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In Defense of National Climate Change Responsibility: A Reply to the Fairness Objection

I. INTRODUCTION

Wealthy countries¹ have emitted over 50 percent of the global greenhouse gas (GHG) emissions that cause climate change.² The United States alone has contributed 25 percent of the world's emissions since 1751.³ These wealthy nations continue to be major contributors to the climate change problem despite their capacity to reduce emissions and despite knowledge of the widespread—potentially catastrophic—impacts of climate change.⁴ Given their wealth and ability to curb emissions, I assume that wealthy

1. I am grateful for written comments on earlier versions of this paper from Debra Satz, Tamar Schapiro, John Broome, Chris Field, Juliana Bidadanure, and two Associate Editors from this journal. I also benefited from discussions with Melissa Lane, Peter Singer, Rob Socolow, Rob Reich, Brian Berkey, Lily Lamboy, Ted Lechterman, Glory Lui, Chris Lewis, Ben Miller, Kevin Mintz, Kian Mintz-Woo, and David Peña Rangel. Earlier versions of this paper were presented at the MANCEPT Workshop on Climate Change, Mitigation, and Imperfect Duties in September 2018 as well as to audiences at Stanford University, Princeton University, and the University of Maryland, Baltimore County.

This paper focuses only on functioning liberal democracies and does not take a stand on whether ill-functioning, ill-liberal or ill-functioning and ill-liberal nations ought to be held responsible for their contributions to climate change. I also set aside the difficult question of what poor or middle-class high emitters owe as a matter of justice.

- 2. A graph by "Our World in Data" estimates that the United States, Australia, Canada, and the 28 countries of the European Union alone have emitted 52 percent of the total GHG emissions since 1751. Hannah Ritchies and Max Roser, " CO_2 and Greenhouse Gas Emissions," Last Modified August 2020, https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions.
 - 3. Ibid.
- 4. Throughout this paper, I use "nation" and "state" interchangeably to refer to a "self-governing society. . .with the power to make laws for itself." Janna Thompson, *Taking Responsibility for the Past: Reparation and Historical Injustice* (Cambridge: Polity Press, 2002), 5.

high emitters do wrong by their emitting. In addition to the forward-looking responsibilities wealthy high emitters have in light of their ability to combat climate change,⁵ I assume wealthy high emitters also have backward-looking responsibilities to the victims of climate change. This paper focuses exclusively on the question of what wealthy high emitters owe in light of their contribution to the problem. As a matter of corrective justice, policy makers and philosophers commonly argue that wealthy high-emitting nations ought to be held responsible for the climate change damages they cause.⁶ Corrective justice requires that if an agent commits

5. See Henry Shue, "Global Environment and International Inequality," *International Affairs* 75, no. 3 (July 1999): 531-45.

6. The call to hold wealthy high-emitting nations responsible for contributing to climate change is familiar in both international and domestic legal and policy contexts. Several developing nations, as well as low-lying nations and small island states, which are considerably vulnerable to climatic changes, have called for holding wealthy high-emitting nations responsible for their contribution to the climate change problem. For example, see UNFCCC, Proposed Elements of a Protocol to the United Nations Framework Convention on Climate Change, Presented by Brazil in Response to the Berlin Mandate (30 May 1997), https://unfccc. int/cop4/resource/docs/1997/agbm/misc01a3.htm. Cases have been brought against several high-emitting nations in domestic courts suing for compensation or demanding action on climate change. For discussion of litigation, see Maxine Burkett, "Climate Reparations," Melbourne Journal of International Law 10 (2009): 518-20; Daniel A. Farber, "Climate Change Justice and the China Fallacy," West-Northwest Journal of Environmental Law and Policy 15, no. 1 (2009): 359-79; D. Hunter and J. Salzman, "Negligence in the Air: The Duty of Care in Climate Change Litigation," University of Pennsylvania Law Review 155, no. 6 (June 2007): 1741-94: Joana Setzer and Rebecca Byrnes, "Global Trends in Climate Change Litigation: 2019 Snapshot," London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science (2019). Several thinkers in the climate change ethics debate have defended holding high-emitting nations responsible for climate change. See: Anil Agarwal and Sunita Narain, Global Warming in an Unequal World: A Case of Environmental Colonialism (New Delhi: Centre for Science and Environment, 1991); Ludvig Beckman, "Democracy, National Responsibility, and Climate Change Justice," Democratization 19, no. 5 (2012): 843-64; Simon Caney, "Climate Change and the Duties of the Advantaged," Critical Review of International and Political Philosophy 13, no. 1 (2010): 203-28; Daniel A. Farber, "The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World," Utah Law Review no. 2 (2008): 377-413; Stephen M. Gardiner, A Perfect Moral Storm: The Ethical Tragedy of Climate Change (Oxford: Oxford University Press, 2011), 433-34; Stephen Gardiner, "Accepting Collective Responsibility for the Future," Journal of Practical Ethics 5, no. 1 (2017): 22-52; David Heyd, "Climate Ethics, Affirmative Action, and Unjust Enrichment," in Climate Justice and Historical Emissions, ed. Lukas H. Meyer and Pranay Sanklecha (Cambridge: Cambridge University Press, 2017); Catriona McKinnon, Climate Change and Future Justice (New York: Routledge, 2012), 72-106; Eric Neumayer, "In Defence of Historical Accountability for Greenhouse Gas Emissions," Ecological economics 33, no. 2 (May 2000): 185-92; Henry Shue, "Global Environment"; Henry Shue, "Historical Responsibility, Harm

an injustice, then they have a duty to repair any damages imposed on victims. In the case of climate change, this repair could take many forms, including GHG mitigation, financing GHG mitigation, compensating climate change victims, or paying into a fund designed to help communities adapt to a changing climate.⁷ For my purposes in this paper, I leave open the question of how high emitters ought to repair the harms they do.

Focusing on nations as the unit of agency for holding agents responsible for climate change has both practical and theoretical advantages. Not only are nations a central unit of agency in the current global political regime but focusing on nations is a way to capture the intergenerational injustices of climate change. As a single agent spanning centuries, a nation could be held responsible to the victims of climate change in 2020 for harm done in 1850 or 2050 for harm done in 1990. Because nations survive changes in membership, they could, in principle, be held responsible for deeds done before its current citizenry were even born.

However, a significant contingent of thinkers finds little if any ground for holding wealthy high-emitting nations responsible for climate change.⁸

Prohibition, and Preservation Requirement: Core Practical Convergence on Climate Change," *Moral Philosophy and Politics* 2, no. 1 (Sept 2015): 7-31; Janna Thompson, "Historical Responsibility and Climate Change," in *Climate Justice and Historical Emissions*, ed. Lukas H. Meyer and Pranay. Sanklecha (Cambridge: Cambridge University Press, 2017); Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), 143–80.

- 7. Several practicable compensation and reparations schemes have been discussed. See McKinnon, *Climate Change and Future Justice*, 103–6; Daniel A. Farber, "Basic Compensation for Victims of Climate Change," *University of Pennsylvania Law Review* 155, no. 6 (June 2007): 1605–56. Mitigating GHGs is technically speaking a way of avoiding harm and not a form of repairing harm. Nevertheless, I assume mitigation or financing mitigation count as forms of repair under a theory of corrective justice for climate change.
- 8. There are many arguments to this conclusion, which I will not consider in this paper. One argument proceeds from the premise that nations are not moral agents. Cass R. Sunstein and Eric A. Posner, "Climate Change Justice," in *John M. Olin Law & Economics Working Paper, No. 354* (Chicago: University of Chicago Law School, 2007), 21–22; Eric. A. Posner and Cass. R. Sunstein, "Climate Change Justice," *Georgetown Law Journal* 96, no. 5 (June 2008): 1595; Eric A. Posner and David Weisbach, *Climate Change Justice* (Princeton: Princeton University Press, 2010), 101. Another set of arguments holds that for much of these nations' histories, they were excusably ignorant of doing any harm. For general discussion on the excusable ignorance objection, see Axel Gosseries, "Historical Emissions and Free-Riding," *Ethical Perspectives* 11, no. 1 (2004): 39–41; Lukas. H. Meyer and Dominic Roser, "Climate Justice and Historical Emissions," *Critical Review of International Social and Political Philosophy* 13, no. 1 (2010): 233; Lukas. H. Meyer, "Compensating Wrongless Historical Emissions of

One of the many seemingly devastating objections against national climate change responsibility is what I will call the "Fairness Objection" (FO). The FO holds that national responsibility unfairly holds people responsible for the wrongdoings of others, many of whom are long dead.⁹ When discharging its moral obligations to the victims of climate change, a nation will have to draw on its general revenue, imposing costs on current citizens.¹⁰ However, current citizens are personally responsible for a fraction

Greenhouse Gases," *Ethical Perspectives* 11, no. 1 (2004): 20–35; Posner and Sunstein, "Climate Change Justice," 1598–600. For defense against the excusable ignorance objection, see Neumayer, "In Defence of Historical Accountability," 188; Stephen Gardiner and David Weisbach, *Debating Climate Ethics* (Oxford: Oxford University Press, 2016): 111–15; Caney, "Climate Change and the Duties," 208–10; Daniel Butt, "Historical Emissions: Does Ignorance Matter," in *Climate Justice and Historical Emissions*, eds. Lukas H Meyer and Pranay Sanklecha (Cambridge: Cambridge University Press, 2017): 61-79. My aim in this paper is not to give a full defense of national responsibility for climate change. Instead, I aim to remove one weighty objection from consideration.

9. The FO applies to contemporaries as well as noncontemporaries. Unless citizens bear costs in proportion to emissions, low emitters will be required to bear the costs of high-emitting individuals. Also, as Caney points out, new citizens will be required to bear the costs associated with the emissions of native-born citizens. Simon Caney, "Environmental Degradation, Reparations, and the Moral Significance of History," Journal of Social Philosophy 37, no. 3 (2006): 469-70. This paper mainly focuses on fairness issues that arise between noncontemporaries, which are perhaps the hardest cases for defenders of national responsibility. However, my arguments apply wherever the FO arises. Versions of the FO have been given by several thinkers in the debate, including Brian Berkey, "Benefitting from Unjust Acts and Benefitting from Injustice: Historical Emissions and the Beneficiaries Pays Principle," in Climate Justice and Historical Emissions, eds. Lukas H. Meyer and Pranay Sanklecha (Cambridge: Cambridge University Press, 2017): 129-130; Caney, "Environmental Degradation, Reparations," 469-71; Simon Caney, "Cosmopolitan Justice, Responsibility and Global Climate Change," Leiden Journal of International Law 18, no. 4 (2005): 756-61; Gosseries, "Historical Emissions and Free-Riding," 41; Lukas. H. Meyer, "Why Historical Emissions Should Count," Chicago Journal of International Law 13, no. 2 (2012): 608; David Miller, "Global Justice and Climate Change: How Should Responsibilities Be Distributed," Tanner Lectures (2008): 128; Darrel Moellendorf, "Climate Change and Global Justice," Wiley Interdisciplinary Reviews: Climate Change 3, no. 2 (March-April 2012): 135-36; Darrel Moellendorf, The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy (Cambridge: Cambridge University Press, 2014), 166-69; Sunstein and Posner, "Climate Change Justice," 20-31; Posner and Sunstein, "Climate Change Justice," 1592-1602; Posner and Weisbach, Climate Change Justice, 100-1; Gardiner and Weisbach, Debating Climate Ethics, 214-18.

