or the ecocapitalist paradigm.

Prior to making this decision however, the second concern of whether democracy is normatively valuable in the context of climate change is crucial to address. As we have seen above, there is a range of literature that seeks to address the question of how democracy might be strengthened in the context of climate change and why it is important in the first place. For example, Schlosberg's (2007) book *Defining Environmental Justice* traces how grass-roots level demands for community-based participation in environmental leadership became a focal concern in the environmental justice literature. Pellow (2011) as well as Lipschutz and McKendry (2011) have additionally emphasized the importance transnational environmental movements play in raising ecological concerns in international climate change negotiations. Additionally to an emphasis on grassroots level involvement, we can therefore see that in the environmental and climate justice literature, the democratic dimension has always encompassed more than formal democratic institutions. Specifically, it has always included the importance of civil society actors to affect public opinion and political outcomes both domestically and internationally.⁸ Without the grassroots dimension, who would have first raised issues of environmental racism? Who would have challenged the dumping of toxic waste in minority communities and called for more political action on it (in some cases culminating in the creation of Green parties)? And similarly, who would have raised the normative implications of climate change? Hence, we can see that environmental

⁸ Paralleling Nadia Urbinati's (2006) concept of a diarchic democracy.

movements are crucial to hold private actors or governments accountable, as well as to raising and bringing these normative issues to the public discursive space. Doing so, environmental movements also generate opposition, not only from other movements such as labor movements for example, but also from other environmental movements with a different set of demands. Especially because of these confrontations, the grassroots dimension is crucial to informing democratic decision-making and showing up normative and political conflicts of the affected communities. Thus, as a whole, the democratic paradigm is indispensable to the raising of normative issues without which the sovereign and ecocapitalist dimensions would remain blind. Nonetheless, the democratic paradigm on its own is not enough, as it relies on political and sovereign interlocutors to achieve its aims domestically as well as internationally. In the following, I will therefore discuss the normative value of national sovereignty before moving on to ecocapitalism and assessing the different trade-offs between these options.

3.2. National Sovereignty / Regulation

Moving on to the dimension of national sovereignty, Rodrik (2011, 18) specifies this paradigm surprisingly little beyond a basic understanding of national self-determination. In the context of economic globalization, Rodrik explains how particularly economic integration threatens states' ability to determine their own financial policies and social arrangements. Thus, national sovereignty is inherently linked to the dimension of democratic decision-making. On the other hand, and less clearly articulated by Rodrik, national sovereignty also enables states to enter into agreements in the first place. In this context, Cohen (2012, 26) has noted that the concept of sovereignty "involves a claim to supreme authority and control within a territory signifying the coherence, unity, and independence of territorially based political and legal community". This

implies that sovereignty has internal as well as external decision-making authority and is mainly defined in the negative - lack of interference confirms sovereignty. However, especially external sovereign decision-making authority allows a state to enter into agreements with other states and institutions. Therefore, sovereignty is not so much an “organized hypocrisy” as Krasner (1999) has famously argued, but sovereignty has developed precisely to enable states to enter into binding agreements that may seem to infringe on this sole decision-making power. The most paradigmatic example of this infringement on sovereignty as an absolute or sole law-giving authority, is the ratification of human rights treaties that define *universal* individual rights rather than individual rights vis-a-vis the state. In that sense, entering into and ratifying international agreements does not signal a lack of sovereign capacity, but a state executing its sovereignty. Additionally, Cohen (2012, 37) notes that (contra Kelsen) sovereignty is not only a conception of public law but is also constituted by “social facts” that include shared communicative practices and action-orienting norms which legitimate internal legal decision-making procedures.

We might ask next why sovereignty is empirically or normatively valuable. We might for example argue that climate change seems to present a regulatory problem in which states are tempted to free-ride on other states’ cuts in carbon emissions and therefore international agreements will only ever go so far in achieving real change. Additionally, we might argue that even if we achieve some form of effective regulation, this is not based on states’ capacity to enter into agreements or their sovereign decision-making authority, but may also present hegemonic forms of regulation. Examples of this case are the California or Brussels Effect, coined by Vogel (1995) and more recently by Bradford (2020), in which a large market effectively forces its trading partners to abide by its internal rules. In the case of California this has for example led to other US states adopting similar environmental regulations to be able to sell their products in California.

