Climate Justice Beyond International Burden Sharing

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Climate justice scholars have in recent years devoted considerable attention to the development and application of justice principles and frameworks to the architecture of global climate change mitigation and adaptation efforts. The resulting scholarly literature is now rife with burden-sharing or resource-sharing mitigation prescriptions that call for far more aggressive actions than are ever considered as viable policy options, along with proposals for singular or hybrid principles for assigning adaptation liability that follow sound normative analyses but have gained little traction among policymakers (Gardiner 2013; Harris 2016; Moellendorf 2014; Vanderheiden 2007). With their gaze fixed primarily upon macro-level substantive policy outcomes, scholars have paid less attention to the way that justice might be applied at other levels of analysis and operationalized through the institutions of international climate policy development and implementation.

As a result, there now exists a rich scholarly literature on how much various state parties should contribute toward mitigation efforts or in adaptation aid, but little analysis of the links between the functioning of policy development institutions like those of the United Nations Framework Convention on Climate Change (UNFCCC) or the implementation of mechanisms like REDD (Reducing Emissions from Deforestation and forest Degradation), which work toward the practical realization of climate justice. Indeed, the "justice" analysis of climate justice has been largely preoccupied with the international allocation of resources or burdens, rather than focusing upon allocations of such resources or burdens at other scales, procedures by which policies are developed and implemented, or how such resources are to governed. As a

result, the gap between what scholars have called for as a matter of climate justice and what is politically and institutionally feasible has grown, with ideal theory work on environmental justice ironically making its own prescriptions appear to be decreasingly obtainable in consequence of their widening distance from the practical political means available for bringing them about.

This feasibility gap is, of course, no objection to the important work that has been done in articulating climate justice imperatives through normative principles and analytical frameworks of political theory and philosophy. As a critical discourse, climate justice necessarily stands at some distance from that which is politically feasible, and its absence of practical manifestation need not count against its critical power. Rather, the observations above are meant to highlight the narrow purview of much of the existing climate justice literature, which has richly developed analyses of the substantive ends of international climate policy—chiefly, the protection against exacerbated inequality resulting from either climate change itself or the policy measures adopted to address it—while paying comparatively little attention to the several other justice imperatives that apply to those same problems and policy efforts. Here, I hope to expand this purview by examining how justice might apply to other scales and aspects on international climate policy, along with how the causal or conceptual links between various incarnations of climate justice might sharpen understanding of the normative bases of its several imperatives.

CLIMATE JUSTICE, CONVENTIONALLY UNDERSTOOD

Before considering other applications for justice theorizing in the context of climate politics and policy, conventional "climate justice" frameworks should be noted and briefly categorized so that comparisons and contrasts with the several new contexts for and applications of them can be made. As justice imperatives are typically formulated, drawing upon stated UNFCCC ideals, the burdens associated with climate change mitigation and adaptation should be assigned according to principles of "equity" and "the common but differentiated responsibilities and respective capabilities" of state parties to the convention, rather than being inequitably assigned or concentrated upon the victims of climate-related harm. When applied to nation-states, these principles are typically viewed as implying burden-sharing arrangements whereby those with higher past or current emissions and/or higher per capita GDP (signifying greater capability) are assigned proportionately larger shares of total decarbonization costs, or resource-sharing schemes by which they would incur similarly higher compliance costs in order to meet more equitable per capita national emissions targets (e.g., Caney 2012).

While scholars continue to debate whether climate change mitigation is best viewed as an a harm-avoidance imperative or an international burden-sharing or resource-sharing distributive problem (Caney 2014; Page 2007; Vanderheiden 2009), the range of justifiable policy outcomes that could result from any such analysis is relatively small and far outside the range of what

