

1

Democratic Governance in the Anthropocene

Equivocal, Experimental, Equitable, Empowered, Embedded

The complexity and interpenetration of the environmental problematique, the impact severity of some crucial environmental trajectories, and the unfathomable diversity of humans and human cultures combine to make governing interaction with earth's natural systems the most daunting challenge humans will ever face. The challenge is doubly daunting because of its urgency: Many of the most frightening and irreversible trends in the environment – as seen globally, regionally, and locally – are driven by deeply imbedded forces that cannot be altered, stopped, or reversed in the short term of a few years or even a few decades. Time is of the essence for beginning and accelerating the obviously needed transformations, even as knowledge about the world remains grossly inadequate to light very much of any path that global society must start down (Linnér and Wibeck 2019). The processes that must be confronted and reflexively transformed lie at the heart of modernity, notably the forces and relations of economic production, the ways that risk is managed, and the processes of knowledge generation and dissemination (Christoff and Eckersley 2013, 30; Dryzek 2014; Dryzek and Pickering 2017; Eckersley 2017). If it is ever going to be possible for humans to undertake successful environmental governance simultaneously at multiple levels as required, it must be by embracing principles and adopting rules for complex institutions that can effectively and justly exercise responsibilities for protecting the rest of nature (in all its complexity) from humans, and humans (in all their diversity) from themselves.

In the Anthropocene, environmental governance must be effective both within and across identities, while the inescapable *equivocality* of democratic governance means that discussions can never be closed; they can merely be transformed as old problems and concerns give way to new. This means that the *experimental* quality that effective environmental governance must possess cannot be a transient quality but, rather, must be a permanent feature of the landscape of democratic decision-making in which success is realized in a context of identity politics. For these

processes to take place without distortion and without posing systemic disadvantage on parties who identify as minorities, and for intergroup differences to be accommodated, substantial *equality* of access to decision-making and *equitable* allocation of fundamental capabilities are essential prerequisites. They are prerequisites that can only be ensured by institutional arrangements that provide for *empowerment* of those whose identities are otherwise ill-favored by the political and economic status quo and for the *embeddedness* of environmental decision-making in the communities of fate where people actually determine their shared life experiences. Moreover, the circumstances of the Anthropocene call for building some considerable measure of ecological rationality into the processes and structures responsible for environmental governance (Dryzek and Pickering 2019).

More than just democracy in the form of aggregation of votes, deliberative democratic practice is a prerequisite for the learning, local knowledge, and engagement required by enlightened environmental governance under the conditions associated with the concept of the Anthropocene.¹ Effective governance institutions and rules must be grounded in widely shared understandings, created by those they address, applicable equally to all, capable of learning from (and adapting to) experience, rationally grounded, and internalized by those who adopt and experience them (Baber and Bartlett 2015, 1–11). Deliberative democratic practices are especially well suited to these challenges.

The underlying premises of this claim and their conceptual history point us to the environmental governance promises of democratic deliberation (Gunderson 1995, 46) but also to the very real perils of deliberation – both as a form of politics generally and as a strategy for environmental protection. Both conceptually and in practical experimentation, deliberative environmental democracy has evolved significantly in recent decades, yet further progress is urgently needed in our understanding of this marriage of democratic theory and real-world, global-to-local problem-solving in a world that is getting smaller while some political and social distances increase (Baber and Bartlett 2005, 2009a, 2015; Dryzek 2017a; Dryzek and Pickering 2017).

1.1 Promise

The environmental promise of deliberative democracy was born, and continues to be borne, by the realization that under purely aggregative mechanisms of democracy, environmentalists do their cause little favor when they frame it in moral or ethical rather than political terms (Gunderson 1995). The moral insight that “we are all in this together” is obviously a valid one and certainly implies a level of mutual environmental obligation (Feinberg and Willer 2013). But nothing

about that obligation suggests that nominally democratic forms of interest aggregation (polling, referenda, representative elections) either capture its normative content or identify its most appropriate institutional form. Deliberative environmental democracy, however, is more promising in several specific ways.