Similarly, Bradford (2020) argues that the European Union has a tremendous effect on its trading partners' domestic regulations. Thus, in this case, it is not states' external decision-making authority which allows them to abide by some form of regulation, but the copying of regulation based on the economic interest to operate in a certain market. Alternatively to this indirect hegemonic form of affecting domestic regulation in other states, Haas (1993) has argued that if a limited number of actors, also known as "k-group", can achieve sufficient benefits from an international agreement, they can solidify its validity and thus pressure other states into joining. In this context, Nordhaus (2021, 1975) has argued that even if not all states abide, a small but significant number of actors would suffice to get the ball rolling on a universal carbon tax for example. In all these cases, it seems that it is not necessarily the sovereignty of all states that counts in the decision-making processes, but the authority of some relevant players that effectively impose their interests on others. Thus, why should we care about the paradigm of national sovereignty at all? Why not opt for these informal hegemonic treaties for which only a few states are needed, or why not give up on the paradigm of national sovereignty altogether and opt for some global democratic regime with a similar open or implicit form of hegemony?

One empirical problem lies with the scope this regime would require, as well as the difficulty in scaling accountability mechanisms and institutions to the global stage. More important however, is the aspect that even if not fully realized (remembering that sovereignty is a negative concept), the paradigm itself is still useful and important in allowing states to express differing interests and again, raise normative concerns in developing normative frameworks on the transnational level. Similarly to the discussion of who raises normative concerns in the domestic context, on the international level, these can be both transnational grassroots movements and states. That is, even if in effect some players have significantly higher influence on international

treaties, this does not mean that we need to throw out the baby with the bathwater. Instead, national sovereignty can give us an access point to discussing disparities, and how to best remedy or overcome these, rather than relying on some form of well-intentioned eco-hegemony. Raising concerns of distributive justice, national sovereignty not only allows states to enter into preferential agreements, but also gives them the agency to push for more inclusive treaties if these should not be so. Giving up on national sovereignty would therefore not imply overcoming hegemony, but would remove the avenues for expressing grievances and pushing for change in the first place. This observation is mirrored in the works of Barry and Eckersley (2005), as well as Christoff and Eckersley (2013) who try to show that instead of only considering the state as the main culprit of climate change, the concept of the state and national sovereignty also provides an important tool to facilitating and instating environmental policy transnationally. In sum, the concept of national sovereignty therefore remains a complex but normatively valuable paradigm, especially in the context of achieving climate-related international regulation.

3.3. Ecocapitalism

Considering the third and last paradigm, Rodrik (2011) is particularly concerned with the negative impact free trade policies have and how these may be mediated. He therefore occasionally lumps together the dimensions of national sovereignty and democracy. While I have differentiated these two paradigms in more detail in the previous paragraphs, in this paragraph I will assess the third paradigm of ecocapitalist solutions to climate change in more depth. I will draw some parallels to Rodrik's account of the development of free market policies, as these are informative to explaining how similar attitudes have come about in climate conversations, especially in the debate around ecocapitalism, and what challenges these approaches may pose.

To begin, Rodrik (2011, 28) explains that even though the beginning of globalization is often set equal with Adam Smith and his book *Wealth of Nations*, the 18th and 19th century were actually marked by strong protectionist tendencies. Only with the embrace of the gold standard from the 1870s onwards, capital became more mobile and globalization took up speed. In the 20th century then, globalization received a blow with the Great Depression in 1914, the abandonment of the gold standard in the 1930s and the establishment of the Bretton Woods regime post-World War Two which represented a decisive departure from the gold standard and reinforced states' authority in determining their own monetary and fiscal policies. This consensus was later abandoned with the rise of stagflation and a growing conviction that not more but less regulation was susceptible to overall growth. Thus, beginning in the late 1908s the world saw a rise in privatization and economic growth, but a simultaneous rise in financial instability and a loss of states' sovereign authority to determine their own fiscal and monetary policies. Rodrik (2011, 111) further argues that in fact the Bretton Woods era experienced the largest economic growth and least amount of inequality. Therefore, Rodrik argues that it is not less regulation that allows for greater economic growth, but states with strong governments fare particularly well in the global economy. Adding on to this, Pistor (2019) has recently argued that capital consists of an asset and its legal coding and therefore, markets cannot exist independently from legal systems which in turn depend on the existence of governments. To separate the working of government and transactions thus fails to consider the complex interaction of both, as well as the dependency of capital on the law-giving capacity of governments.