is currently politically feasible. Regardless of the combination of polluter-pays and beneficiary-pays principles taken to be most appropriate for informing the assignment of national targets (Page 2008), prescribed remedies would impose significantly higher mitigation costs upon developed states than they have been willing to feasibly entertain. The United States, for example, might under plausible climate justice approaches be assigned a share of total mitigation costs based on its 28 percent of cumulative greenhouse gas emissions, its 22 percent of gross world product, or its 16 percent of current emissions, but few scholars would argue for shares outside of the 15–30 percent range. Likewise, China's share of mitigation costs might follow from its 9 percent of cumulative emissions, its 12 percent of GWP, or its 29 percent of current emissions. Despite expressed concerns for development rights that would allow such states to grow their emissions to meet development goals (e.g., Baer et al. 2009), and the Kyoto protocol's Annex I "firewall" against assigning binding emissions caps to developing countries, most would identify China's fair mitigation burden as falling within the range of 5–25 percent of total mitigation costs. No plausible account of climate justice allows the two largest carbon-polluting states to avoid binding mitigation assignments altogether, as both have managed to do up to now, yet neither is likely to be brought under a binding mitigation treaty anytime soon.

While justice is categorically distinct from feasibility and need not make concessions to it, it is nonetheless striking that most scholarly contributions to climate justice debates either expressly or implicitly recommend only policy measures that currently stand little or no chance of gaining requisite political support to actually govern the distribution of burdens or resources related to climate change or its mitigation. Such an observation is not meant to impugn the value of justice theorizing in connection to active policy debates—as a critical concept, the just often challenges what is socially or politically acceptable—but rather to urge the further analysis of climate policy institutions beyond the macro-level assignment of state emissions entitlements or shares of mitigation burdens. Justice at other levels of analysis or in aspects other than those associated with resource or burden distribution might be more feasibly attained in the near term, and may also help pave the way for the realization of those climate justice imperatives that scholars have spent the most time in developing and articulating.

Consider, for example, the allocation of mitigation responsibilities *within* nation-states, rather than between them, whether to sub-national political units, collectivities not reducible to their constituent members like firms, or individuals. Popular discourse on climate justice retains a state-centric approach, focusing upon how states rather than sub-state groups or individuals might be perpetrators or victims of climate injustice or agents of climate justice. States rather than individual or other collective agents are typically assumed to play the primary role in avoiding climate injustice and bringing about climate justice, with nonstate actors largely limited to secondary roles, either as advocates for state actions or as agents whose behavior enables or frustrates remedial obligations that are borne by states rather than the individuals

or sub-state groups that compose them. Actions undertaken by agents at other levels of analysis, whether *qua* individual persons or members of sub-national communities, are often viewed through the lens of states and their historical emissions baselines, national per capita emissions, and shares of international adaptation financing. Indeed, it remains difficult to conceive of what climate justice imperatives might apply to nonstate agents without reference to the states in which they reside and in which their responsibilities for and vulnerabilities to climate change have conventionally been embedded.

Yet, sub-state actors have undertaken carbon reduction efforts in the absence of domestic policy actions, ranging from California's fledgling emissions trading system to the numerous voluntary institutional and personal carbon neutrality pledges that have filled the void left by the absence of meaningful U.S. domestic mitigation policy commitments. Justice issues can readily be identified at the level of individuals as well as sub-state organizations like universities or firms, since these actors can be differentiated by their levels of causal responsibility for climate change, their capacities to reduce their emissions, and their respective benefits from past greenhouse-polluting actions, as with burden-sharing principles at the international level. In addition, several unique justice issues arise at these smaller scales, as shall be explored further below, concerning outcomes and procedures. However, these issues have been given relatively little attention by scholars because they transpire at levels of analysis other than the international distributive politics of the UNFCCC through which imperatives of climate justice are most often articulated and best understood.