10. Darrel Moellendorf and other proponents of the FO often understand the costs to citizens in terms of the nation's general revenue collected through taxation or secured through the reduction of publicly provided goods. Moellendorf, "Climate Change and Global Justice," 135; Avia Pasternak, "Limiting States' Corporate Responsibility," *Journal of Political Philosophy* 21, no. 4 (December 2013): 361–81. However, as an anonymous Associate Editor for this

of their nation's cumulative emission. It is unfair to hold today's citizens responsible for deeds others did. If the FO goes through, a nation's responsibility for climate change would be limited to the extent that its currently living members are personally responsible for contributing to climate change. For many thinkers, the FO is the end of the road for arguments that defend national responsibility across multiple generations. Indeed, Axel Gosseries argues that any account of holding a high-emitting nation responsible across multiple generations would require adopting a "holistic/collectivist approach," abandoning what he calls "moral individualism," the indispensable tenet that individuals, not groups, are the focus of moral concern. ¹¹

I contend that discussions of the FO too quickly dismiss the collectivist response. I argue that there is a collective responsibility arrangement consistent with moral individualism and defensible against the FO. I argue that the FO rests upon a problematic assumption. Like most climate change ethicists who defend national responsibility for climate change, proponents of the FO assume—usually without argument—that a nation's responsibility is simply the sum of the responsibility of its members and that holding nations responsible just is to hold their members responsible. As assumptions about collective responsibility go, this one seems rather benign. It is straightforwardly consistent with moral individualism as well as methodological individualism, the doctrine that the explanations of social phenomena must be given exclusively in terms of individual agency and action.

However, I argue that the assumption that national responsibility distributes to personal responsibility overlooks crucial reasons why nations ought to be important sites of responsibility for climate change in the first place. Nations have tolerated and even encouraged high-emitting activities for decades through *corporate* actions empowered by the rule of law. High-emitting nations create, maintain, and encourage fossil fuel-intensive infrastructure and high-emitting activities and social patterns. These moral

journal pointed out, the costs are, in fact, more complicated than this. Costs could include reducing surplus from a switch to green energy or the loss of competitive advantage due to the financing of green energy projects in developing nations. I assume throughout this paper that the FO applies when members incur any costs as a result of their nation's being held responsible for climate change.

^{11.} Gosseries, "Historical Emissions and Free-Riding," 42.

failings, I argue, are different from the sum of the moral failures of even very high-emitting individuals. The moral failure of high-emitting nations is constituted by intergenerational institutions governed by the rule of law, including physical infrastructure, policy, and, in most high-emitting nations, the absence of emissions regulations. Instead of the distributive account assumed by proponents of the FO, I defend an alternative account of national responsibility in which the nation as a whole is held responsible without the nation's responsibility distributing to its members. I then show that my account of national responsibility is consistent with methodological individualism.

In defending my account of national responsibility against the FO, I highlight another mistake that proponents of the objection make. They assume that all responsibility is personal responsibility.¹² They assume that members of a high-emitting nation are being held privately responsible for wrongs done by their nation. In my view, when costs distribute to current members of the nation through taxation or other means, it is a mistake to think that citizens are being held personally accountable for private wrongdoing. Instead, I argue that members bear these costs out of a duty of citizenship to underwrite the expenses of their nation.

This paper is organized into four sections. Section II presents the FO and fills in the details of the often-implicit assumption that a collective's responsibility is the sum of the responsibility of its individual members. In Section III, I argue that the core moral failings of wealthy high-emitting nations should not be understood in terms of the sum of its individual members. Instead, I argue that wealthy high-emitting nations' moral failing ought to be understood in institutional terms as the corporate actions of nations, sometimes over decades. Section IV defends my alternative account of national responsibility in which a nation is held responsible as a whole against the objections that it is inconsistent with individualism and shields those at fault from responsibility. Section V defends my account of national climate change responsibility against a version of the FO.

Before I give an account of the FO, preliminary remarks will help to clarify the scope of this paper and its major assumptions. I assume for the

^{12.} Robert K. Fullinwider, "The Case for Reparations," *Philosophy & Public Policy Quarterly* 20, no. 2/3 (2000): 1–8.

sake of argument that other objections to national responsibility can be overcome so that I can focus on the FO. For example, while I acknowledge the importance of concerns about the excusable ignorance of past emitters, I bracket discussion on that issue here. Next, the FO is not a question about whether or not nations are moral agents that are fit to be held morally responsible, 13 and it is not a question of whether nations are morally responsible for their high emissions. Instead, the FO concerns whether or not wealthy high-emitting nations ought to be held responsible for their contributions to climate change. 14 Christian List and Phillip Pettit helpfully distinguish between being morally responsible and being held morally responsible. 15 "We think someone is responsible when we think they satisfy conditions sufficient for being a candidate for blame or approval; we hold them responsible when we go one step further and actually blame or approve." This further step could involve a range of interventions from criminal punishment to apology to compensation. This paper focuses on this further step of holding agents responsible. I assume that wealthy high-emitting nations are morally responsible agents and consider whether they ought to be held responsible. I do, however, discuss in this paper how to understand the moral wrong done by wealthy liberal democratic nations. Section III dispenses with the common assumption that the

- 13. Christian List and Phillip Pettit, Group Agency: The Possibility, Design, and Status of Corporate Agents (Oxford: Oxford University Press, 2011), 154.
- 14. Robert Goodin distinguishes between blame and task responsibility. Blame responsibility involves assigning blame (or praise) or moral fault (or virtue). Task responsibility involves the assignment of duties and jobs that need doing—regardless of the tasker's role in bringing the need about. Robert E. Goodin, *Utilitarianism as a Public Philosophy* (Cambridge: Cambridge University Press, 1995), 109. Blame responsibility is the notion of moral responsibility assumed by the versions of the FO I consider. I argue against the FO that nations ought to be held blame responsible for their emissions and citizens ought to be held task responsible (out of civic duty) to bear the costs of their nation's obligations. See also Anna Stilz, "Collective Responsibility and the State," *Journal of Political Philosophy* 19, no. 2 (June 2011): 194.
- 15. Some argue against national responsibility in the climate change context because collectives are not moral agents. Sunstein and Posner, "Climate Change Justice" 21–22; Posner and Sunstein, "Climate Change Justice," 1593; Posner and Weisbach, *Climate Change Justice*, 101. These arguments assume a view that Christian List and Phillip Petit call "eliminativism" about group agency. Eliminativists deny that groups can have collective attitudes and that groups can act. They hold that collective-agent-talk simply refers to a metaphor or a fiction used to describe the interaction between individual agents. In my view, proponents of the FO assume—at least for the sake of argument—that eliminativism is false, and that nations are collective agents that can be held responsible for their actions.
 - 16. List and Pettit, Group Agency, 154.

moral failure of wealthy high-emitting nations is limited to the sum of their members' emissions. I defend an institutional account of nations' moral failure that explains and justifies why imposing costs on citizens is perfectly fair.

II. THE FAIRNESS OBJECTION

The FO charges that holding a nation responsible for climate change is unfair to individual members of the nation on the grounds that individuals will be held responsible for the misdeeds of others. The argument is familiar from broader criticisms of collective responsibility. Social practices and institutions involving forms of vicarious responsibility, including suretyship, are not tolerated under liberal forms of governance. Children should not be punished for the sins of their fathers. Holding groups responsible may be objectionable even in the context of noncriminal offenses. For example, it would be unfair to require a child to pay to repair a damaged vase her clumsy parent broke in a China shop. These judgments about vicarious responsibility appeal to a general principle, which I call the Fairness Principle: all things equal, it is unfair to hold one agent responsible for the consequences of another agent's actions. Is I assume that the Fairness Principle is a reasonable principle.

Proponents of the FO argue that national responsibility for climate change violates the Fairness Principle. The argument begins with the observation that a nation must draw on its general revenues to fund the costs of repairing climate change damages. Members of the nation will ultimately bear the costs. Assuming that the responsibility "devolves with the costs," as Moellendoerf puts it, holding a nation responsible just is to hold its current members responsible. If the nation is held responsible for its cumulative emissions since 1751 or 1965 or 1990 or another relevant point in time, many current members would be held responsible for

^{17.} Moellendorf's discussion of the FO appeals to a set of concerns that are unique to fault-based accounts. In addition to suggesting that national responsibility is unfair to members of responsible nations, Moellendorf argues that national responsibility for fault would undermine the basis of the fault-based account, which is to hold the guilty responsible for wrongs *they* do.

^{18.} I use a version of the Fairness Principle articulated by Gosseries, who suggests that the principle is a hallmark of individualist moral theories, which "do not consider that a person may be held responsible for consequences of someone else's action." Gosseries, "Historical Emissions and Free-Riding," 41.

consequences of actions done by others before they were born. This violates the Fairness Principle. It is unfair to hold current members responsible for damages that are the consequences of others' actions. The FO implies that national responsibility arguments must be limited to include *only* contributions to climate change during the lifetime of a nation's currently living members. Assuming that part of the appeal of holding nations responsible for climate change is that they can exist for multiple generations, this is a considerable limitation.

The standard strategy for replying to the FO is to go in search of living individuals who are personally responsible for the wrongs of climate change, and who therefore ought to pay for it. Perhaps the most popular response is to argue that even if members should not be held responsible for other people's activities, they ought to be held responsible because they wrongfully benefit from those activities. ¹⁹ While I agree that benefitting from injustice may be a morally relevant factor, I take a different tack in this paper. I reject the assumption that national responsibility must be understood in terms of the sum of the responsibility of its individual members. The following subsection aims to make this assumption about how collective responsibility ought to be arranged explicit. Section III argues that the assumption cannot account fully for national climate change responsibility.