Going back to the matter of climate change, we can observe a similar trend of the development of free market ideology in the context of economic globalization. To begin, we have seen that the environmental justice and climate justice literature has been critical of capitalism and

the free market since its inception, with scholars like Ophuls (1979) and Bullard (1990) decrying discriminatory acts by both governments and private corporations, and scholars such as Christoff and Eckersley (2013) assessing the environmental impact of globalization. More importantly however, there has also been a rise in literature that has *embraced* capitalism as a way to mitigate climate change and discussed the role experts, markets and technology can play in this context. The literature of sustainable management or development for example has a clear management oriented approach which primarily concerns itself with the technical and economic side of climate change (Scerri 2012). Building on the ideas of sustainable development, ecomodernism or ecopragmatism has in recent years won more traction. This literature emphasizes that to confront the challenge of climate change, “human development, modernization, and technological innovation” have to be fully embraced (Latour 2011, 17). Additionally, Shellenberger and Nordhaus (2007) have argued that the environmental movement has gone awry in embracing ever more apocalyptic visions. Instead, to address climate change, technology such as nuclear power, and a combined strategy of fossil fuels and renewable energies will have to be pursued, as well as the idea that talk about the necessity to change and moralize destructive American lifestyles will be a dead end. Summarizing this view, a number of scholars have written the “ecomodernist manifesto” which describes that humans must use their “growing social, economic and technological powers to make life better” (Asafu-Adjaye et al. 2015, 7). This means that to address climate change, humans will require the acceleration of technological processes such as agricultural intensification, nuclear power and desalination, in short, processes of modernization, to maintain the same standards of living and global development while creating space for non-human species. In that sense, ecomodernists or ecopragmatists seek to *decouple* human development from nature and science from politics, as well as strengthen capitalist development

in order to spur technological and economic growth with the hope that this will also address climate change.⁹

How does this approach then connect back to Rodrik's paradigm of free markets and hyperglobalization? First, Rodrik (2011, 60) himself draws an analogy between international trade and technology - similarly to international trade, technology is supposed to free up labor and make everyone better off (a claim Rodrik himself refutes). Second, it is important to note that this paradigm only parallels, but does not imitate Rodrik's paradigm of hyperglobalization. Thus, in the context of climate change, we can observe a strong belief in humanity's capacities to "solve" the problem with new technologies (see geoengineering for example) that arise partly from an innovation-focused sector that endorses liberal market policies. Kallis and Bliss (2019) trace the origins of ecomodernism or ecopragsmatism back to the mid-2000s in the San Francisco Bay Area and demonstrate how it was supposed to counter the "failure" of US environmentalism's preoccupation with apocalyptic scenarios. Further, the two scholars argue that the ecomodernist paradigm is particularly successful because it achieves to align powerful economic interests with their ideal climate policies, as these stakeholders benefit from arguing that accelerated capitalist modernization will sufficiently address climate change. Thus, instead of pursuing comprehensive social *and* economic change, the ecomodernist approach seeks to strengthen capitalist growth and effectively *depoliticizes* the climate crisis.¹⁰

What are some critiques of this approach then and why might it not be enough? To begin with, general critiques such as the Marxist ecologist critique argue that to understand the ecological

⁹ Ben Mylius' dissertation does an excellent work in analyzing the problematic conception of decoupling humans from nature. Bookchin (1995, 4) and her book on *Re-enchanting Humanity* might be considered a precursor to this approach, as she critiques antihumanists and technophobes for failing to recognize the "exceptional rational faculties human beings alone possess".

¹⁰ A recent addition to this approach is blockchain-utopianism which seeks to employ blockchain technology to address the most important problems humanity faces. Alternatively, market activism also seeks to use economic methods to affect green capitalism.

crisis, we have to understand the material conditions encompassing the globalized markets and class relations and their destructive impact on the environment (Kovel 2007, Luke 2014). Thus, the solutions mentioned above are fundamentally misguided, as instead of tackling the root of the problem, these solutions perpetuate the capitalist development which led to the destruction of nature and the climate crisis in the first place.¹¹ Similarly to this approach, scholars as Jackson (2017) have pointed out that instead of opting for linear growth and ever more prosperity, climate change demands a rethinking of the concept of growth which takes seriously the finite resources and implements a circular model of an economy, rather than a linear one. Hamilton (2014) and Gardiner (2010) have further argued that pursuing an ecomodernist emphasis on economic growth and geoengineering to combat climate change represents an anthropocentric hybris: instead of taking seriously the negative impact human activity has on nature, this approach sees the solution in raising human interference in the environment to an unprecedented level.