Sub-national mitigation efforts are sometimes cast as immune to the justice analyses that are applied to the assignment of state mitigation targets, to be set by different criteria. David Miller, for example, calls for a "two-stage approach" by which shares of national carbon budgets or state mitigation costs are allocated among sub-state actors after international burdens are assigned, but treats this second allocation problem as one to be addressed through procedural democratic rather than substantive justice principles. According to Miller, states "may decide to control emissions by taxing the industries that mainly produce them, or they may decide to give each individual citizen a carbon budget that limits their use of emission-generating resources to a total that they can exceed only by buying a slice of somebody else's," and they do so "according to guidelines that are agreed internally" (Miller 2008, 121). Since these different mechanisms allocate carbon access of mitigation costs among sub-state actors differently, one might expect that justice issues similar to those arising at the international level might inform the choice of mechanisms or design of domestic mitigation programs, but Miller's reference only to procedural rather than substantive criteria implies that such outcomes are immune to such analysis. By focusing on states acting in the international system under the rubric of UNFCCC governance, rather than in their domestic implementation of their mitigation commitments, climate justice scholars may miss opportunities to develop and apply principles to

efforts by other actors and at other levels of analysis, at least insofar as these cannot fit within normative frameworks designed for states.

My aim here is to shift this focus away from interstate burden distribution, and to note the other potential application of various accounts of justice in human responses to climate change, including but not limited to those which are primarily concerned with the distribution of resources or burdens. Following Frank Biermann and Aarti Gupta (2011) distinction between *input legitimacy* ("procedural characteristics of a rule-setting process") and *output legitimacy* ("acceptance of rules because of their (perceived) ability to solve problems"), one might draw a similar contrast between *input justice* (i.e., justice concerns related to the processes by which climate policy is developed or administered) and *output justice* (i.e., justice concerned with the evaluation of substantive policy outcomes or their practical effects), where distinct justice issues arise on the input side, and where outputs manifest at various scales, including among persons. Up to now, most scholarly examination of justice issues in climate change has been of one or another form of output justice, with relatively little attention paid to input justice or the examination of output justice at sub-national scales. By exploring this other dimensions of climate justice, along with their relationship to international burden-sharing or resource-sharing arrangements and their guiding principles, not only should a more complete vision of climate justice emerge, but so may also several pathways of input justice reform that might if adopted increase the feasibility of output justice demands.

CLIMATE JUSTICE AT INDIVIDUAL SCALES

Apart from noting the contributions that more inclusive participatory processes could potentially make to national mitigation targets (Bulkeley and Mol 2003), little work has been done to extend climate justice analyses to incorporate sub-national or nonstate allocation outcomes, let alone to consider the non-distributive justice issues in climate change politics. One notable exception to the state-centric focus of distributive justice analyses of climate change can be found in analysis of proposals for personal carbon allowances (or PCAs), which considers the principles by which individual carbon shares might justly be allocated or trades constrained. Hyams (2009, 249), for example, argues for allocating personal carbon allowances through a "grandmothering" approach through which each individual agent would receive allowances sufficient for achieving some level of "normal functioning," defined in terms of basic needs or capabilities. Following standard luck egalitarian premises by which those who by exceptional circumstances beyond their control require extra emissions credits in order to reach the same level of welfare as others, Hyams treats the problem of allocating carbon emissions among persons as analogous to their international distribution, following similar distributive principles across scales. Generally, PCA proposals call for the setting aside of some share of national carbon budgets for collective activities as well as industrial emissions outside of the energy and transport sectors, with the remainder allocated to

assigned personal allowances along with the stock of additional credits that persons exceeding those allowances would be required to purchase. Even if the principles guiding the international assignment of national carbon budgets differ somewhat from those guiding the internal allocation of carbon budgets among persons, the two would be guided by similar considerations, and be reconciled by the imperative to ensure that domestic rationing conforms with national targets.