First, as a general matter, deliberative democracy is thought to have both an inclusive and rationalizing influence on environmental politics. Its open and participatory character promises a form of knowledge mobilization that is potentially inclusive of all knowledge systems and, through reciprocal dialogue, allows for the negotiation of knowledge quality in terms of credibility, salience, and legitimacy (Baber and Bartlett 2005; Bremer 2013; Curato et al. 2017). Even though the most diverse deliberative body is unlikely to contain within its participant group the entire range of potentially meaningful discourses regarding any given environmental issue, the presence within a deliberative body of a variety of individuals provides a far wider conduit for the complexities of the real world to influence policy outcomes than can any form of elite decision-making (Baber and Bartlett 2015; Dryzek and Pickering 2017). A poster child for this promise is the prevalence of deliberative partnerships in the area of watershed management (Baber 2010; Hardy and Koontz 2009; Leach and Pelky 2001; Lubell et al. 2002). In this context, deliberative democracy's potential for giving voice to historically neglected populations has been commented on in particular (Cronin and Ostergren 2007; Curato et al. 2017). This aspect of deliberative democracy's promise is centrally related to the fact that it conceives of political representation in discursive terms rather than as a matter of demographics, interest groups, or ideology (Dryzek 2017a; Dryzek and Niemeyer 2008).

Second, deliberative environmental democracy offers an opportunity for environmental decisions to profit from the uptake of local knowledge. Especially in the international context (Baber and Bartlett 2009a; Dryzek 2017b), it is vitally important that centrally adopted policies reflect the understandings of the people living in the ecosystems that those policies are intended to protect. In the area of climate adaptation, for example, local communities are likely to be uniquely valuable sources of information regarding issues such as land and water management, physical infrastructure, livelihood strategies, and social institutions (Lebel 2013). This insight about the capacity of deliberative environmental democracy to provide for a decentered form of policy-making has been deployed in the rangelands of Arizona (Arnold and Fernandez-Gimenez 2007), the mangrove forests of Brazil (Glaser and Oliveira 2004), the plains of Kenya (Mburu and Birner 2007), the coastal zones of the Asia-Pacific (Lebel 2013), and the global climate arena (Bäckstrand 2011). Moreover, this form of deliberative environmental democracy is potentially self-reinforcing, because decentered democracy is strengthened when multiple linkages are created to connect local

forms across time and space (Curato et al. 2017; Hayward 2008). The decenteredness of deliberative environmental democracy, which can be thought of as a second form of inclusiveness, also leads naturally to a third promise of deliberative environmental democracy – that it produces policies that are more just than those of mere aggregative democracy.

As a third potential advantage to environmental deliberation, the idea of justice carries considerable freight. For example, environmental policies are sometimes a form of normative pre-commitment, employing a deliberative procedure to specify in advance the just course for a society to take if certain environmental challenges arise. For instance, the US Endangered Species Act uses a species listing procedure to trigger a robust standard for species protection when the threat level reaches a specified threshold (Baber and Bartlett 2005).

However, frequently the question in environmental politics arises as the result of an inequitable distribution of environmental goods or harms. Whether environmental injustices arise from racism or poverty, the strongly inclusive character of deliberative environmental democracy makes it an especially welcoming form of governance for those who would seek to redress such grievances (Baber and Bartlett 2009b). Advocates for environmental justice are able to exploit the dialogic character of deliberative environmental democracy by using their “storylines” to shift the dynamics of deliberative systems and to advance their own interpretations of environmental problems and policy-making processes. Specifically, these storylines can be used to set (or reset) the agenda on environmental hazards, to construct the form of public deliberation, to change the rules of the game, to construct the normative content of public deliberation, to shape meanings related to environmental policy, and to couple or align forums, arenas, and courts across the system (Curato et al. 2017; Dodge 2014).