Additionally, the ecomodernist approach obscures that it is not only different interests at stake, but the intensity of interests differs. In this context, Scerri (2018) has made the important observation that the sustainable development and ecomodernist lens contribute to preserving existing structures of privilege and that technical decisions cannot be uncoupled from the larger political, social and environmental impacts that they have. Thus, if left to the market, new technologies and supposedly ecocapitalist growth will not necessarily be in accordance with environmental justice demands. Further, even if the state were to support technological

¹¹ Kallis and Bliss (2019, 474) have analyzed the ecomodernist perspective in more detail and argued that especially the ecomodernists' manifesto relies heavily on developmental theories such as Kuznets hypothesis which argues that development is initially coupled with pollution and increased inequality but after a certain point, both these costs decrease and growth can be decoupled from environmental damage. The problem is, Kallis and Bliss (2019, 474) argue, that these theories have been empirically and theoretically refuted (see Dunlap and Mertig, 1997; Martínez-Alier 2002), as poor people for example have the least carbon impact, but also that these theories obscure the damage rich states do to the environment and poorer states more generally, exactly by failing to lower their carbon emissions in the pursuit of economic growth .

development, it is impossible to determine which technologies or approaches to favor over others to achieve some form of climate justice if the political dimension is left out of play.

From this discussion we can see that while the ecomodernist prism resonates with the desire to combat climate change with minimal changes and the least costs, it risks sidelining larger political, social and environmental concerns, thus in fact depoliticizing the need to act on climate change. Additionally, the ecomodernist paradigm implies a certain techno-utopianism which shifts the onus of whether the program is going to work to a supposedly better future without making the necessary large-scale changes now.

4. What do the trade-offs consist of?

Discussing the different paradigms of the trilemma, we have seen that overfocusing on each of these paradigms risks sidelining normative and practical concerns. Additionally, we can observe more generally that addressing climate change seems to infringe on at least one of these paradigms. To recall, I argued that the climate trilemma parallels the trilemma of the global economy in that of the three paradigms of national sovereignty, democracy and ecocapitalism, only two paradigms can be satisfied at the same time. What do these trade-offs look like then, specifically in the context of climate change?

Beginning with the paradigms of national sovereignty and democracy, any approach that falls along this axis would honor these two paradigms, while infringing on the third, in this case ecocapitalism. The paradigm of national sovereignty in this context implies that states could decide to go it alone, as well as enter agreements or unions to address climate change. One approach that falls along this axis is Bellamy's (2013) proposal of a demoi-cracy which envisions that national democratic institutions of a state are supplemented with international democratic institutions which

determine the governing rules of the respective states' international relations. This concept supplements Rodrik's idea that hyperglobalization is only possible if mutually agreed rules are regulated by a global accountable government. In the context of climate change this approach would allow us to re-politicize certain questions such as what market structure may be most conducive to addressing climate change and whose interests should be honored most. However, it is important to note that the concept stems from the European context and it is thus not clear how applicable it would be in a global context and with regards to climate change, where interests diverge even more strongly with some states being much more at risk than others. An alternative approach along this axis is the realist paradigm in which states may combine democracy and national sovereignty to decide not to enter into agreements or only half-heartedly and mostly walk the walk alone. Thus, each state decides by themselves which economic approach to favor, as well as which other adaptations to make in the face of climate change. However, as we saw earlier, this may not suffice to achieve the necessary economic and political changes to effectively address climate change. In other words, the lack of some kind of global or international agreements could accelerate the road to "Climate Barbarism" in which wealthier nations are externalizing the burdens of climate change onto poorer nations without being held accountable (Klein 2019).¹²

Moving on, we may therefore instead opt to focus on the paradigms of national sovereignty and the ecocapitalism nexus, infringing on the dimension of democracy. From what we have seen before, the ecomodernist approach itself favors a strong technology/capitalism focused approach and a lesser involvement of the democratic public, while also limiting the role of the state. Thus, the ecocapitalist approach represents a paradigm by itself, but may also be coupled with either

¹² This aspect has been elaborated in more depth by scholars such as Shue (2014), Caney (2009, 2010, 2014), Eckersley (2004), and Vanderheiden (2013), who discuss the ethical and practical imperative for a global effort to address climate change and its implications.