Other scholars, however, reject this symmetrical treatment of climate-related burden sharing at the state and individual scales. For example, John Broome views individual mitigation duties as categorically distinct from the distributive justice concerns that animate international burden-sharing principles, contesting the nature of the ethical problem at the root of individual green-house emissions. Distinguishing between public morality that ought to guide governmental policy and the private morality that ought to guide individual actions, he applies distinct justice principles to individual emissions, rather than applying similar analyses across scales. Individual persons, Broome argues, have a "duty of justice not to harm, rather than the aim of improving the world" characteristic of justice in the public realm (2012, 14). Since the "key defining feature" of private justice duties is that they are owed to other persons that have rights against being harmed (52), the appropriate remedy involves avoiding any causal complicity in climate change rather than equitably sharing a resource or the burdens associated with maintaining a public good (Vanderheiden 2016). Broome claims that persons have a duty of justice to reduce their emissions to zero, which they can achieve through some combination of emissions reduction and carbon offsets. Key to Broome's carbon neutrality imperative is the claim that offsets can "cancel" individual culpability for climate-related harm, since "emitting a tonne of carbon dioxide and offsetting it is exactly as good as not emitting it in the first place, providing the offset is genuine" (2012, 89).

For Broome, then, the distribution of individual emissions rights need not take account of those circumstantial differences among persons upon which Hyams bases his allocation of PCAs, since the "private justice" duties relevant to personal carbon budgets require carbon neutrality of every agent. Indeed, Broome's account of justice at the individual level is not distributive at all, but is rather concerned with avoiding harm, entailing distinct climate justice analyses at sub-state scales than are used to inform the international allocation of resources or burdens. Since he does not expect states to follow similar carbon neutrality imperatives, Broome's account leaves a gap between the carbon budgets assigned to states through international climate treaty agreements, by which they may justly emit finite quantities of greenhouse gases, and those assigned to persons residing within those states, for whom any carbon footprint is unjust. Insofar as carbon footprints of other sub-state actors can be assigned to persons, whether through the consumption-based carbon accounting of firms by which persons are required to offset the emissions from the goods and services they consume or through the equitable assignment of emissions from public goods like those associated with national

defense, this gap between the demands of what Broome calls public and private justice suggests an incompatibility between the two. Moreover, it places the onus of national mitigation efforts upon individual persons, to be achieved privately through voluntary mitigation efforts rather than through binding or collective action like public policy or state investment in low-carbon energy or transportation infrastructure.

While specifying the precise principles by which carbon access should be internally rationed by states through domestic mitigation efforts is beyond the scope of this article, the need for an overall view of climate justice that can link its demands at different scales is apparent. A scheme that equitably allocated carbon among states but passed those budgets along to persons in a highly inequitable manner would be unjust, as would a scheme with an equitable allocation within this generation but which from inadequate ambition imposed excessive burdens upon future generations. Likewise, a procedure manifesting input justice that resulted in an allocation of resources or burdens characterized by output injustice would fail to embody climate justice, *tout court*. Attempts to reduce one demand of justice to another fail to acknowledge the distinct demands of the various conceptions contained within an overall vision of climate justice. Whether erroneously defining any and all procedures as just so long as they yield a substantively just allocation outcome, or any manner of implementing national carbon budgets as just so long as they conform with mitigation targets set at the international level, such reductions of outcomes to process or procedures to outcomes ignore the independent normative force of their counterpart justice conception. Certainly, one must be concerned if just procedures fail to yield substantively just outcomes, or if just outcomes at one scale undermine them at another. Where this occurs, if it does, some kind of reflective equilibrium between various justice conceptions might be used to make overall climate justice achievable, with inquiry into the demands of justice at one scale or in one aspect seeking compatibility with other scales and aspects. Climate justice, that is to say, should be scalable from micro to macro levels of analysis, and should be able to translate between inputs and outputs so that just procedures align with just outcomes.

FROM OUTPUT TO INPUT JUSTICE

Scope for the application of input justice analyses within other aspects of UNFCCC processes or institutions remains more open, since procedural dimensions of climate justice have received relatively less attention from scholars. One area in which notable commitments to greater equity have become manifest can be seen in more inclusive representation of developing country voices and interests in key aspects of the UNFCCC system and process. As David Schlosberg (2004) and Kristen Schrader-Frechette (2002) have noted, calls for environmental justice can have procedural as well as substantive or outcome-oriented dimensions, with participation rights viewed as aspects of justice that do not reduce to their effects upon outcomes. Accordingly, demands for justice

in international climate policymaking have expanded beyond claims for greater equity in assignments of mitigation and adaptation burdens into claims for more and more meaningful participation by developing country parties and (to a lesser extent) other disadvantaged groups.