A fourth important promise of deliberative environmental democracy is, to put it bluntly, better environmental decisions. Elite decision-makers sometimes flatter themselves to think that they produce the best environmental decisions when they can pursue their highly sophisticated work without much interference from others. This ignores two fundamental problems. The first is that environmental policies that fail to enjoy broad-based support cannot achieve ecological sustainability because they will fail to be politically sustainable (Baber and Bartlett 2005). Perhaps more important, the underlying premise of elite environmental decision-making is mistaken. Elite decisions are, more often than not, inferior to decisions made by deliberative environmental democracy, as an example will show. Environmental politics increasingly faces human-made risks in many domains (technology, environment, energy, food, health, security, etc.) that pose new challenges of risk governance – involving as they do variables whose values are irreducibly indeterminate. The resulting conditions of uncertainty and ambiguity

impose evaluative, cognitive, and normative problems. Solving those problems requires an interplay between the state, experts, stakeholder groups, and the public at large. This environment of risk governance confronts us with a question: How can societies develop political institutions and processes for governing risk more effectively and how can members of a society be better involved in risk governance? A deliberative system (Dryzek 2017a; Parkinson and Mansbridge 2012) with a functional division of labor that assigns specific tasks to and recognizes the specific competencies of experts, stakeholder groups, and citizens can facilitate an appropriate integration of scientific and experiential substance. The integration of expertise and experience can be promoted by such a process of differentiated deliberation by experts, stakeholders, and the public, which can produce better outcomes than the classical risk analysis approach found in many regulatory systems (Klinke and Renn 2014).

Finally, deliberative environmental democracy holds the promise of environmental decisions that are more consensual and, for that reason, more legitimate. The relationship between consensus and legitimacy has long been a topic of contention within the community of deliberative democratic theorists (Baber and Bartlett 2015, 2020). Some have argued that consensus is an essential byproduct of epistemic deliberation, in cases where the issues at stake are epistemic, and that we have reason to regard a broad range of political issues as epistemic because doing so is crucial to explaining the value of deliberative contestation about political matters (Fuerstein 2014). Others have suggested that the defining objective of democratic deliberation should be “meta-consensus,” which is to say a consensus about the nature of the issue at hand and an agreement on the domain of relevant reasons or considerations (involving both beliefs and values) to be taken into account in the decision process (Niemeyer and Dryzek 2007). Still others have argued that the ideal of consensus (as agreement based on reasons that all could accept) should be abandoned in favor of a form of deliberation guided by a framework of civility that takes account of the complexity of every tradition and of every *actual* person’s views in pursuit of tenets that all believe will provide a basis for agreement (Bohman and Richardson 2009). This debate can be counted on to continue, because the concept of consensus is central to the understanding of what it means to claim that governance decisions are legitimate because they represent the consent of the governed (Moore and O’Doherty 2014, Baber and Bartlett 2015, Curato et al. 2017).

1.2 Perils

Dissents from the deliberative democracy orthodoxy are “perils” because outright rejections of this form of democratic practice are few (consisting mainly of

agonistic democrats and democracy rejectionists). Critics of deliberative democracy find it difficult to defend aggregative democracy as somehow preferable to the more deliberative forms of governance. With the growing literature on successful deliberative democracy experiences, rejectionist arguments sound increasingly like claims that bees should be aerodynamically incapable of flight. Little is lost by ignoring the rejectionist fringe because few of their substantive arguments have found their way into more measured appraisals of deliberative democracy.

Perhaps the most central peril of deliberative environmental democracy is that public deliberation can turn out to be less inclusive than it hopes and pretends to be. At the simplest and least theoretically interesting level, subgroups within the population whose views are substantively important to the issue under deliberation can be excluded in some way. This is the same problem of group representation that plagues both polling and aggregative voting, but it cuts deliberative democrats more deeply because their aspirations are higher. As an example, many have argued that political discourse generally privileges the beliefs, experiences, and speaking styles of Western, white, well-educated men at the expense of others. Moreover, by associating ideal deliberative procedure with the virtues of autonomy, self-determination, rationality, and a clear boundary between public and private life, deliberative environmental democracy has adopted a masculinist perspective (Löwbrand and Kahn 2014). Empirical research, however, suggests a more complex picture. For instance, using experimental data with many groups to investigate the links between individuals' attitudes and speech, Karparowitz, Mendelber, and Shaker (2012) find a substantial gender gap in voice and authority. But the gap disappears under circumstances of a unanimity rule and the presence of a few women participants, or under majority rule with many women participants. Deliberative designs can, therefore, avoid inequality by fitting institutional procedures to the social context of the situation. The gender inequities of which we are all aware do not present an insurmountable obstacle for deliberative environmental democracy. In fact, deliberative theory provides a procedural solution for precisely that sort of problem, a solution inherent in the realization that the point of inclusiveness in deliberative democracy is discursive rather than demographic. People are empowered, not by being in a particular room in particular numbers but by hearing their own stories told within a larger narrative.