democracy or national sovereignty and move closer towards one of these axes. If coupled with national sovereignty, ecocapitalism, as we have seen earlier, risks depoliticizing important normative and political questions, and places an exaggerated hope in technologies and the market to solve environmental justice concerns. In this context, a further approach that falls along the national sovereignty-ecocapitalism axis, is an epistemic approach which favors experts-guidance over more democratic approaches to tackling climate change. Haas (1990) for example discusses epistemic communities and places special emphasis on the role knowledge-based groups play in affecting cooperative economic and political arrangements among states. However, Haas (1990, 56) also notes that agreements will be particularly strong if the epistemic communities achieve to embed their claims in the national policy making process.¹³ This hints at the complex relationship between expert knowledge, national sovereignty and democracy, where particularly the latter often falls short. In this context, it is important to note that while the epistemic approach seems appealing due to its knowledge-based orientation, it again risks depoliticizing important normative concerns, similarly to the ecomodernist approach we observed above. The same goes for ecoauthoritarian approaches that envision some form of international ecoauthoritarian alliance to defeat climate change. Not only is unclear who would hold these ecoauthoritarian governments accountable and avoid that they lose their commitment to address climate change, but it also depoliticizes the different and legitimate grievances that have to be addressed in the context of climate change, presupposing a universal solution to address these.¹⁴

Finally, we may opt to favor the ecocapitalist and democracy dimension, in the form of a global democratic institution that determines which green technologies to invest in and how to

¹³ This resonates with Habermas' (2001) observation that relying too much on expert knowledge in democracies can further strengthen the state's legitimacy crisis.

¹⁴ Mittiga (2021) has for example argued that even though undesirable, climate change may give authoritarian states more legitimacy in securing the survival of humanity.

ecomodernize globally. While the scope of this approach would be unprecedented, it would also significantly infringe upon the paradigm of national sovereignty. While one may argue that this is necessary to address climate change in a comprehensive way, it again risks removing an effective means for the most affected states to express their grievances and demand action. This is the same problem that we are confronted with in Wainwright and Mann's (2018) proposal of some form of planetary sovereignty in which the nation-state is supplemented and ultimately replaced with a global concern to save the planet from the most catastrophic consequences of climate change.¹⁵ The problem is that not everyone will share the same concern for climate change or see the need to act on it. Thus, global democracy may as well lead to a total lack of action on climate change. In a way this echoes Walzer (1992, 171) and Miller's (2012) critique of cosmopolitanism which cautions against the utopia to envision humanity as a "single universal tribe" and argues that this idea neglects the plurality and particularity of human communities. Thus, giving up on national sovereignty may lead again to unintended hegemonies, while stripping states of their capacity to both express their grievances and enter into agreements with each other.

Are there really no ways of overcoming these trade-offs then? And what are we left with then?

5. Ways to mediate the Climate Trilemma

Being presented with these different trade-offs reinforces the essential observation that climate change is much more than an apolitical or amoral scientific problem that needs to be solved

¹⁵ The rise of blockchain technology, most commonly known through its application in e-currencies such as Bitcoin, has also revived the debate about whether governments are necessary or if their functions can be substituted by alternative systems based on mutual transactions rather than government authority. In response to this ideal, Pistor (2019) makes the convincing claim that capital consists in an asset and its legal coding and therefore, markets, including markets built on blockchain technologies, cannot exist independently from legal systems which in turn depend on the existence of governments.

with some kind of technical innovation or some uniform global set of rules. Instead, the trilemma points to the need to make informed decisions that take these normative concerns into account, and perhaps move back and forth between different axes, rather than assuming one correct way out. As we saw earlier, there exist a few attempts to overcome the tensions the trilemma presents in the economic context. I noted that for example Ruggie (1982) argues for the concept of “embedded liberalism” which aims for both economic nationalism and some form of free trade. In a parallel fashion, we may argue that states should have both the opportunity to decide their own domestic climate policies, while entering into agreements with other states when they see fit, to reduce their carbon footprints and find some environmentally just solutions. However, this approach underestimates the international interdependencies that climate change presents us with, which make cooperation essential, as well as paying special attention to those who are affected the most. Most importantly, climate change presents us with the imperative to avoid a race to the bottom in which (particularly rich) states attempt to do the least and leave the heavy lifting to others. Thus, some form of climate-adapted embedded liberalism alone may not ensure that states go far enough in addressing climate change and issues of climate justice.