Partly in response to demands for more inclusive processes, half of the Conferences of the Parties (COP) meetings have been held in developing countries, and the Intergovernmental Panel on Climate Change (IPCC) now requires each working group to be co-chaired by scientists from developed and developing countries. As Biermann and Gupta (2011, 1862) note:

> The governance structure of this network of scientists now has a quota system that rather resembles public political bodies such as the meetings of parties to the Montreal Protocol, the executive committee of the ozone fund or the Global Environment Facility, all of which are governed by North–South parity procedures. North–South quotas are also part of the decision-making of other prominent transnational organizations such as the Forest Stewardship Council, while such quotas are conspicuously missing in, for example, the Roundtable on Sustainable Palm Oil.

While Biermann and Gupta characterize this move toward greater inclusiveness with procedural dimensions of international climate policy as enhancing input legitimacy rather than advancing justice imperatives, one might plausibly describe the same in terms of justice in participation.

As the reference to legitimacy implies, the goal of procedural justice is not wholly instrumental, so its value cannot entirely reduce to the value of the substantive outcome toward which it tends. Rather, this input legitimacy captures an essential component of what it means to treat persons as equally worthy of respect and concern, which provides the basis for justice theorizing. Legitimacy may be increased within a given institution or policy decision, but the wider objective in doing so is advancing justice itself, as related to both substantive ends and procedures from which they emerge and into which they subsequently feed (Few, Brown, and Tompkins 2007). As an advisory body concerned with ascertaining and disseminating scientific facts rather than a legislative one aimed at representing interests, the IPCC need not be more representative of those affected by climate change in order to be accurate in its empirical findings, but greater inclusiveness can increase its legitimacy within the global South, and potentially also improve the reception of climate science among developing country parties to climate policy meetings. Ultimately, more inclusive processes can foster agreement on more just outcomes, by fostering the trust among parties necessary for undertaking more ambitious mitigation efforts and by promoting the mutual understanding necessary for mutually beneficial cooperative actions.

Apart from fostering more inclusive participation among COP host countries and IPCC scientists, climate justice norms can also be embedded in institutions like those administering climate and forestry policy through REDD. As a mitigation policy mechanism, the REDD program is primarily charged

with determining how forest management practices, which affect 20 percent of annual greenhouse emissions through the loss of carbon sinks as the result of deforestation and degradation (van der Werf et al. 2009), might be counted toward compliance with national emissions reduction targets or otherwise be allowed to offset emissions elsewhere. While the focus of much scholarly work on climate justice has been upon those targets themselves, the means by which states achieve their decarbonization goals ought also to be of interest to those concerned with justice. Offset schemes that don't actually reduce net emissions to the degree that they are credited as having done undermine mitigation targets, and resources transferred to developing countries through REDD offset programs that fuel corruption or are otherwise misused likewise raise obvious justice concerns. But perhaps the most salient issue in international carbon offset programs like REDD concerns their impact upon international inequality, with the changes to land tenure and transfer of control over local natural resources inherent to reforestation efforts (Bumpus and Liverman 2009). Since these impacts manifest as byproducts of compliance with international mitigation efforts rather than being included among the set of remedial obligations of states, they are typically not considered within burden-sharing analyses, despite their potential for widening global inequity. More inclusive participation within forest governance processes, which might reduce the "carbon colonialism" of carbon offset programs (Bachram 2004), might thus constitute another element of input justice that could address the potential output injustice of such mitigation efforts, while reflecting also its distinct egalitarian commitments to procedure.