II.A. The Assumption of Distributive Collective Responsibility in Arguments for the Fairness Objection

A key premise of the FO is that when a nation is held responsible, the citizens of that nation are held responsible. In contemporary liberal democracies, the costs of holding a collective agent responsible will inevitably distribute to its members through taxation or other means. Whether or

19. For the response to the FO that beneficiaries should pay because their benefiting is wrongful, see Shue, "Global Environment and International Inequality"; Henry Shue, "Subsistence Emissions and Luxury Emissions," Law and Policy 39 (January 1993): 39-60; Shue, "Historical Responsibility, Harm Prohibition"; Caney, "Environmental Degradation, Reparations," 471-76. For a general defense of the beneficiary pays approach to climate change justice, see Neumayer, "In Defence of Historical Accountability"; Edward A. Page, "Give It up for Climate Change: A Defence of the Beneficiary Pays Principle," International Theory 4, no. 2 (July 2012): 300-30; Robert Huseby, "Should the Beneficiaries Pay?" Politics, Philosophy & Economics (2013): 209-25; Heyd, "Climate Ethics, Affirmative Action, and Unjust Enrichment." For a related discussion on free-riding on past injustice, see Gosseries, "Historical Emissions and Free-Riding."

not the responsibility "devolves with the costs," as Moellendoerf phrases it, depends upon a further normative claim about how collective responsibility ought to be arranged.

Joel Feinberg distinguishes between distributive and nondistributive collective responsibility arrangements.²⁰ On nondistributive collective responsibility (NCR) arrangements, the collective is held responsible as a whole as a corporate agent regardless of its members' guilt or innocence. Since the costs of holding the collective responsible inevitably distribute to its members, NCR arrangements seem highly unfair because they may involve holding innocent group members morally responsible for wrongs done by others. NCR often involves pernicious forms of vicarious collective responsibility, which is familiar from examples of grade schoolteachers who punish the whole class for the misdeed of a single student or group of students. This form of collective responsibility is thought to be justified in some circumstances for pragmatic reasons, despite its unfairness.²¹ Moreover, it is an effective kind of law enforcement under specific historical circumstances in which it is among the most efficient tactics available.²² However, vicarious liability is found to be especially unfair. Vicarious collective responsibility, by definition, involves holding some accountable for the wrongdoing of others. As I will argue below in Section V, however, not all forms of NCR involve vicarious collective responsibility.

In contrast, on a distributive collective responsibility (DCR) arrangement, the whole group is held responsible through the fault of *all* its members. This effectively means that the moral responsibility of the group is the sum of the moral responsibility of its members. This arrangement is "distributive" in the sense that holding the collective responsible just is to hold its members responsible. The classic example of DCR is a crime ring. Holding the crime ring responsible just is to hold each individual member personally responsible for her share of the crimes committed.

^{20.} Joel Feinberg, "Collective Responsibility," in *Collective Responsibility: Five Decades of Debate in Theoretical and Applied Ethics*, eds. Larry May and Stacey Hoffman (Savage, MD: Rowman & Littlefield Publishers, 1991): 53-76.

^{21.} Daryl J. Levinson, "Collective Sanctions," Stanford Law Review 56, no. 2 (November 2003): 345-428.

^{22.} Feinberg, "Collective Responsibility."

^{23.} Ibid.

DCR is far less controversial than NCR. Unlike NCR arrangements, DCR arrangements are straightforwardly consistent with methodological individualism and do not require positing the existence of a corporate agent that is more than the sum of its individual members. Indeed, on DCR arrangements, holding a group responsible just is to hold its individual members responsible. In debates over national responsibility for climate change, thinkers are rarely explicit about whether or not they assume collective responsibility is DCR or NCR. 24 However, it is highly plausible that most thinkers assume that national climate change responsibility should be understood in terms of DCR. After all, the core concern of the FO is that a DCR arrangement would ultimately be unfair in the context of climate change. Innocent members of a nation will be held responsible not for the nation's misdeeds as a whole but for the misdeeds of others. Furthermore, the nation's responsibility for its contribution to climate change is often assumed to be the sum of its member's contribution to climate change over time. These are the markings of a DCR arrangement.

A visualization will clarify the structure of DCR and guide further discussion. Consider a simple schematic that I have adapted from a figure drawn by Robert Fullinwider. Imagine two groups, X and Y. When X wrongs Y, X's duty to repair the wrong done to Y can be represented in terms of a horizontal relationship between the two groups. Fullinwider expresses this relationship of "moral casualty" between *Groups* X and Y with a horizontal arrow: $Y \leftarrow X$. The moral relation is horizontal because it involves an interagential relation between agents on equal footing. The moral relation is direct because the duty of the wrongdoer to compensate her victim(s) correlates to the right(s) of the victim(s) for compensation.

Holding Group X responsible for wrongs done to Group Y on a DCR arrangement just is to hold each individual member of X responsible to

^{24.} Vanderheiden is the exception. His argument straightforwardly assumes that collective responsibility arrangements must be DCR to be viable, arguing that NCR is a pernicious form of vicarious responsibility. Vanderheiden, *Atmospheric Justice*, 143–80.

^{25.} We can understand this horizontal relationship in terms of what Janna Thompson calls the rights-centered approach to responding to wrongdoing. Thompson, *Taking Responsibility*, 39. On this approach, the wrongdoer has a duty to the victim to repair the loss inflicted either by restoring the victim to her preinjury condition or compensating for losses when restoration is not possible.

^{26.} As will be clear in Figure 3 below, a vertical line in this schema represents vertical relations between agents who have special obligations based on their role in an organization.

$$\begin{cases} y_1, y_2, y_3, \dots y_n \} \leftarrow \{x_1\} \\ \{y_1, y_2, y_3, \dots y_n\} \leftarrow \{x_2\} \\ \{y_1, y_2, y_3, \dots y_n\} \leftarrow \{x_3\} \\ & \cdot \\ & \cdot \\ \{y_1, y_2, y_3, \dots y_n\} \leftarrow \{x_n\} \end{cases}$$

Figure 1 The Distribution of Group X's Responsibility to Group Y to each Member of $X(x_{1-n})$

$$\begin{array}{l} V \leftarrow \{e_1\} \\ V \leftarrow \{e_2\} \\ V \leftarrow \{e_3\} \\ & \cdot \\ & \cdot \\ V \leftarrow \{e_n\} \end{array}$$

Figure 2 The Distribution of High-Emitting Nation E's Moral Responsibility to the Victims of Climate Change V to each Member of E (e_{1-n})

each individual member of Y. Figure 1 illustrates this by connecting each member of X, x_{1-n} , to each member of Y, y_{1-n} .

On DCR arrangements, the responsibility Group X has to Group Y is understood in terms of the interpersonal moral relationship between members in the groups. In many cases, horizontal relations will vary between group members. For example, as a member of a crime ring, x_1 , who held the gun, might be more responsible to the victims for the crime than x_{10} , who drove the getaway car.

DCR arrangements are, in principle, uncontroversial. So long as each member is held responsible according to her moral contribution, no one is held vicariously responsible. So, there is no violation of the Fairness Principle. However, DCR arrangements set a high bar for holding groups responsible because they require establishing horizontal relationships between each individual wrongdoer and each individual victim. This presents many problems in the case of climate change on both sides of the horizontal relationship. For example, Eric Posner and David Weisbach

argue that particular victims of climate change will be difficult to identify. Since this paper is concerned with fairness to the duty-bearers on the right side of the horizontal relationship, I will assume that the victims of climate change ought to be treated as a class. Figure 2 depicts holding a high-emitting country, E, responsible to V, the victims of climate change as a class. Country E's moral responsibility is simply the sum of the moral responsibility of each of its individual adult members since the Industrial Revolution, e_{1-n} to the victims of climate change as a class, V.

Due to the long-time horizon of the climate change problem, implementing a DCR arrangement in the climate change case is bound to violate the Fairness Principle. If everyone who was an adult in 1850 were still alive, then the case of climate change might be more like the crime ring. Each member could be held responsible for their share of the damage without violating the Fairness Principle. Because of the passage of time, however, actually holding the United States, for example, responsible for its wrongful contributions to climate change since 1850 would effectively hold current members of the United States responsible for the deeds of other people. As Posner and Weisbach point out, as of 2010, more than half of the population of the United States were born after 1975 and more than 27 percent were younger than 20 years old. 28 Into the future, fewer and fewer Americans could be held morally responsible for twentiethcentury emissions without violating the Fairness Principle. Under DCR arrangements, despite being temporally extended agents, nations could only be fairly held responsible for the wrongful contributions they have made during the lifetime of their citizens.

The assumption of the DCR arrangement plays a crucial role in the argument for the FO. It supports the claim that a nation's responsibility is the sum of its members' responsibility. Since many members of wealthy high-emitting nations are now dead, holding a nation responsible for climate change will unfairly hold the more-or-less innocent responsible for the misdeeds of others. My argument in this paper is that the Fairness Objection does not go through once national responsibility for climate change is appropriately understood. I argue that nations should be held responsible nondistributively through arrangements in which their citizens underwrite the cost of repairing the harms to the victims of climate

Posner and Weisbach, Climate Change Justice, 108-09.
Ibid., 103.

change out of their duty of citizenship. In the next section, I argue that the assumption of DCR in arguments for the FO misconstrues the moral responsibility of wealthy high-emitting nations, which, I argue, is more than the sum of its individuals' emissions.

III. THE MORAL FAILINGS OF WEALTHY HIGH-EMITTING NATIONS

In this section, I argue that the core moral failings of wealthy high-emitting nations are institutional and cannot be captured by summing individual responsibilities. I argue that regardless of whether individuals are at fault for their emissions, nations—through their corporate actions—wrong by emitting. Once this is established, the question of whether high-emitting nations ought to be held responsible for their climate change contribution is no longer a question of whether it is fair to hold one person responsible for another's misdeeds, but of whether and when members of a group ought to bear the costs of their group's moral debts. I defend an answer to this question by proposing an NCR arrangement for national climate change responsibility in Sections IV and V.

It would be a mistake to understand the moral failure of wealthy highemitting nations exclusively in terms of the sum of their members' private moral failings. Individual emitters living in wealthy nations act against the backdrop of social, economic, and physical infrastructure conducive to high-emitting lifestyles.²⁹ Furthermore, flagrant high emitters—those individuals with far above average emissions—get the power and standing to emit such high amounts from the law, which tolerates and even promotes such behavior.³⁰ In the case of the United States, the state has held in

29. The state plays and could play a significant role in the legal, social, economic, and physical conditions in which individuals act. Consider several possible actions. Nations could coordinate discrete individuals' market transactions across multiple generations to reduce the negative effects that accumulate from individual market transactions. Nations could make solo flights in private jets prohibitively costly. Nations could use market mechanisms or regulation to boost the renewable markets in energy, transportation, and production to lower the emissions of all. Nations could institute regulations that require corporations to reduce their emissions or to phase out high-emitting products. The nation could alter transportation infrastructure to make daily commuting by private vehicle cost prohibitive or inconvenient. The nation could promote vegetarian diets and lift meat industry subsidies.