A second form of deliberative peril has to do with the promise of integrating local knowledge into environmental decision-making. There is evidence to suggest that technical experts are prone to a particular pattern of conceptualizing the value of public knowledge. In the context of local air quality management, for example, expert understandings of the potential benefits of technological citizenship and what status they accord to lay knowledge relative to their own roles suggest a

continuing expert-deficit model of lay knowledge. Experts suspect that the public misunderstands environmental issues. Although they recognize the need for public “buy-in” to the solutions to problems such as air pollution, this does not translate into a more proactive engagement of lay knowledge in the assessment of such issues. In fact, experts seem to be personally challenged by such notions (Petts and Brooks 2006). This obvious need for a cultural shift in expert understanding of the value of lay knowledge, supported by a move away from an oversimplification of the need for (and value of) public participation, is not a product of deliberative environmental democracy. It is, rather, a reflection of preexisting attitudes that have actually been picked up and problematized by deliberation. As orthodox approaches to environmental decision-making (relying solely on ecological expertise) continue losing legitimacy, greater attention will be given to integrated and participatory approaches (which draw on multiple sources of knowledge in order to accurately describe complex socioecological processes). There is growing recognition that environmental management requires a strategy that can accommodate the multiple and often competing needs of contemporary and future stakeholders. These conceptual advances suggest a number of cognitive criteria that deliberative environmental democracy must meet, including (1) accurately understanding complex socioecological system processes, (2) focusing on “slow” variables, (3) integrating multiple scales of analysis, (4) integrating multiple stakeholder perspectives and values, (5) ensuring that future generations are fairly represented, (6) ensuring that less powerful stakeholders are fairly represented, and (7) integrating local and scientific knowledge (Whitfield, Geist, and Ioris 2011). Deliberative democracy’s critics do not argue that merely aggregative, agonistic, or participatory forms of democratic politics stand a better chance than deliberative environmental democracy of achieving this degree of embeddedness in environmental decision-making.

A third criticism of deliberative democracy claims that it does not live up to the normative standards of political equality and fairness – environmental justice – because members of socially disadvantaged groups (even though represented) are often incapable of effectively participating in deliberations. It is often suggested that deliberative democracy reproduces inequalities of gender, race, and class by privileging calm rational discussion over passionate speech and action. But this criticism ignores the considerable extent to which passionate argument is already an integral part of deliberative democracy practice (Hall 2007). For example, empirical data from a study of six citizen conferences fails to support the thesis that deliberative practices invariably replicate social inequalities (Lin 2014). Investigators used six dimensions of discursive interaction to measure deliberative inequality, including frequency and time of speech, dialogic capacity, initiating new topics, making rational arguments, and influencing conclusions. They found

that, because of procedural factors instituted to approximate the ideal situation of speech, deliberative inequalities were not significant in the deliberative dimensions of making rational arguments and influencing conclusions. Inequities in the four other dimensions of discursive interaction depended on the nature of issues under discussion. For less complex issues that had greater impacts on citizens' daily lives, most citizens showed that they possessed the "situated knowledge" needed to participate effectively in discursive interactions. Deliberative inequalities were not significant for these kinds of issues (Lin 2014). If additional studies continue to indicate that members of previously disadvantaged groups are able to participate effectively in appropriately structured deliberations, the complaint that deliberative environmental democracy will merely replicate social and economic inequities will lose much of its force. This is a question that requires significantly greater attention, however, because the environmental justice narrative is a critical element of environmental citizenship. It offers a twofold path toward transformation of environmental governance – providing both a *vocabulary* for political opportunity, mobilization, and action, as well as a policy principle that environmental decisions must not disproportionately disadvantage any particular social group (Agyeman and Evans 2006). To the extent that environmental decisions are genuinely democratic, they will prove to be sustainable only if they are also equitable.