Reforestation programs that displace indigenous persons from native lands so that carbon entrepreneurs can turn tree plantations into carbon credits ought also to be viewed as in conflict with climate justice imperatives (Pettit 2004), regardless of their impact upon net emissions. Taking a narrow view of forest management imperatives as including only carbon sequestration can overlook the other justice impacts of different management programs, adding to some injustices while aiming to mitigate those associated with climate change. Absent safeguards for the rights and interests of indigenous peoples and local communities residing near forestry projects, as are currently lacking within UNFCCC principles, REDD programs may exacerbate international inequality by catering solely to the environmental agenda of the global North without adequate consideration of that issuing from the global South (Rosendal and Andresen 2011). Given the threat that REDD projects pose to indigenous peoples, along with the history of neoliberal "development" in forest-dependent Latin American communities, a comprehensive commitment to climate justice would not only seek to protect the local and global environments through such projects, but would involve local stakeholders in the processes that shape REDD policy and administration as well as including safeguards designed to protect local culture, territory, and autonomy (Reed 2011).

In short, climate justice imperatives can best be embedded within UNFCCC processes and REDD policies and procedures by taking a wide rather than a narrow view of justice, looking at but beyond effects on global climate to

account for various other ways in which practices can improve or worsen the life prospects of the affected poor. Egalitarian premises about equal participation rights as well as equal resource entitlements inform both input and output justice, and are often causally as well as conceptually linked. Along with REDD, such imperatives can be embedded in other policies and institutions, working together with justice analyses of policy outcomes and their effects in order to ensure that the various dimensions of justice are effectively coordinated, rather than allowing a single justice issue to so dominate the others around it that its promotion undermines the cause of advancing justice more generally. As shall be suggested in the next section, moves toward the more effective inclusion of currently marginalized groups and interests within core policy processes can advance this aim.

INPUT JUSTICE AND INCLUSION

Other strategies for making climate policy development more inclusive also warrant a mention as advancing justice imperatives, both through the recognition of previously invisible groups in key processes but also in terms of the substantive policy outputs that more inclusive processes are likely to engender. Here, the role of nonstate actors like NGOs in giving voice to excluded peoples and interests within international climate politics shall be considered. Observers have characterized such nonstate efforts as filling policy "gaps" or "voids," or narrowing democratic "deficits" that are contingently if unfortunately associated with states, implying that such groups offer supplemental representation to that which is primarily provided by states (Norris 2011). While such a role could be cast in terms of narrowing democratic deficits, it might also be construed as providing input justice or granting recognition to previously excluded groups. In either case, inclusion serves justice imperatives directly by taking seriously the interests and perspectives of those affected by climate change but not represented by state delegates to COP meetings as well as giving voice to those holding views closest to what climate justice itself has come to entail (i.e., prevention of climate change from exacerbating existing disadvantage).

Several factors explain the emergence of nonstate sources of authority within global climate politics. As Biermann (2010, 287) notes, civil society "networks, markets, and partnerships" have developed as "a direct response to the complexities of the climate problem, which states can no longer handle without strong non-state involvement." Although he speculates that nonstate actors may be merely filling an interim need in response to "temporary inaction and negotiation stalemates in the intergovernmental system" rather than transcending that system in response to "the incapability of the modern state" in addressing complex transboundary problems like climate change, their emergence can at least partly be explained by the climate policy void left by state inaction upon and/or obstruction of adequate mitigation and adaptation measures. Particularly with regard to nonstate actors that seek to bypass state authority and create their own measures for addressing climate-related

problems, whether through developing private carbon offset schemes, technology transfer, incentives for decarbonization, or coordination of private actions or resources on behalf of mitigation or adaptation efforts, opportunity and need at least partly explain why actors that operate "beyond the state" have begun to play such roles.