30. An important study shows that a tremendous amount of emissions come from the world's highest emitting individuals. Shoibal Chakravarty et al., "Sharing Global CO₂ Emission Reductions among One Billion High Emitters," *Proceedings of the National Academy of Sciences* 106, no. 29 (2009): 11884–88. These individuals are spread throughout the world but

place decades-old legislation that incentivizes the extraction, sale, and consumption of fossil fuels. Whatever the moral failings of individuals and associations, nations' moral failure consists in large part of a series of corporate actions over decades. These corporate actions create, maintain, and strengthen the fossil fuel regime, entrenching high-emitting social and economic practices.³¹ I contend that this moral failure at the institutional level is not captured by the sum of the *personal* moral failings of individuals.

In what follows, I argue that high-emitting nations (as a whole) can wrongfully harm by emitting, even if it is assumed that all their individual members are privately innocent of wrongdoing. In defending this claim, I use John Rawls' distinction between two kinds of social rules and a Rawlsian institutional division of labor to identify two ways wealthy high-emitting nations—holistically—morally fail. After giving an account of the institutional moral failure of nations, I consider the objection that nations' moral failure ought to be understood in terms of the sum of its members' political responsibilities as citizens, voters, legislators, officeholders, et

are concentrated in wealthy high-emitting nations. I contend that they are enabled by the governments in which they live. Authors of the study defend holding individuals responsible for their emissions using the power of the state. I argue, in reverse, that states also ought to be held responsible for enabling and failing to curtail such high-emitting behaviors. Thanks to Rob Socolow for many fruitful conversations on this study.

31. In my thinking about the kind the moral failure of high-emitting nations, I am indebted to Robert Fullinwider's argument in his "The Case for Moral Reparations." While I do not think the climate change case is analogous to the case of black reparations, the role of the nation in maintaining the circumstances of unjust interactions bears a resemblance. Fullinwider argues that it is a mistake to think of wrongs done to African Americans by the United States in terms of the sum of individual wrongdoings:

Although countless individual Americans throughout our history exploited their position or standing to oppress African Americans, that power and standing itself derived from law—first the latitude of the English Crown, then from the Constitution of 1787 (which accepted slavery in the states where it was established), and finally from the tissue of post-Civil War "Jim Crow" laws, rules, and social conventions that enforced de jure and de facto racial segregation. The chief wrongs done to African Americans, thus, were not simply the sum of many individual oppressions added together but were the corporate acts of a nation that imposed or tolerated regimes of slavery, apartheid, peonage, and disenfranchisement.

Fullinwider, "The Case for Reparations," 3. In the case of racial oppression, the wrongs that were done to African Americans, Fullinwider argues, include the corporate acts of the nation, which through the rule of law, imposed and tolerated racist social practices.

cetera. I maintain that an account of national climate change responsibility limited to the DCR approach cannot fully capture the moral failure of high-emitting nations.

III.A. Two Kinds of Social Rules and the Institutional Division of Labor

I begin by considering John Rawls' "important though obvious point" that injustice can arise even though no one acts unfairly.³² Some injustices cannot be eliminated even though the perfect enforcement of transactional rules. Transactional rules are enforced through the legal system that governs individual agreements, including the law of contract and rules about fraud and duress. Rawls uses the example of wage agreements, which could become unfair over time, even if no particular agreement is deemed unfair. Market power could consolidate over time even if no one acts unfairly, eventually leaving laborers with little to no bargaining position.³³ Despite no one acting unfairly in their transactions, the accumulation of effects from many wage contracts over multiple generations could result in the erosion of the fair conditions against which transactions take place. Rawls calls this erosion of fair conditions "background injustice."

Rawls solves the problem of background injustice by introducing the division of institutional labor. In addition to transactional rules, Rawls argues that a just society requires a separate set of rules governing the background conditions against which individual transactions take place. The rules of background institutions effectively constrain individual transactions in order to maintain background justice. In the wage agreement example, operations in the background adjust for the tendency toward unfairness through taxation or regulation, leaving individuals free to make their own agreements against a fair background. As Miriam Ronzoni puts

32. John Rawls, *Political Liberalism* (New York: Columbia University Press, 2005), 267. I draw on Samuel Scheffler's discussion of Rawls' distinction, which is often labeled a "division of moral labor." Scheffler restricts the label "division of *moral* labor" to express a Rawlsian form of value pluralism in which the social institutions are guided by principles of justice, while individuals and private groups are to be guided by other principles and values. This is in contrast to, for example, utilitarian theories, which offer a complete and general theory for all contexts. Samuel Scheffler, "The Division of Moral Labour," *Proceedings of the Aristotelian Society, Supplementary Volumes*, 79, no. 1 (2005): 229–53. In contrast, the division of institutional labor is intended to solve the problem of securing background justice. I follow Scheffler in keeping the moral division of labor and the institutional division of labor distinct. My focus here concerns only the institutional division of labor.

33. Rawls, Political Liberalism, 267.

it, the rules of social institutions "impose external constraints" on transactional rules, "by preserving certain relevant patterns, and just background conditions through those patterns."³⁴ In the case of the labor market, the rules of background institutions would require, among other things, the redistribution of wealth to prevent the consolidation of market power.³⁵

Transactional rules alone would fail to constrain the tendency toward unfairness because they are designed to apply one transaction at a time and must not be too difficult to comply with. For example, in making their own wage agreements, individuals should not be expected to track the accumulative effects of their decisions combined with hundreds of wage agreements over decades. Individuals making those agreements may not have the epistemic position to predict the impacts of *their* agreement over generations.

Returning to the case of climate change, I submit that a nation's moral failure should be understood in terms of a failure of the legal system to implement transactional rules against egregious emitting activities as well as in terms of a failure to create background institutions to mitigate against the tendency for the emissions of very many people to accumulate to produce climate change impacts. Climate change may be like wage agreements in that transactional rules alone could not fully mitigate against the unjust accumulative effects over decades of many separate transactions. Hyunseop Kim has argued that household-level emitting decisions present a problem of background justice in this way. 36 Regardless, I contend that some transactional rules could be implemented to prevent high-emitting activities. For example, governments could outlaw, fine, or regulate the burning off of natural gas at oil-well sites, a common practice when transporting the natural gas to market costs more than the value of the gas. Governments could levy fines of fees on the highemitting individuals living in their jurisdictions.³⁷ Failure to impose transactional rules through the legal system is one kind of institutional moral failing committed by wealthy high-emitting nations.

^{34.} Miriam Ronzoni, "The Global Order: A Case of Background Injustice? A Practice-Dependent Account," *Philosophy & Public Affairs* 37, no. 3 (2009): 238.

^{35.} Within this discussion, I am indebted to Miriam Ronzoni's discussion of background justice. *Ibid.*, 232–42.

^{36.} Hyunseop Kim, "An Extension of Rawls's Theory of Justice for Climate Change," *International Theory* 11, no. 2 (2019): 160–81.

^{37.} See Chakravarty et al., "Sharing Global CO2 Emission."

It could be objected that understanding nations' moral failure in terms of the failure to implement transactional rules may not capture the total harm done by wealthy high-emitting nations. For the sake of argument, imagine a wealthy nation with perfect climate change-related transactional rules. The concern is that people will find ways to avoid complying with these rules and continue to emit. Indeed, one could imagine an instance in which large amounts of noncompliance leaves 40 percent or even 50 percent of a nation's emissions unaccounted for on my account.³⁸ My first response to this objection is that it is difficult to imagine a nation with perfect climate change-related institutions in which there is such a large amount of noncompliance. Part of the state's role is to enforce its transactional rules. Such widespread failure to enforce its laws is a type of institutional failure. The state has an obligation to ensure that its citizens act according to the laws of the land, and the state bears responsibility when it so utterly fails to enforce its laws. In the United States, The Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund, is an example of a nation's response to noncompliance.³⁹ Superfund aims to enforce laws regarding pollution, hold polluters responsible, and protect communities from the harms of pollution. In my view, a nation that lacked such a response to widespread noncompliance in the context of pollution legislation would be failing morally at an institutional level. In the climate change context, the nation bears responsibility for both enforcing low emissions rules and for offsetting the impacts of noncompliance through, for example, lowering emissions in other sectors.

However, no justified enforcement system will lead to perfect compliance because the costs of perfect compliance are much too high. For example, the costs to personal freedom are much too high to justify a system that prevents all crime. The opportunity costs of perfectly enforcing antipollution rules may be prohibitive. Should the state be held responsible for reasonable levels of imperfect compliance? If a policing system is as fair and as effective as is justified, it seems the state should not be held responsible when one's car is stolen by a clever thief who evades capture. Similarly, it could be argued that the state ought not to bear responsibility for those who evade emissions rules, assuming those rules are enforced as effectively as is justified.

^{38.} I thank an anonymous Associate Editor for pressing this objection to my account.

^{39.} Thanks to Kian Mintz-Woo for suggesting this example.

As an initial response, it is worth pointing out that the emissions of the noncompliant would likely be minimal in a nation that has appropriate transactional rules and as good an enforcement system in place as is justified. It does not seem problematic to conclude that the nation is not directly morally responsible for this negligible portion of its total emissions. However, this does not settle whether or not nations ought to bear the costs of noncompliance. Even in the case of carjacking, it is not obvious who should bear the costs for actual or expected noncompliance when transactional rules are enforced as adequately as is justified. Someone must bear the costs imposed by the noncompliant. Under the prevailing system, the costs fall to car owners and private insurance; but it could be otherwise. 40 It may be perfectly reasonable to deal with the costs of the noncompliant publicly. Indeed, unlike an isolated instance of car theft, the damages from noncompliant emitters are spread out across third parties in space and time. Nations are epistemically and institutionally positioned to adjust their overall emissions to offset the predicted or actual emissions of the noncompliant to avoid these harms. The moral failure of the nation, in this case, does not involve the failure to put in place or adequately enforce transactional rules. Instead, the moral failure is better described as a kind of background institutional failure—a failure to mitigate impacts that cannot be regulated under transactional rules due, in this case, to issues related to the limits of justified enforcement.⁴¹

I have just defended the claim that nations fail morally when they lack transactional rules against high-emitting behavior and when they fail to enforce those rules adequately. This failure to implement transactional rules is only one kind of moral failing committed by wealthy high-emitting nations. The second type concerns nations' failure to institute background rules to mitigate the accumulation of impacts from individual activities that cannot be regulated by moral rules that apply to individual actions

^{40.} Simon Field has argued for placing more of the costs of car theft on the government and society at large. He argues the government should require the automobile industry to include built-in security features on vehicles. Simon Field, "Crime Prevention and the Costs of Auto Theft: An Economic Analysis," *Crime Prevention Studies*, 1 (1993): 69-91.