A fourth peril facing deliberative environmental democracy is the risk that its effectiveness (and, ultimately, its legitimacy) will be undermined by elites who view deliberation not as a form of public participation but, rather, as a technique of political cooptation. For instance, in a study of the approach of the US Department of Defense (DOD) to public participation in the cleanup activity of contaminated military facilities in Fort Ord, California, Szasz and Meuser (1997) contrasted the concepts of policy design and policy implementation and related them to democratization and cooptation. They studied the implementation of cleanup activity through observation of community Restoration Advisory Board (RAB) meetings and interviews with community representatives. They found that democratization was often cited but the practice of cooptation was clearly applied. Murphree, Wright, and Ebaugh (1996) found, however, that early success at cooptation by elites can be undone. In their study of a waste-siting decision, cooptation eventually failed when local environmental activists (who had not been part of making the original decision) lost confidence in the negotiating process and accused participants of "selling out" to corporate interests and compromising the interests of the community. As a result of protests and citizen awareness campaigns, the opposition forces successfully convinced a regulatory agency to intervene. Although cooptation theory helps to explain the short-lived success of corporate cooptation during the early stages of negotiations, it must also account for the dynamics of failure in the long run. As Dryzek (2000) observed, cooptation

of dissent by elites predates the advent of deliberative democracy, and the difference democrats who are among those most concerned about the problem show no confidence that deliberation's aggregative complements or alternatives offer a better option for dealing with the problem. In fact, in the new environment of post-normal risk governance, cooptation is not a rational strategy for anyone in the long run – the resulting loss of policy effectiveness serves the interests of no one (Klinke and Renn 2014).

Finally, a criticism that could be made of deliberative environmental democracy is that it can be, in a peculiar way, too successful. The gist of this argument is that a paradox lies at the heart of deliberative democracy practice. This paradox involves a tension within deliberative democratic theory: the fact that deliberative opinion formation ideally aims to reach consensus, yet a consensus (once established) will be likely to degrade the conditions for further rational public discourse (given the limitations of human reasoning with which we are all familiar). Therefore, over time, deliberative democracy, to the extent it prizes consensus, actually risks undermining both its own theoretical justification and the quality of the decisions that it produces. Proponents of this view suggest that there are at least three cognitive and sociopsychological mechanisms by which consensus might hamper the rationality of public discourse. First, after an agreement, participants cease to develop and evaluate new arguments because none appear to be needed. Second, subscribers to a consensus tend to forget the existing arguments for it – and their limiting conditions. Third, there is a natural fear of deviating from the social norm that promotes conformism over critical reasoning (Friberg-Fernros and Schaffer 2014). To the extent that existing research has neglected to study how consensus in decision-making affects future public deliberation, the seriousness of this peril is unknown and deliberative environmental democracy remains insecure both in theory and in practice.

In order to avoid undermining its own effectiveness, consensus must be equivocal to a considerable degree. “Equivocal” is evoked deliberately here, drawing on more than one of its meanings, including being indeterminate, ambiguous, or of uncertain nature, and having a multiplicity of equally appropriate voices or significations (note that the meaning of “equivocal” is itself equivocal). This uncertainty across different meanings is normatively invaluable. To take advantage of an almost unfathomable human diversity to arrive democratically at what can only ever be tentative and contingent governance choices, amid what is and will remain a changing, ultimately unknowable, and indeterminate environment, will always require a healthy degree of equivocality. Democratic decisions must remain open-ended from a procedural point of view and open-textured substantively – allowing for the possibility that their norms can be revisited, their policy designs revised, and their requirements reinterpreted at the stage of

implementation. Equivocality, then, is a crucial norm for democratic earth system governance.²

1.3 Progress

The available evidence supports the view that the environmental promise of deliberative democracy far outweighs its attendant perils. But further progress needs to be made in our understanding of this marriage of democratic theory and real-world problem solving. After all, democracy, including deliberative democracy, can be fully adequate from a political perspective and nevertheless produce ecologically irrational results (Goodin 1992). The most ecologically sophisticated policies imaginable will prove unsustainable if they fail the test of democratic legitimacy. So deliberative democracy is a necessary, although not sufficient, element of environmental sustainability. The previous discussion suggests clearly why this is so.