Others identify more than mere substantive policy failures as explaining this trend toward greater nonstate climate governance. Kathrin Dombrowski argues that NGOs and other civil society actors have emerged as a form of immanent critique against current state-based institutions, as many climate justice groups have challenged "shortcomings in the democratic legitimacy and accountability" of the regime built around the UNFCCC, which remains controlled by powerful states and thus most responsive to their interests (2010, 397). By this account, "representation failures" within rather than policy inaction by the UNFCCC motivated the formation of groups designed to better represent the interests of those most vulnerable to climate change within international climate politics. As she notes, "the normative case for involving civil society organizations such as NGOs in intergovernmental policy deliberations rests largely on the assumption that through the participation of these private actors, the voice of a wider affected public may be brought to bear on the global decision-making processes" (401). At issue is the lack of democratic legitimacy of global institutions that are plagued by democratic deficits, from which private actors have claimed legitimacy as more representative agents better capable of narrowing such gaps. When groups or networks like the Climate Action Network (CAN) can successfully claim to better represent the interests of marginalized and subaltern groups, they are able to claim a form of democratic legitimacy that has thus far been abdicated by states. As before, need and opportunity combine in a void left by the failure of public institutions to embody the norms that are seen as appropriate to them, giving rise to private actors and forms of agency that claim to better embody the norms and fulfill the functions once reserved for states.

Democratic legitimacy inheres in institutions that adhere to democratic norms, including those of inclusion and accountability, both of which are features of representation. Robyn Eckersley describes what might be termed the *all-affected principle*, which serves as the foundation for ideals of representation and which captures the core element of democratic legitimacy as based in inclusive participation: "All those potentially affected by risks should have some meaningful opportunity to participate or otherwise be represented in the making of the policies or decisions which generate such risks" (2000, 118). Because NGOs and networks like CAN represent the interests of vulnerable peoples in global climate politics more effectively than can national governments or the UNFCCC system, such groups can invoke the normative force that the all-affected principle brings to democratic legitimacy, claiming that only they can adequately represent the vulnerable in climate politics, or at least that they can do so better than any state parties to COP sessions. Like representation more generally, the manner in which groups like CAN narrow democratic deficits or encourage more inclusive participation and

engender more deliberative action around COP processes may be instrumentally beneficial to the groups and interests brought into the policy conversation, but confers substantive benefits in terms of recognition on its own, as well.

Groups like CAN play an important role in ensuring greater accountability to a global public that is otherwise denied access to climate policy negotiations. As Thomas Princen notes of NGOs in transnational environmental politics, such groups promise greater protection of interests than is possible through state-based institutions by "linking the local to the international levels of politics" and transmitting grievances "upstream" to international institutions (1994, 33). Similarly, Jens Steffek, Claudia Kissling, and Patrizia Nanz (2008) suggest that such groups have "the potential to function as a 'transmission belt' between a global citizenry and the institutions of global governance," and Rodger Payne and Nayef Samhat (2004) note that their "participation lends voice to excluded constituencies in global politics." Common to all of these accounts is their combination of normative analysis and empirical explanation, in which it is asserted that the form of governance that has in fact emerged in recent years is one that aims to embody the norms and principles that should inform global governance, with the latter driving the former.

Dombrowski explores the core ideas behind representation of constituents by states, in the paradigmatic principle–agent relationship of accountability in politics, which she suggests may have analogues with nonstate groups like environmental NGOs. Representation, she writes, involves both *authorization*, whereby a constituency specifically transmits its needs and interests upward into the policy process through its representatives, whether public or private, as well as *accountability*, whereby they are able to hold those representatives answerable for their actions on behalf of those needs and interests. Democratic elections function as a primary source of both authorization and accountability for states, but the "challenge" of theorizing nonstate actors as surrogate forms of authority in global environmental politics is to find equivalents to state processes of authorization and accountability in the absence of state mechanisms like elections. In looking to nonstate actors as potential sources of authorization and accountability, their role in providing input and output justice—along with the causal and conceptual compatibilities and conflicts between these—prominently features in critical analysis.

Peter Newell argues that NGOs aim to increase "answerability of key actors for their actions" and "enforceability where those actors fail to deliver on their obligations," providing a measure of accountability (2008, 122). As he notes, such accountability functions "plug the many governance gaps that exist in the contemporary architecture of global environmental governance," and he finds it to be "probable and preferable that their role continues to be one of highlighting accountability deficits and advocating for them to be addressed through public regulation" (150). Likewise, Michael Mason (2008) finds NGOs to provide needed accountability in the governance of "transnational harm," which state and multinational institutions are ill-equipped to address, and Karin Bäckstrand suggests that the rise of "transnational climate

partnerships" in recent years can be viewed "as a response to the 'regulatory deficit' or 'implementation deficit' permeating multilateral regimes" (2008, 76).