^{41.} For practical reasons, I do not think that the limits of enforcement always trigger responses from background institutions. There may be no adequate background institutional response to reduce the harm resulting from the government's inability to justifiably prevent all murder. Due to the nature of the problem, adjustments can be made to prevent the harms caused by those who avoid the enforcement of transactional rules related to climate change. Emissions reductions can simply be made in other areas.

and transactions. I now argue that even if no individual has violated a transactional rule or emitted impermissibly, 42 wealthy high-emitting nations fail morally by failing to implement background institutions—including changes in energy and transportation infrastructure—that reduce the accumulated effects of uncoordinated activities.

Compare the case of a high-emitting nation to Nozick's famous Wilt Chamberlain example. In that example, Nozick assumes for the sake of argument that the initial distribution of goods is just. An arrangement is made so that individual sports fans can pay a special fee to Wilt Chamberlain in addition to their entrance fee to basketball games. The special fee goes directly to Chamberlain, which makes him wealthier than others. This new distribution, Nozick argues, is perfectly just because no transactional rules have been violated. Rawls argues against Nozick that you cannot always tell whether a set of circumstances is fair by attending to moral appraisals of individual activity. The accumulative effect of even innocent activities can and often do result in unfairness. In the Wilt Chamberlain case, innocent activities accumulate to create inequalities. These inequalities are not the result of transactional injustice, but they may upset the social conditions in which interpersonal transactions take place. Hence, background justice is upset in the Chamberlain case, and background institutions are called for to restore a just distribution.

As in the Wilt Chamberlain case, whether or not a nation's emissions are just cannot be determined by only inspecting individual activity. Like Chamberlain's spectators, many emitters' activities contribute to injustice but are not necessarily unjust. In the economic case, Rawls argued that transactional rules are unavailable to prevent the erosion of background justice in some circumstances because those rules would be far too complex, epistemically demanding, and time-consuming for individuals to follow reliably and effectively.⁴³ Transactional rules are unavailable to

^{42.} I do not assume that individuals do not or cannot emit impermissibly, nor do I assume that they have no moral responsibilities to reduce their emissions. Individual moral responsibility is consistent with holding nations responsible, as I discuss further in Section IV.2. I do, however, argue that some individual emissions are permissible and they evade treatment by moral rules that apply to individual transactions. My aim here is to identify a moral failure specific to high-emitting nations, which I argue involves the nation's failure to implement background institutions that mitigate against the tendency of uncoordinated activities of individuals to accumulate in injustice. The state has this responsibility whether or not individuals have acted unjustly.

^{43.} Rawls, Political Liberalism, 267-8.

prevent all climate change injustice for similar reasons.44 It would be unduly burdensome under the current energy system to blanketly proscribe emitting or even to proscribe emitting below a sufficiency threshold. First, there are epistemic limitations. Transactional rules against emitting or reducing emissions would require ordinary people to make impossible calculations predicting the effects of their everyday actions on spatially and temporally distant people and anticipating others' actions. 45 Furthermore, rules forbidding individual emissions may be unduly demanding under the current energy and transportation infrastructure. Indeed, the costs of avoiding emitting activities under the current system can be so costly to individuals that some everyday emitting activities like driving the kids to school or using electric lights to work at nighttime are arguably justifiable. 46 Finally, individual emissions are highly determined by factors that are outside of individuals' immediate control, which would make it difficult for them to respond to the demands of transactional rules against emitting. It is estimated that 30 to 40 percent of U.S. households' carbon footprint comes from fossil fuel-based utilities and fuels.⁴⁷ Even if households were to reduce their emissions as much as they can, their emissions will be well above zero as long as their utilities, food, and

- 44. In this discussion, I am indebted to Hyunseop Kim's argument to a similar conclusion. See Kim, "An Extension of Rawls's Theory of Justice for Climate Change," 176.
- 45. Studies show that even well-intentioned people consistently fail to reduce their environmental footprint. A recent study found that people in Germany with pro-environmental attitudes changed their behavior to this end, but their actions had low environmental impact. Level of income is a better predictor of an individual's environmental impact than proenvironmental attitudes. (The higher one's income, the worse their environmental impact.) Stephanie Moser and Silke Kleinhückelkotten, "Good Intents, but Low Impacts: Diverging Importance of Motivational and Socioeconomic Determinants Explaining Pro-environmental Behavior, Energy Use, and Carbon Footprint," *Environment and Behavior*, 50, no. 6 (2017): 626–56. These findings suggest that it is too much to expect that people could succeed in obeying transactional rules against emitting even if they fully endorsed the rules and were highly motivated to abide by them. Behavioral changes at the individual level may require policy guidance, nudging, and intervention to be efficacious. See Elke U. Weber, "Climate Change Demands Behavioral Change: What Are the Challenges?," *Social Research*, 82, no. 3 (2015): 560–80. This kind of policy guidance may be part of what is required of the background institutions nations must adopt as a matter of climate change justice.
- 46. I make this argument in Blake Francis, "Moral Asymmetries in Economic Evaluations of Cliamte Change: The Challenge of Assessing Diverse Effects," in *The Ethical Underpinnings of Climate Economics*, ed. Adrian Walsh, Säde Hormio, and Duncan Purves (New York: Routledge, 2017), 141–62.
- 47. Kaihui Song et al., "Scale, Distribution and Variations of Global Greenhouse Gas Emissions Driven by U.S. Households," *Environment International*, 133 (2019): 7. The 30 to 40 percent figure includes data from the period from 1994 to 2014.

transportation depend upon an infrastructure powered by fossil fuels. Like presumably fair market transactions, many presumably permissible emitting activities can add up to a severe injustice even though no viable transactional rule has been broken. This is the first common feature between background injustice and climate change injustice: climate change injustice could arise even if no one emits unjustly.

The second common feature between background injustice and climate change injustice is that climate change impacts ought to be governed by a set of rules that apply to background institutions. Nations ought as a matter of distributive justice to mitigate the tendency toward inequality and oligarchy. Similarly, nations ought to do no harm by mitigating the tendency toward the accumulative effects of pollutants, including carbon dioxide, to impose severe harm or risk of harm on others. Even if individual emissions are permitted under transactional rules, high-emitting nations can (and arguably do) wrong the victims of climate change by failing to implement institutions in the background that are designed to reduce the accumulative effects of individual emissions over time. In the case of climate change, just social institutions in the background will include physical infrastructure and operations that use regulations and the tax system to reduce emissions. One way high-emitting nations fail morally is that they fail to create background institutions designed to mitigate the accumulated effects of many people's daily emitting activities over many generations. This injustice could be brought about, even if all individuals' emissions were innocent.

In sum, a nation does wrongful harm by emitting when it (1) fails to create and enforce transactional rules when doing so is viable and (2) when it fails to utilize its coordination capacity to reduce the effects of presumably permissible individual transactions within a fossil-fuel dependent economy. The moral failure is only made worse by observing that wealthy high-emitting nations the world over also fail to exercise their capacities to bring about the conditions required to transition, over multiple generations, to a low or no emissions economy. I have argued that this moral failure is a corporate action over and above the sum of personal individual moral failures it might contain. Hence, in Sections IV and V, I will defend a nondistributive approach to national climate change responsibility. Before doing so, I consider an alternative DCR approach to national responsibility for climate change.

III.B. Aggregate Political Responsibility

Before turning to my defense of NCR, I consider an objection to my argument that the moral failure of climate change should be understood as an institutional failure over and above the failings of particular individuals. It may be objected that my argument overlooks the fact that even if individuals are not personally responsible for the nation's emissions, they are politically responsible for the creation of high-emitting institutions. Perhaps the moral failing lies not with the nation as a whole but with the individuals who implemented the institutions in the first place. Why not, for example, attribute blame to the Sixty-fourth U.S. Congress, which in 1913 added the first fossil fuel subsidy to the tax code in the form of a tax cut on drilling costs?⁴⁸ Or blame Dwight D. Eisenhower and the Eighty-fourth Congress for creating the Federal-Aid Highway Act of 1956, which created the freeway system on which the U.S. economy is now reliant? This alternative effectively treats the nation's responsibility as the sum of its elite members' and officers' responsibility. We need not, however, focus only on the elite. Ordinary citizens may also be to blame for voting in candidates that ignore climate change or for failing to protest the injustices committed by their nation. The moral failure of highemitting nations could be understood in terms of the aggregate political responsibility of a nation's citizens. 49 Focusing on aggregate political responsibility rather than personal responsibility could provide a suitable response to the FO that is compatible with DCR arrangements of collective responsibility.⁵⁰

Simon Caney argues that this approach fails because current citizens should not be held responsible for decisions made before they had the opportunity to participate. As Caney puts it, "Can [current citizens] not reasonably complain that they were not consulted; they did not vote . . . and, as such, should not be required to pay for decisions others took?" Hence, there remains a considerable shortfall between the aggregate political responsibility of the current generation and the responsibility

^{48.} This is known as the "Intangible Drilling and Completion Costs" tax deduction. 26 U.S Code \$263(c).

^{49.} Thanks to an Associate Editor from this journal for raising this objection.

^{50.} Caney raises and rejects this response to national responsibility for climate change. Caney, "Environmental Degradation, Reparations," 470.

^{51.} Caney, "Cosmopolitan Justice, Responsibility."

of the nation for the impacts of climate change. Given the extent of this shortfall, an account of national responsibility that aggregates political responsibility will be susceptible to the FO.

In response, it may be argued that current generations are not only responsible for the high-emitting decisions that they participate in during their lifetime, but they are also responsible for maintaining and failing to undo high-emitting policies that were put in place by their predecessors. ⁵² After all, current citizens influence many ongoing unjust policies and decisions, including the ability to protest against existing policy and the maintenance of high-emitting practices and infrastructure. ⁵³ This suggests that current citizens can be held responsible for decisions made in the past. If this argument goes through, the shortfall between the nation's responsibility and the current members' political responsibility may be small, consisting of damage done by GHGs emitted before the current generation institutes the needed changes.

Nevertheless, I argue that an account of national responsibility for climate change that relies only on aggregating individual personal or political responsibility is insufficient for several reasons. First, it is highly likely that there will be a considerable shortfall between a generation's total political responsibility and the nation's responsibility. For any given generation, the nation will have committed to climate change damage that citizens and lawmakers cannot prevent, no matter how deeply or quickly they make institutional changes. Depending on technological changes, this will only grow larger if each subsequent generation fails to take action to mitigate their emissions and as atmospheric GHG emissions concentrations increase. Understanding part of the moral failure of wealthy high-emitting nations in terms of multigenerational institutions is a way to fill this gap.⁵⁴

^{52.} Thanks to an anonymous Associate Editor for suggesting this response. Beckman develops this line of response against Caney's objection, arguing that democratic institutions are not merely "vehicles for authorization," but embody the conditions of participatory fairness. In so far as the conditions of participatory fairness are tied to past activities, current members of democracies that meet certain conditions ought to be held responsible for the decisions of the past. Beckman, "Democracy, National Responsibility, and Climate Change Iustice."