Questions regarding inclusion and representation abound in deliberative democracy. The discursive character of deliberative practice suggests that what it is important to include is the narratives of all, rather than the votes of all. The point of inclusiveness is, ultimately, individual *empowerment*. Because there is no discursive-theoretic reason to weight narratives according to how many peoples' lived experiences they describe, few things could be more empowering for the individual than to say that deliberation is fully democratic to the extent that everything worth saying is said. In pursuit of that goal, it will often make sense to violate – contingently and in the context of a larger system of deliberation – many of deliberative democracy's operating rules of thumb. For instance, a diverse range of participants is thought to be vital to produce deliberative results of value. But where politically disadvantaged populations are concerned, the effective development of their narratives may require (at least preliminarily) enclave deliberation that allows participants to develop, assess, and refine their own narratives in a relatively homogenous environment before exposing them to the rigors of the market place of ideas (Karparowitz, Raphael, and Hammond 2009).

Likewise, with regard to the importance of integrating local knowledge into environmental decision-making, the last word has not been said – nor is it ever likely to be. To be deliberatively effective, knowledge (lay or expert) must be not merely local, but fully *embedded*. Recent field research suggests that the development of democratic deliberation depends more on whether participants situate and link their knowledge than whether the knowledge is local or expert in origin. This suggests that, for scholars who wish to better understand which ways of knowing enable environmental deliberation in participatory processes, a useful concept is grounded knowledge – embedded knowledge actively linked by

participants with other sources of knowledge (Ashwood et al. 2014) in ways that can help optimize the complementarity between the realms of governmental and nongovernmental environmental action (Chan and Amling 2019). This kind of embeddedness is imperfectly understood – in part because what it requires is, and is likely to always be, context specific to a considerable degree.

As with empowerment and embeddedness, the demands that *equity* places on deliberative environmental democracy also need to be explored more thoroughly. The pursuit of environmental justice introduces both problematic participants and problematic relationships to deliberative environmental democracy (Baber and Bartlett 2005). As already discussed, the use by environmental justice advocates of their own unique storylines can be an important mechanism for shaping policy meanings and for improving deliberative quality. Although these effects are tempered by discursive and material forms of power and the competition among alternative storylines (Dodge 2014), power relationships of this sort often prove to be promisingly unstable (Sovacool and Brisbois 2019). A new challenge in this regard will be to discover deliberative mechanisms for extending deliberative environmental democracy techniques to the analysis of international equity problems for which they were not originally intended (Baber and Bartlett 2009a, 2015), such as the stubborn gridlock surrounding climate politics (West 2012). Another such frontier is the development of deliberative environmental democracy principles and practices that will allow both scholars and citizens to explore problems of intergenerational justice in ways that are both more practical and defensible (Cotton 2013).

The peril posed to deliberative environmental democracy by the risk of elite cooptation suggests that additional thought needs to be given to what it means to call environmental policy effective. If environmental decision-making meets the criteria we have identified (if it is empowering, embedded, and equitable), then it would seem that its effectiveness could only be degraded if it were coopted by self-serving elites. This will strike many environmentalists as deplorably anthropocentric, and in many ways, it is. But that very accusation is growing increasingly untenable. The concept of the “Anthropocene” (Brondizio et al. 2016) suggests that no part of the natural world today is untouched by humans and, therefore, no solution to environmental problems can avoid placing humans near its center. Even this may understate the case. Humanity today is so omnipresent that the very nature of nature has been altered (Wapner 2014; Arias-Maldonado 2019). The distinction between the human and nonhuman components of nature that environmentalists have used to justify both conservationist and preservationist policies is no longer tenable. Today, there is only a distinction between the human and the much-more-than-human environments. So, in the Anthropocene, environmental protection “involves attuning ourselves to the hybrid character of

ecosystems and helping to shape them in ways in which the human voice is *deliberately* one among others fashioning soci-ecological arrangements” (Wapner 2014, 46, emphasis added; Dryzek 1995, 2017a). When one considers the advantages to be gained by enhancing the visibility of the individuals and communities affected by this expanded notion of the human/environment interface (Ward et al. 2019), it becomes clear that deliberative democracy’s historical commitment to consensus may have been too narrow rather than over-broad.