How do such groups provide accountability in global environmental politics, and to what extent do such functions originate in the abdication of effective accountability or representation by states? Should nonstate actors be viewed as providing accountability only in their roles as surrogates of defective state institutions, or do they provide any unique forms of accountability that states cannot? Bäckstrand describes some of the forms of accountability that environmental NGOs and other nonstate actors have been able to provide:

> The availability, open access and transparency of both information and extensive monitoring mechanisms are important dimensions of accountability. Publicity, the media and public opinion play a crucial role since hierarchical controls between principal and agents are weak. Market accountability together with reputational accountability is important in partnership networks consisting of primarily private actors, such as corporations and civil society. Leaders of NGOs are not elected but rather appointed or self-selected. Market signals provide the base for rewards and punishments for performance by investors, shareholders and ultimately consumers. Peer accountability consists of mutual evaluations of organizations by their counterparts. (2008, 81)

Key to understanding accountability in the context of nonstate actors is the analogue between conventional state-based representation and that provided by private actors. While elections may serve as standard mechanisms for representing the interests of affected peoples, formal electoral representation is neither the only nor the most effective mechanism for political representation, particularly with regard to the interests of marginalized or subaltern groups. Bäckstrand suggests several alternate accountability mechanisms that are uniquely provided by NGOs, and which at least supplement and in some cases may supersede electoral accountability in climate politics. In doing so, she links the procedural considerations for equality of interests or voice with those substantive outcomes that such mechanisms can help to provide, while showing how inattention to input justice can frustrate efforts to achieve output justice.

CONCLUSION: BRING INPUT AND OUTPUT CLIMATE JUSTICE TOGETHER

Taken together, these efforts to broaden the conception of justice that is used to inform and evaluate human responses to climate change suggest a multidimensional normative criterion that manifests, as Schlosberg (2004) suggests, not only in terms of distribution but also in those of recognition and participation. More broadly inclusive processes and institutions, especially when made sensitive to a wider array of justice issues toward which they are directed to respond, can more effectively capture the full range of "climate justice"

concerns than can approaches that are more narrowly focused on the distribution among states of either burdens or resources. By exploring the causal and conceptual links between input and output justice, and through a wide view of justice by which conflicts between the two may be addressed and demands of both can be more effectively reconciled, reform efforts by which more inclusive participation in climate governance might improve the realization of more substantively just outcomes.

As scholars continue to explore avenues through which justice theory can constructively be applied to the design and evaluation of climate change mitigation and adaptation efforts, attention to such overlooked dimensions of climate justice may be warranted, even if only to begin with more modest ambitions of how the status quo can be moved in the direction of becoming more just than has been on display thus far. Insofar as justice is the larger goal toward which climate justice is oriented, and justice is rooted in fundamental commitments to equality in dimensions beyond exposure to hazards and access to resources, theorizing its application in some of the ways identified above may help to integrate the multiple challenges to which efforts to promote it in the world must simultaneously respond.

Here, I have attempted to consider the norms of global environmental justice not only as they might be abstractly constructed and applied to the design or evaluation of macro-level climate change mitigation and adaptation efforts, but also as they might apply at other levels of analysis or be concretely embedded in the institutions through which humans currently are or in the future may be responding to climate change. In examining institutional design questions such as the representation of various interests and procedures for approving initiatives, setting goals, and making policy, I hoped to highlight the practical purchase that climate justice theorizing can have for smaller scale but highly practical issues in the human response to climate change, including the institutional and procedural issues that have frustrated the realization of large-scale climate justice objectives, and in so doing to help bridge theoretical and practical studies of global environmental governance. Concern for input justice can assist in development of norms and constituencies for ensuring output justice, just as small-scale foci upon aspects of climate policy that are more amenable to revision can serve macro-level aspects that now are not.

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