^{53.} Avia Pasternak, "The Collective Responsibility of Democratic Publics," *Canadian Journal of Philosophy* 41, no. 1 (March 2011): 99-123.

^{54.} An anonymous Associate Editor from this journal suggested a hybrid account between DCR and NCR. I am sympathetic to a hybrid view, especially since there may be a good

Second, understanding the moral failure of a nation in terms of the aggregate of its members' political responsibility is out of synch with the psychology involved in blaming nations as moral agents. ⁵⁵ Even if the nation's responsibility could be distributed perfectly to its individual members, there would be something missing if my attitude of blame was directed at a mere aggregate. It was the United States, for example, that withdrew from the Paris Agreement, and it is the United States that is to blame—regardless of the individual political actors involved. As a corporate agent, the nation stands to answer for its corporate actions—even actions that have been authored by identifiable individuals.

As a practical matter, focusing on identifying individuals to hold responsible can also distract from the purpose of correcting wrongs done by the nation. The Civil Liberties Act of 1988 paid token reparations to the Japanese Americans who were interned and the Native Alaskans who were forcibly relocated during World War II and their families. In discussing the Act, Fullinwider claims, "No one assumed that individual Americans were being held accountable." Whether or not individual decision-makers were acting wrongfully at the time, it has become clear that the program wronged its victims. The internment and relocation programs were acts of the *U.S.* government, and the Civil Liberties Act was designed to right the

reason to hold nations responsible through the political responsibility of some of their members (e.g., officials at the Environmental Protection Agency who oversee the removal of environmental protection for their own personal or political gain). The nondistributive element of this hybrid account plays a significant role. As Pettit argues:

even when all the relevant enactors in a group action have been identified and held responsible, still it may be important to hold the group agent responsible as well. The reason for this, very simply, is that it is possible to have a situation in which there is ground for holding the group agent responsible . . . but not the same ground for holding individual enactors responsible. The responsibility of enactors may leave a deficit in the accounting books, and the only possible way to guard against this may be to allow for the corporate responsibility of the group in the name of which they act.

Philip Pettit, "Responsibility Incorporated," *Ethics* 117, no. 2 (January 2007): 194. A hybrid account for the climate change problem would involve complexities I do not address in this paper, including when national responsibility ought to involve singling out and holding accountable individual political actors. This paper, does, however, present a defense of the nondistributive component, which I argue in this section is essential for an account of national climate change responsibility.

- 55. Thanks to Ben Miller for encouraging me to emphasize this response.
- 56. Fullinwider, "The Case for Reparations," 2.

United States' wrongdoing. To go in search of the particular individuals to hold politically responsible would be a distraction from the fact that the nation, as a moral agent, wronged the victims. Even if there were individuals who ought to be held accountable, it remains true that the United States wronged Japanese Americans and Native Alaskans during World War II.

Another reason aggregate political responsibility is insufficient for characterizing the moral failing of wealthy high-emitting nations is that while there may be some agents whose political responsibility stands out in need of special consideration, it is not obvious that the nation's responsibility to the victims of climate change should be distributed proportionally to citizens' political responsibility.⁵⁷ Political responsibility implies that a citizen is complicit in the injustice committed by the state, generating a horizontal obligation to the victims. Identifying the precise relations between citizens and the victims may prove difficult, opening many challenging questions about who ought to pay and how much. There may also be questions about how political responsibilities "tote up" to determine the total obligation of the state. Civic responsibility may better capture what citizens owe when their nations act unjustly because unlike political responsibility, civic responsibility does not imply complicity. Civic responsibility is the duty of each citizen to do her part in honoring the nation's obligations. As Debra Satz describes it, "We can legitimately hold people accountable to redress wrongdoing that they did not themselves commit by pointing to their responsibility as members of a society that did commit wrongdoing."58 In Section V, I combine nondistributive national responsibility for climate change with civic responsibility to respond to the FO.

I have argued that the core moral failure of wealthy high-emitting nations is institutional and cannot be sufficiently accounted for by aggregating the private or political responsibility of its citizens. In the following section, I argue that the responsibility of high-emitting nations should be understood holistically in terms of the corporate actions of the nation as a

^{57.} Debra Satz, "What Do We Owe the Global Poor?" Ethics & International Affairs 19, no. 1 (2005): 47-54; Avia Pasternak, "Sharing the Costs of Political Injustices," Politics Philosophy & Economics 10, no. 2 (May 2011): 188-210; Seel also: Michael Walzer, Just and Unjust Wars: Moral Argument with Historical Illustrations, 5th Edition (New York: Basic Books, 2015), 297.

^{58.} Satz, "What Do We Owe," 50.

whole.⁵⁹ Once national responsibility for climate change is understood nondistributively, individuals who bear the costs of repairing their nation's climate change impacts cannot be said to be held responsible for the misdeeds of others in violation of the Fairness Principle. Instead, as I argue in Section V, individuals, as citizens, are being asked to bear the burdens of underwriting their nation's costs out of civic duty.

IV. NONDISTRIBUTIVE COLLECTIVE RESPONSIBILITY

I now argue that national responsibility for climate change should be understood in terms of NCR. Using the schematic introduced in Section II, NCR can be understood in terms of a single horizontal relationship between the high-emitting nation (E) and the group of climate change victims (V), V←E. The "arrow" from E to V does not reduce to a series of horizontal relationships as it did in the case of DCR. Instead, the nation as a whole is held responsible to the victims as a group. As Fullinwider makes clear, a nation, the United States, in his example, can be considered an "individual" under law. Fullinwider argues that it is: "Precisely because [the United States] is an "individual" that does not die, it can acquire and retain debts over many generations though individuals come and go."⁶⁰

However, as mentioned in Section II, NCR arrangements are subject to such strong criticism that there is a general presumption against considering them an option for holding collectives responsible. Two criticisms of NCR have been especially popular in the climate change ethics literature. NCR arrangements are often ruled out or simply left unmentioned because they seem straightforwardly inconsistent with methodological individualism, the view that social facts ought to be explained only in terms of individual agency, and normative individualism, the view that individuals are the only object of moral concern. Even if NCR can overcome this objection, it is often argued that NCR arrangements shield individuals from responsibility. ⁶¹ My aim in this section is to defend NCR

^{59.} Because some members of a nation may bear differing levels of political responsibility for the harms of climate change, there may be a reason to support a hybrid account in which the nation is held responsible both distributively and non-distributively. On such an account, citizens would be required to bear the costs associated with holding the nation responsible that remain after the politically (or personally) responsible pay. See Note 54 above.

^{60.} Fullinwider, "The Case for Reparations," 3.

^{61.} Larry May, "Collective Responsibility," in *Encyclopedia of Ethics*, eds. L. Becker and C. Becker (New York: Routledge, 2001), 255.

against these criticisms to establish that NCR is a viable option for holding nations responsible for climate change. The next section, Section V, defends holding high-emitting nations responsible for climate change under an NCR arrangement against the objection that doing so would violate the Fairness Principle.

IV.A. The Holism Objection

One objection to NCR is that it seems to require positing an unnecessarily complex ontology containing holistic entities other than individuals. In other words, collective responsibility seems inconsistent with methodological individualism. Methodological individualism is the view that successful explanations of social arrangements must be given in terms of the motives, desires, and beliefs of individuals. Hethodological individualism is often thought to involve some form of a reduction in which a phenomenon at a higher order of explanation (the nation) can be derived from phenomena at the lower level (the citizens). DCR arrangements are reductive in this sense. In those arrangements, the nation's responsibility is derived from its members' personal responsibility—no mysterious metaphysics required. NCR seems straightforwardly incompatible with methodological individualism; it is holistic in a pejorative sense.

In response, it is not obvious that reductionism is the only game in town when it comes to explaining social phenomena without appeal to mysterious metaphysics. It is perfectly consistent to hold that society is both made up of individuals and that social facts do not reduce to individual facts. Indeed, there are many cases where social facts are true without those facts being true of every individual member of society. Social facts about particular groups can be true without being true for a majority of its individual members. For example, consider the presumptively true claim that "The Conservatives want to come across as the party that cares about the environment." This claim can be true even if most of the party members do not believe it is true. It is possible that the party held the claim at an earlier time or that a party leader espoused it. Reductionist accounts may not deliver the right answers in such cases, because the social

^{62.} Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (New York: Routledge, 2013); Debra Satz and John Ferejohn, "Rational Choice and Social Theory," *Journal of Philosophy* 91, no. 2 (February 1994): 71–87.

^{63.} Pettit and List, Group Agency, 42-58.

phenomena may not be fully explained by considering descriptions of individuals alone.

The social facts can be fully explained by facts about the individuals who determine the social facts without reducing to them and without appealing to a mysterious metaphysics. Collective actions can be explained in terms of their supervenience on individual actions. ⁶⁴ A social fact supervenes on facts about individuals when the facts about individuals determine the social facts. There are many kinds of supervenience, and it is outside the scope of this paper to thoroughly discuss them. For my purposes in defending against the Holism Objection, a general definition will do: "A property X supervenes on a property Y when it is the case that there can be no change in X without some change in Y (though not vice versa)."65 To explain, consider an illustration from science. The process of natural selection as described by evolutionary biology supervenes on the laws of physics in the sense that the laws of physics ultimately determine what is biologically possible. However, this does not mean that the science of evolutionary biology simply reduces to physics. There are phenomena to study at the level of evolutionary biology that are, in a sense, "over and above" their physical properties, i.e., the phenomena supervene on the physical properties. ⁶⁶

Similarly, the action of a nation supervenes on the actions of its members such that the collective action is determined by but not reducible to individual actions. For example, the results of a democratic election supervene on the actions of individuals. At the level of individual facts, we can describe what U.S. citizens did on the first Tuesday in November. They went to their polling places to cast votes. At the level of social facts, we can describe the election of a billionaire to the office of the President.⁶⁷

^{64.} Pettit and List defend the thesis that the group agent supervenes on its members. Pettit, "Responsibility Incorporated"; Christian List and Philip Pettit, "Group Agency and Supervenience," *The Southern Journal of Philosophy* 44, no. S1 (March 2006) 85–105; List and Pettit, *Group Agency*, 64–72. Thanks to Bill Wringe for helping me to clarify the role of supervenience in my argument.

^{65.} Satz and Ferejohn, "Rational Choice and Social Theory," 83.

^{66.} Elliot Sober, "Two Outbreaks of Lawlessness in Recent Philosophy of Biology," in *Conceptual Issues in Evolutionary Biology*, ed. Elliot Sober (Cambridge MA: MIT Press, 1984), 254–55. See Bill Wringe, "Collective Obligations: Their Existence, Their Explanatory Power, and Their Supervenience on the Obligations of Individuals," *European Journal of Philosophy* 24, no. 2 (March 2016): 472–97.