Therefore, I argue that the most crucial but underestimated paradigm in dealing with climate change is the dimension of democracy and both domestic and transnational civil society engagement. This paradigm emphasizes the need to consider different voices and normative concerns. While one may argue that certain agreements can be achieved with a k-group of influential states, as we discussed earlier, or proposed by an epistemic community, sustainable and far-reaching change cannot forego the public dimension. Even if this dimension presents us with a plurality of voices, concerns and interests which may disagree on the need for certain climate policies, they are important to overcome the blind spots of the paradigms of national sovereignty

and ecocapitalism, and have productive conversations about the different interests at stake. In this context, movements come into play and prove crucial, as they are the ones who represent a major group of agents who raise, address and focus on rethinking the good as well as how humans relate to and are part of nature. While some of these claims may also be adapted and taken up on by corporate agents for example, it is movements who typically raise the normative issues which later orient political decision-making. As we saw in our discussion of the grassroots dimension, environmental movements were the first to call out practices of toxic dumping and the discriminatory effect it had on minorities - movements have been at the start of demanding change in the way we treat the environment coupled with social justice concerns, and they will stay at the core of social and environmental demands in the face of climate change in the future. Thus, any mediation of the climate trilemma will have to take seriously the democratic dimension and grassroots-level involvement if it is to aim for an environmentally just outcome.

6. Conclusion

While there remains much to explore, such as the specific role movements play and their interaction with formal democratic institutions for example, or how specifically expert knowledge interacts with both national sovereignty, market solutions and the paradigm of democracy, with this paper I hope to have conceptualized the tensions that we encounter when trying to hold on to different norms and institutions and also achieve just and effective solutions to respond to climate change. My main argument is that we are presented with a similar trilemma as in the global economy, in which national sovereignty, democracy and the free market build an incompatible triangle. In the context of climate change, I argued that we are confronted with the participation of grassroots-level actors, the national sovereignty of states and ecocapitalist solutions, as well as

strategies that fall within and between these different paradigms. Instead of giving up on the paradigm of democracy in favor of some global solution or a ecocapitalist strategy, I argued that it is in fact environmental movements at the grassroots level which first brought up calls for environmental justice and which should continue to play a central role in any comprehensive and just approach to climate change.

References

Asafu-Adjaye, John, Linus Blomqvist, Stewart Brand, Barry Brook, and Ruth Defries. 2015. *An Ecomodernist Manifesto*.

Barry, John, and Robyn Eckersley. 2005. *The State and the Global Ecological Crisis*. Cambridge, MA: MIT Press.

Beeson, Mark. 2010. "The coming of environmental authoritarianism." *Environmental Politics* 19 (2): 276-294.

---. 2019. *Environmental Populism: The Politics of Survival in the Anthropocene*. Palgrave Macmillan.

Bellamy, Richard. 2013. "'An Ever Closer Union Among the Peoples of Europe': Republican Intergovernmentalism and Democratic Representation within the EU." *Journal of European Integration* 35 (5): 499-516. <https://doi.org/10.1080/07036337.2013.799936>.
<https://www.tandfonline.com/doi/pdf/10.1080/07036337.2013.799936?needAccess=true>.

Biro, Andrew, ed. 2011. *Critical Ecologies: The Frankfurt School and Contemporary Environmental Crises*. Toronto: University of Toronto Press.

Blühdorn, Ingolfur. 2015. "A Much-Needed Renewal of Environmentalism?" In *The Anthropocene and the Global Environmental Crisis*, 156-167. Routledge.

Bookchin, Murray. 1995. *Re-Enchanting Humanity: A Defense of the Human Spirit Against Antihumanism, Misanthropy, Mysticism, and Primitivism* London, New York: Casell Publishers.

Bradford, Anu. 2020. *The Brussels Effect: How the European Union Rules The World*. Oxford: Oxford University Press.

Bulle, Robert J. 2010. "Politics and the Environment." In *Handbooks of Sociology and Social Research*, 385-406. Springer New York.

Bullard, Robert. 1990. *Dumping in Dixie: Race, Class, and Environmental Quality*. Boulder: Westview Press.

Burkett, Paul. 1999. *Marx and Nature - A Red and Green Perspective*. New York: St Martin's Press.

Caney, Simon. 2005. "Cosmopolitan Justice, Responsibility, and Global Climate Change." *Leiden Journal of International Law* 18 (4): 747-775.

---. 2009. "Climate Change and the Future: Discounting for Time, Wealth, and Risk." *Journal of Social Philosophy* 40 (2): 163-186.

---. 2014. "Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens." *Journal of Political Philosophy* 22 (2): 125-149.

Cohen, Jean L. 2012. *Globalization and Sovereignty - Rethinking Legality, Legitimacy, and Constitutionalism*. Cambridge University Press.

Dobson, Andrew. 2003. *Citizenship and the Environment*. Oxford University Press.

Dryzek, John S. 1997. *The Politics of the Earth: Environmental Discourses*. Oxford University Press.

Dryzek, John S., Richard B. Norgaard, and David Schlosberg, eds. 2011. *The Oxford Handbook of Climate Change and Society*. Oxford: Oxford University Press.

Dunlap, Riley, and Angela Mertig. 1997. "Global Environmental Concern: An Anomaly for Postmaterialism." *Social Science Quarterly* 78 (1).

Eckersley, Robyn. 2004. *The Green State*. MIT Press.

---. 2011. "Representing Nature." In *The Future of Representative Democracy*, edited by Sonia Alonso, John Keane and Wolfgang Merkel. Cambridge: Cambridge University Press.

Gardiner, Stephen. 2010. "Is "Arming the Future" with Geoengineering Really the Lesser Evil?: Some Doubts about the Ethics of Intentionally Manipulating the Climate System." In *Climate Ethics: Essential Readings*, edited by Stephen M. Gardiner, Simon Caney, Dale Jamieson and Henry Shue. Oxford: Oxford University Press.

Haas, Peter M. 1990. "Obtaining International Environmental Protection through Epistemic Consensus." *Millennium: Journal of International Studies* 19 (3): 347-363.
<https://doi.org/10.1177/03058298900190030401>.

Habermas, Jürgen, and Max Pensky. 2001. *The Postnational Constellation: Political Essays*. The MIT Press.

Hamilton, Clive. 2014. "Geoengineering and the politics of science." *Bulletin of the Atomic Scientists* 70 (3): 17-26. <https://doi.org/10.1177/0096340214531173>.

Hoekman, Bernard, and Charles F. Sabel. 2019. "In a World of Value Chains: What Space for Regulatory Coherence and Cooperation in Trade Agreements?" In *Megaregulation Contested*, 217-239. Oxford University Press.

- Holland, Breena. 2008. "Justice and the Environment in Nussbaum's "Capabilities Approach".
Political Research Quarterly 61 (2): 319-332. <https://doi.org/10.1177/1065912907306471>.
- Kallis, Giorgos, and Sam Bliss. 2019. "Post-environmentalism: origins and evolution of a strange idea." *Journal of Political Ecology* 26 (1): 466. <https://doi.org/10.2458/v26i1.23238>.
- Klein, Naomi. 2014. *This Changes Everything: Capitalism vs. the Climate*. New York: Simon & Schuster.
- Kovel, Joel. 2007. *The enemy of nature - The end of capitalism or the end of the world?* London: Zed Books.
- Krasner, Stephen D. 1999. *Sovereignty: Organized Hypocrisy*. Princeton University.
- Leeson, Susan M. 1979. "Philosophic Implications of the Ecological Crisis: The Authoritarian Challenge to Liberalism." *Polity* 11 (3): 303-318.
- Lipschutz, Ronnie D., and Corina McKendry, eds. 2012. *The Oxford Handbook of Climate Change and Society*. Oxford: Oxford University Press.
- Luke, Timothy. 2015. "Karl Marx: Critique of Political Economy as Environmental Political Theory." In *Engaging Nature: Environmentalism and the Political Theory Canon*, edited by Peter Cannavò and Joseph H. Lane. Cambridge, MA: MIT Press.
- Martinez-Alier, Joan. 2002. *The Environmentalism of the Poor - A Study of Ecological Conflicts and Valuation*. Cheltenham: Edward Elgar Publishing.
- Mazzucato, Mariana. 2022. *Mission Economy - A Moonshot Guide to Changing Capitalism*. London: HarperCollins.
- Miller, David. 2012. *National responsibility and global justice*. Oxford University Press.
- Mittiga, Ross. 2021. "Political Legitimacy, Authoritarianism, and Climate Change." *American Political Science Review*: 1-14. <https://doi.org/10.1017/s0003055421001301>.
- Mohai, Paul, David Pellow, and J. Timmons Roberts. 2009. "Environmental Justice." *Annual Review of Environment and Resources* 34 (1): 405-430. <https://doi.org/10.1146/annurev-environ-082508-094348>.
- Naess, Arne. 1973. "The Shallow and the Deep, Long-Range Ecology Movement. A Summary." *Inquiry* 16: 95-100.
- . 2014. " "Our Mission."." <http://www.deepeco.org/mission.html>.