^{67.} Example adapted from Christian List and Kai Spiekermann, "Methodological Individualism and Holism in Political Science: A Reconciliation," *American Political Science Review* 107, no. 4 (November 2013): 629–43.

There could be no change in the results of the election without some change in the way that the individuals voted. At the same time, it may not be the case that the election could be explained only in terms of the actions of individuals. However, there are phenomena at the social level that can explain the outcome of the election, including observations about how voter registration laws affect voter turnout.

In my view, the Holism Objection rests on the mistaken assumption that any national responsibility arrangement that is not reductionist careens into a strange metaphysics. I have argued that it need not. Before moving on, it is important to point out that this concern about methodological individualism is frequently attached to what Posner and Weisbach describe as a "deeply held moral objection to collective responsibility." Indeed, Posner and Welsbach's discussion suggests the collectivists' deployment of strange group metaphysics leads to the subjection of the individual to the whole, as in the case of totalitarianism. This raises concerns about "normative individualism," the view that something is good only if it is good for a particular individual. In national responsibility requires abandoning normative individualism, there is a worry that the nation's obligations could trump the claims that individuals have against the state.

However, my account is consistent with normative individualism and does not imply that nations have the same moral status as individuals. I agree with Pettit and List that holding nations collectively responsible is consistent with determining what rights and obligations a group agent has entirely by appealing to those individuals affected. One may be concerned that the government could violate the claims of its citizens to public health or other benefits in order to pay compensation to the victims of climate change. This is not a necessary outcome on my view. A nation that faced such a stark choice would be justified in forgoing or postponing the payment of compensation depending entirely on the strength of the claims of the individuals involved.

^{68.} Posner and Weisbach, Climate Change Justice, 105.

^{69.} Posner and Weisbach cite H.D. Lewis, who had such concerns. H.D. Lewis, "Collective Responsibility," *Philosophy* 23, no. 84 (1948): 3–18. Posner and Weisbach, *Climate Change Justice*, 105.

^{70.} List and Pettit, *Group Agency*, 182. Thanks to an anonymous Associate Editor for pressing me to distinguish concerns of methodological and normative individualism.

^{71.} List and Pettit, Group Agency, 182.

In sum, holding nations responsible through an NCR arrangement is consistent with methodological and normative individualism. In the case of national responsibility for climate change, the climate change-related actions of the nation supervene on the actions of individuals in multiple ways. A democratic nation's actions supervene on those of its citizens in the sense that individual actors ultimately determine what nations do. Individuals vote, hold offices, create administrative rules, make decisions, carry out procedures, make treaties, and judge trials. Indeed, in concert (or discord), they determine over decades the physical infrastructure of society and whether the nation pulls out of treaties or subsidizes fossil fuels. Furthermore, holding nations responsible as a whole for their contribution to climate change does not imply that the nation has a moral status over and above that of its individual members.

IV.B. The Shielding Responsibility Objection

Even if NCR arrangements need not have untoward implications about the explanation of social facts or illiberal effects, there may be practical reasons to avoid holding nations responsible as a whole. This objection is especially important given my argument in Section III, which leaves open the possibility that individuals and private associations may not at all be innocent in their emitting activities. Holding wealthy high-emitting nations responsible as a whole may shield guilty high-emitting individuals and associations from responsibility. As Larry May puts it, "blaming the 'group' becomes a way for the individual to shield him- or herself from responsibility." A focus on the duties that institutions have to reduce damages from climate change may have the effect of shielding or even freeing individuals from responsibility. In the case of climate change, arrangements of national responsibility could have the effect of granting immunity to individuals and firms who emit wrongfully. The concern is that individual and corporate high emitters could discharge their liability for past wrongdoing through the nation."

My first response to this objection is to point out that holding nations responsible under an NCR arrangement does not preclude also holding individuals and private associations responsible. The Shielding Responsibility Objection is mistaken if it assumes that finding the nation

^{72.} May, "Collective Responsibility," 255.

^{73.} See Paul M. Hughes, "Rectification and Reparation: What Does Citizen Responsibility Require?" *Journal of Social Philosophy* 35, no. 2 (2004): 247.

responsible precludes finding its individual members responsible. Responsibility is not zero-sum.⁷⁴ The nation as a whole can be held responsible for its contribution to climate change while its members can be held responsible for theirs. Many moral failings may have contributed to creating the conditions that make it possible for individuals to participate in high-emitting activities. Holding the United States responsible does not exculpate Exxon, New York City, or millionaires with private jets.

Another issue is that holding nations responsible for climate change at the level of background institutions may effectively encourage individuals to engage in morally inappropriate activities that could damage the environment and make environmental injustices worse. As Stephen Gardiner puts it, "The better the rest of the system is at discharging responsibilities on behalf of individuals, the fewer direct demands such responsibilities make on the individual." This line of objection is familiar in the context of discussions about the implications of Rawls' institutional division of labor on citizens' duties of justice. If the division of labor places emphasis on the creation of distributively just background institutions, the individuals are let off the hook and allowed to act in ways that are unjust according to the very principles that govern the background institutions.

In response, I think that solving the problem of climate change through background institutions, including physical infrastructure, would sever the connection between many people's everyday choices and the impacts of climate change. If the institutions of the background worked to keep a nation's climate change contribution in check by implementing low- or no-emissions energy and transportation infrastructure, many of the choices individuals make would simply no longer have serious climate change implications. Finally, part of the moral failure of high-emitting nations is precisely the failure to hold emitters within their borders responsible. Were nations to owe reparations for their contribution to climate change, this could help incentivize governments to create and impose transactional rules on its high-emitting members.

^{74.} Avia Pasternak, "Cosmopolitan Justice and Criminal States," *Journal of Applied Philosophy* 36, no. 3 (June 2018): 366–74.

^{75.} Gardiner, A Perfect Moral Storm, 434.

V. A REPLY TO THE FAIRNESS OBJECTION

It is now time to return to the Fairness Objection. I have argued so far that nations ought to be held responsible for collective responsibility through an NCR arrangement: holding nations nondistributively responsible for climate change is consistent with methodological individualism and need not shield individuals or private associations from responsibility. However, holding a nation responsible for climate change under an NCR arrangement will inevitably distribute costs to its individual members. How could it be fair to require members to bear the costs of their nation's wrongdoing, which was not their fault? This seems to run afoul of the Fairness Principle: all things equal, it is unfair to hold one agent responsible for another agent's actions. Avia Pasternak puts the problem this way:

While corporate responsibility attaches in the first instance to the state itself, it is invariably the case that states pass their responsibilities on to their citizens. Consider the case of global climate change again. Imagine that industrialized states were to accept a duty to transfer funds to developing states in order to tackle climate change. The funds necessary for such compensation and mitigation schemes would most likely be taken from the pockets of the citizens of industrialized states, through higher taxes or a reduction in public goods and services. In this sense, states' corporate responsibility is distributive.⁷⁶

Pasternak assumes that so long as the costs of holding a nation responsible distributes to its citizens, national responsibility is distributive. Moellendorf also makes this assumption when he states that responsibility "devolves with the costs" of paying reparations. Assuming that a nation's climate change responsibility distributes with the costs, the FO could reemerge. National climate

^{76.} Avia Pasternak, "Limiting States' Corporate Responsibility," 361.

^{77.} Moellendorf, "Climate Change and Global Justice," 135; Moellendorf, The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy.

^{78.} Pasternak puts the problem well. However, I should point out that the FO may not emerge on Pasternak's account of distributing national responsibility. She argues that a nation is normatively justified in distributing the state's responsibility as long as its citizens "intentionally participate in the group." Citizens, then, are not being held responsible for the

responsibility under an NCR arrangement holds citizens vicariously responsible for the misdeeds of the group as a whole, which seems particularly objectionable.

I argue in this section, however, that the reemergence of the FO depends upon the problematic assumption that bearing a cost for something is taking moral responsibility for it. For NCR arrangements of certain kinds in groups of certain types it is a mistake to conflate *bearing a cost* and *being held morally responsible*. In the case of national climate change responsibility, assuming that moral responsibility devolves with the costs confuses individual moral responsibility with the civic responsibility of citizens. I argue that members should underwrite the costs of their nation's climate reparations out of a duty of citizenship. And, I consider the objection that citizens ought not to bear any costs that they are not themselves responsible for.

In NCR arrangements, moral responsibility stays at the collective level. The question of whether and how those costs should be distributed to members of the group depends in part upon the nature of the group. I argue that in highly organized groups in which the collective survives changes in membership, members can bear costs of the group—including moral debts—without being held vicariously morally responsible for them. I will call these organized groups "organizations." In such groups, individuals have obligations to bear certain costs *vis a vis* their role in the group. Following Michael Hardimon, I will call these obligations "role obligations." He writes, "A role obligation is a moral requirement, which attaches to an institutional role, whose content is fixed by the function of the role, and whose normative force flows from the role." In some groups, I argue that members have role obligations to bear the group's costs—even the costs of paying moral debts—but that the costs they incur do not implicate members in the group's moral responsibility.

misdeeds of others. Instead, they are held to their civic (associative) duties. Pasternak, "Limiting States' Corporate Responsibility." Pasternak's is one of several competing accounts of national responsibility that I think could reliably support the civic duties I defend in this paper. See also Stilz, "Collective Responsibility and the State," John M. Parrish, "Collective Responsibility and the State," International Theory 1, no. 1 (2009): 119–54.

^{79.} Some call these organizations "institutions." However, in this paper, I reserve the term "institutions" to refer to the political institutions I discussed in Section III.

^{80.} Michael O. Hardimon, "Role Obligations," *The Journal of Philosophy* 91, no. 7 (July 1994): 333.



Figure 3 Nondistributive Collective Responsibility in Organized Groups with Vertical Moral Relations

Leaving to the side important discussions about the nature of role obligations, I assume that some role obligations uncontroversially establish a vertical moral relationship between the members of the group and the group itself. Vertical moral relationships can be distinguished from the horizontal moral relations described in Section II using horizontal arrows and pertain exclusively to interpersonal interactions and transactions. In contrast, vertical moral relations can justify through their role obligations members bearing certain costs to repair the group's wrongs or to ensure that the group carries through with its obligations. Using Fullinwider's schematic again, we can draw NCR arrangements with this vertical relation, as depicted by a vertical arrow in Figure 3.

In Figure 3, Group X owes reparations to Group Y. Notice that in Figure 3, the members of X ($x_1 - x_n$) do not have a direct moral relation to Y or its members. The members of X have vertical moral relations to Y that are defined by their organizational roles. In contrast, under a DCR arrangement, individual members of X are understood to be in direct moral relation to the members of Y (see Figure 1). This is the case whether individuals are found to be personally or politically responsible for the injustice done to the victims.