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

Nordhaus, William. 2021. *The Spirit of Green : The Economics of Collisions and Contagions in a Crowded World*. Princeton: Princeton University Press.

Ophuls, William, A. Stephen Boyan, and Thomas E. Lovejoy. 1992. *Ecology and the politics of scarcity revisited*. W.H. Freeman.

Ottinger, Gwen, and Benjamin Cohen, eds. 2011. *Technoscience and Environmental Justices Expert Cultures in a Grassroots Movement* Cambridge, MA: MIT Press.

Pellow, David Naguib. 2017. *What is Critical Environmental Justice?* Hoboken: Wiley Publishing.

Pistor, Katharina. 2019. *The Code of Capital: How the Law Creates Wealth and Inequality*. Princeton University Press.

Polanyi, Karl. 1944. *The Great Transformation*. Boston: Beacon Press.

Revkin, Andrew. 2014. "Exploring Academia's Role in Charting Paths to a 'Good' Anthropocene." *The New York Times*, 2014.

Rodrik, Dani. 1997. *Has Globalization Gone Too Far?* Washington, D.C.: Institute for International Economics.

---. 2011. *The Globalization Paradox*. New York: W.W. Norton & Co.

Ruggie, John Gerard. 1982. "International regimes, transactions, and change: embedded liberalism in the postwar economic order." *International Organization* 36 (2): 379-415. <https://doi.org/10.1017/s0020818300018993>.

---. 2004. "Reconstituting the Global Public Domain — Issues, Actors, and Practices." *European Journal of International Relations* 10 (4): 499-531. <https://doi.org/10.1177/1354066104047847>. <https://research.hks.harvard.edu/publications/getFile.aspx?Id=131>.

Sachs, Jeffrey. 2020. *The Ages of Globalization: Geography, Technology, and Institutions*. New York: Columbia University Press.

Scerri, Andy. 2012. *Greening Citizenship - Sustainable Development, the State and Ideology*. London, New York: Palgrave Macmillan.

---. 2018. *Postpolitics and the Limits of Nature: Critical Theory, Moral Authority and Radicalism in the Anthropocene*. Albany: SUNY Press.

Schlosberg, David. 2007. *Defining Environmental Justice: Theories, Movements and Nature*. Oxford; New York: Oxford University Press.

Shearman, David J. C., and Joseph W. Smith. 2007. *The climate change challenge and the failure of democracy*. Praeger Publishers.

Shellenberger, Michael, and Ted Nordhaus. 2007. *Break Through: From the Death of Environmentalism to the Politics of Possibility*. Boston, New York: Houghton Mifflin Company.

Sinnott-Armstrong, Walter. 2005. "It's not My Fault" - Perspectives on Climate Change: Science, Economics, Politics, Ethics. edited by Richard B. Howarth. Bingley, UK: Emerald Group Publishing Limited.

Smith, Joseph Wayne, David J. C. Shearman, and Sandro Positano. 2007. *Climate change as a crisis in world civilization*. Edwin Mellen Press.

Stevenson, Hayley, and John S. Dryzek. 2014. *Democratizing global climate governance*. Cambridge University Press.

Stiglitz, Joseph E. 2017. "The overselling of globalization." *Business Economics* 52 (3): 129-137. <https://doi.org/10.1057/s11369-017-0047-z>.

Taylor, Dorceta E. 2000. "The Rise of the Environmental Justice Paradigm." *American Behavioral Scientist* 43 (4): 508-580. <https://doi.org/10.1177/0002764200043004003>.

Urbinati, Nadia. 2006. *Representative democracy*. University of Chicago Press.

Vanderheiden, Steve. 2008. *Atmospheric Justice - A Political Theory of Climate Change*. Oxford: Oxford University Press.

Vogel, David. 2018. *California Greenin': How the Golden State Became an Environmental Leader*. Princeton: Princeton University Press.

Wainwright, Joel, and Geoff Mann. 2018. *Climate Leviathan: A Political Theory of Our Planetary Future*. Verso.

Walzer, Michael. 1992. "The New Tribalism: Notes on a Difficult Problem." *Dissent* 39: 164-171.