Under the NCR arrangement I describe in Figure 3, xs relate only indirectly and nonhorizontally to the members of Y through their role obligations. In some NCR arrangements, the vertical relationships between the member and the group can justify transmitting costs incurred by the group on to members. Indeed, I will argue below that citizens of highemitting nations are in a vertical moral relationship with their nation in the form of a duty to underwrite the costs their nations incur. Before I get to that, I illustrate the relevance of these vertical relations, by considering

a contrast case. ⁸² In the first case, all moral relationships involved are horizontal, governed by entirely interpersonal rules. In the second case, some of the moral relationships involved are vertical, defining the duties individuals have within the organization in terms of their organizational role. ⁸³

Strangers on a Train. Imagine a group of people riding together in the same train car. The passengers are governed by interpersonal moral norms and the rules of the train. All things equal, members of the group do not have obligations concerning the group as a whole. Imagine that Jesse James robs the train car. Individually none of the train passengers could take James on. However, as a group, had they collaborated, they could have easily overcome him. The group failed to do so. Given that each individual is not responsible for the robbery (or defending against it) and that no member of the group had a special duty to take a stand (i.e., no one was a U.S. Marshall), it seems highly unfair to hold any one of them responsible for their collective failure. When all relations are horizontal, NCR arrangements appear to be highly unfair. Such arrangements would require holding individual members of a group responsible for "actions" of a circumstantial and loosely held together group.

A U.S. Philosophy Department. For the second case, consider a U.S. Philosophy Department. Imagine that a year ago, the department debated whether to pass a student on her comprehensive exams. The faculty's debates over passing the student depended on whether the department could commit to supervising the student's dissertation. When two members agreed to supervise the student's dissertation, the department passed the student. However, over the past year, both would-be supervisors left the department. With no members willing to supervise the student, the department reneged its promise to supervise the student's

^{82.} The contrast case is adopted from Feinberg, "Collective Responsibility."

^{83.} My aim in using this contrast case is not to definitively argue that unstructured groups could not be held responsible. Rather, I aim to simply illustrate that the vertical relationships introduced in the case of the faculty, the organizational case, can dispel the criticism that it is unfair for individuals to bear the costs of their group's responsibility. I argue only that vertical relationships between individuals and their group are sufficient for fairly distributing the costs of NCR. For arguments about the responsibility of unstructured groups, see Bill Wringe, "Global Obligations, Collective Capacities, and 'Ought Implies Can,'" *Philosophical Studies* 177, no. 6 (March 2019): 1523–38; Elizabeth Cripps, "Climate Change, Collective Harm and Legitimate Coercion," *Critical Review of International Social and Political Philosophy* 14, no. 2 (2011): 142.; Elizabeth Cripps, *Climate Change and the Moral Agent: Individiual Duties in an Interdependent World (Oxford: Oxford University Press, 2013)*.



Figure 4 National Responsibility for Climate Change as Nondistributive Collective Responsibility with Civic Responsibility

dissertation. Feinberg rightly argues that the department is responsible in a nondistributive sense for breaking its promise. The reason, Feinberg argues, is that each faculty member has a professional responsibility to honor the promises made on behalf of the department regardless of whether *she* was the one who *personally* made the promise.⁸⁴

One way of understanding the difference between the train car and the philosophy department is to note that the philosophy department is an organization, and the people in the train car are a mere group. Members of the organization have role obligations defined by their function within the organization. In the case of the faculty member, the duty to take on the graduate student falls to the faculty member as a faculty member. While it contains interpersonal components between the faculty member and their graduate student, this duty is also a vertical relation between the professor, the department, the university, and the broader profession. There is no unfairness in holding a professor responsible to the graduate student out of his role obligation to underwrite the duties of his academic department even if she was not the one to make the initial promise.

The contrast between the academic department and the train car passengers is intended to show that the distribution of costs in NCR arrangements from the group level to the individual level is not necessarily unfair. Whether it is fair for an individual to bear the costs associated with a group activity will depend in part upon whether or not the individual in question has obligations defined by their membership in the group. This is to say that in organizations the group's moral responsibility does not devolve with the costs transmitted to its members. Instead, the member's responsibility is defined in advance by her role in the group, and the costs are transmitted accordingly.

I argue that in the case of national responsibility for climate change, the citizen is more like the faculty member than the train passenger insofar as the citizen is bound by a role obligation, the obligation to underwrite the necessary expenses of the state. I argue that when citizens pay taxes and bear other costs in order to underwrite their nation's reparations payments, they do so in their capacity as citizens. The obligation to bear these costs is a vertical moral relationship between citizens and their state. In the following schematic (Figure 4), I emphasize the specifically civic duties, by using "C" to denote the individual members of the highemitting country, E.⁸⁵

The vertical line between C and E indicates the civic roles that citizens play when paying taxes and bearing other costs. Importantly, there is no direct and horizontal relation between any citizen and the victims of climate change (V).86 Rather, each citizen has an obligation to underwrite the expenses of their nation and are only indirectly related to the victims of climate change to whom their nation owes reparations. Representing this civic role as a vertical relationship rather than a horizontal one indicates that it is not as private individuals that citizens underwrite the expenses of their nation, but as citizens. The moral relation between citizens and victims is indirect and vertical-not horizontal. On this arrangement, the fault does not devolve with the costs. Instead, the fault stays at the level of the nation. That the costs for national wrongdoing fall to citizens "reflects their civic roles and not anything about their persons."87 Hence, even though the wealthy high-emitting nation is held responsible to the victims of its climate change impacts and even though citizens bear the costs of those impacts, there is no violation of the Fairness Principle. Citizens bear costs not because they are being held responsible for the state's actions, but because they have civic duties to underwrite the expenses of their nation.

So long as there is a civic duty to underwrite the expenses of one's nation and so long as payment of reparations for climate change is a legitimate expense, citizens are not being held responsible for the misdeeds of another agent when they bear the related costs. Similarly, a citizen does

^{85.} Fullinwider, "The Case for Reparations," 3.

^{86.} If one endorses the hybrid account discussed in Section III.2 above, horizontal relations based on citizens' moral complicity in abetting the creation and maintenance of highemitting institutions could be added to this depiction.

^{87.} Fullinwider, "The Case for Reparations," 4.

not pay extra taxes or forgo public goods to fund the expenses of the state because she has *personally* done wrong, voted a certain way, or failed to show up for the protest. She pays because she is a citizen; because she is a member of a political community that has committed a wrong. Her obligation to pay is an entirely vertical moral relation to her state. Hence, she is not being held responsible for the wrongdoing of another. Rather, she is accountable to her nation. The Fairness Principle is not violated.

My strategy of endorsing NCR combined with vertical moral relations succeeds in responding to the FO because I have shown that no agent is being held morally responsible for another agent. However, it may still be the case that something about the relationship between citizens and the state makes it so that the payment of climate change reparations is not a legitimate state expense. This is not a question that I have attempted to answer in this paper.88 However, I do take myself to have shown that if national responsibility is understood as an NCR arrangement, the violation of the Fairness Principle cannot be given as a reason for the illegitimacy of a nation's payment of climate change reparations. Once national responsibility for climate change is understood in terms of NCR, and it is assumed that the reparative costs are a legitimate state expense, then the costs distributed to citizens to fund the payment of their nation's moral debts is no different from the costs distributed to citizens in the name of paying economic debts, funding national security, or providing social welfare. That is, on NCR arrangements, the nation's moral responsibility does not devolve with the costs. Rather, members of the nation bear the costs out of their responsibility as citizens.

An objector may still resist my argument by pointing out that on my view citizens "are made worse off for no fault of their own. If they are not in any way culpable, how can it be fair to make them pay in any way?" This line of response suggests a stronger version of the Fairness Principle then I have assumed. On this strong version of the principle, it is unfair to require someone to bear costs if they are not in any way culpable of

^{88.} There remains a further question about whether or not citizens ought to stand in that vertical relation to their state when it comes to *any reparative responsibilities* at all. This is a broader concern than I do not have space to consider in this essay. For arguments to the conclusion that imposing the costs of a nation's reparations payments on citizens is justified, see Parrish, "Collective Responsibility and the State"; Pasternak, "Limiting States' Corporate Responsibility"; Stilz, "Collective Responsibility and the State."

^{89.} Caney, "Environmental Degradation, Reparations," 469.

bringing them about. This principle is implausible because there are innumerable instances in which agents ought to be made worse off for no fault of their own. For one thing, someone must bear the costs of accidents, and society must have some way to allocate those costs when no one can be found to be at fault. Also, as Caney rightly points out in a later paper, the principle that "it is wrong that some bear a burden for a problem that is not of their doing" is implausible in the context of questions about beneficence and distributive justice in which people have a duty to bear burdens to respond to injustices that are not the result of their activities. A plausible Fairness Principle is limited in scope and prohibits sanctioning the innocent for the misdeeds of those at fault, not the general allocation of social costs.

On my nondistributive account of national responsibility, what justifies allocating the costs of national climate change responsibility to citizens is their role obligations as citizens, not their obligation directly to the wronged party. The inevitability of the distribution of "the costs" of a wealthy high-emitting nation's reparations payment to its citizens does not involve the transgression of the plausible Fairness Principle. The core moral fault rests with the nation as a corporate agent. Citizens bear the costs of paying their nation's reparations out of their duty as citizens to underwrite the expenses of their nation through taxation and other means but bear them out of civic, not moral, responsibility.

VI. CONCLUSION

In this paper, I defended national climate change responsibility against the FO. The FO holds that nations ought not to be held responsible for their total historical contribution to climate change to the extent that doing so requires holding their current members responsible for others' misdeeds. First, I argued that the FO implicitly assumes a collective responsibility arrangement in which collective responsibility is the sum of the responsibility of its members (Section II). I argued that this arrangement fails to capture the core moral failing of wealthy high-emitting nations, which is institutional. Wealthy high-emitting nations fail to enforce laws against commercial, industrial, and egregious individual emitting, and they fail to mitigate against the accumulative effects of many

individual emitting activities (Section III). In Section IV, I argued that high-emitting nations ought to be held responsible through a nondistributive arrangement.

However, even on NCR arrangements, the costs of holding the collective responsible distribute to group members. The FO reemerges because it is often assumed that moral responsibility devolves when the nation's costs transmit to its individual members. I argued in Section V that it is a mistake to think that the collective's *moral responsibility* devolves with the costs that are distributed to its members. In the case of organizations—highly organized groups that survive changes in membership—members can have obligations to bear these costs defined by their role in the group. I argued that citizens have a duty to pay taxes and bear other costs in their capacity as *citizens*.

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