It is entirely plausible, at least theoretically, that consensus-oriented political practices will eventually fall victim to the same sort of political decay that plagues their aggregative relatives (Fukuyama 2014). Although the symptoms of political decay in these two cases might appear quite similar, the underlying causes would be very different. Huntington’s (1965) original conception of political decay was based on the insight that political and socioeconomic modernization leads to the mobilization of new social groups over time whose new demands cannot be accommodated by existing political institutions. In the case of deliberative environmental democracy, however, other factors would be at work. The danger would be that effective environmental policies would eventually have their effectiveness undermined precisely because they were *empowering, embedded, and equitable*. About this danger, at least two observations are possible. First, Huntington’s analysis suggests that our concerns about political decay should not lead us to abandon deliberative environmental democracy because none of its competitors are capable of producing institutional arrangements that are more lasting. Second, to the extent that deliberative environmental democracy does produce decisions that are genuinely consensual, the problem of political decay has been significantly simplified. If the source of political decay is not to be found in our political stars, but in ourselves, then the remedy for decay is within us as well. What may be required is a more *equivocal* understanding of consensus itself (Baber and Bartlett 2015, 2020; Dryzek and Pickering 2017).

1.4 Back to the Future (Already in Progress)

Deliberative democratic practices are well-suited to many of the challenges earth system governance will face in the future under the conditions associated with the concept of the Anthropocene, and, in particular, that part of the future that is global (Dryzek and Pickering 2019). This capacity is especially important given what we know about the core characteristics of democracy in the Anthropocene (Mert 2019). The inescapable *equivocality* of democratic environmental governance means that discussions are never closed; they are merely transformed as old problems and concerns give way to new. This means, of course, that the *experimental* quality that effective environmental governance possesses is not a

transient quality but, rather, a permanent feature of the landscape of democratic decision-making. For these processes to take place without distortion and without posing systemic disadvantage on minority parties, equal access to decision-making and *equitable* allocation of fundamental capabilities are essential prerequisites. These are prerequisites that can only be ensured by institutional arrangements that provide for the *empowerment* of those who are ill-favored by the political and economic status-quo and the *embeddedness* of environmental decision-making in the local communities of fate, where people actually determine their shared life experiences. How are these five democratic normative criteria related to the basic questions (or problems) that environmental governance poses? For a catalog of those questions, we turn to the Earth System Governance Project.

1.5 Institutionalizing Deliberative Environmental Democracy

In its first Science Plan (Biermann et al. 2009), the Earth System Governance Project identified five fundamental research problems related to effective environmental governance: *agency* (particularly agency beyond that of state actors); the *architecture* of governance (from local to global levels); *accountability* (and the various institutions that promote it); *access and allocation* (of resources and of environmental amenities and harms); and *adaptiveness* (governance systems generally).³ In an age that some scientists have called an entirely new historical epoch (the Anthropocene), this effort to describe the governance of an “earth system” offered a new paradigm for thinking about how humanity can take conscious and intentional (one might say, deliberative) responsibility for its very survival (Biermann 2014, 2016). A preliminary sketch of some of the key connections will introduce the in-depth discussions in the following chapters of the relationship between these analytical problems and the five normative democratic criteria of *empowered*, *embedded*, *experimental*, *equivocal*, and *equitable*.

1.5.1 Empowered

It is not uncommon for critics of various theories of justice to fault them as being apologies for the status quo – insofar as they construct justice from reform of existing practice and foreclose the possibility that there may be problems of injustice embedded in the very structure of capitalist social relations, private property, or the market economy (Wolff 1977; Baskin 2019). One could, for example, argue that theories suggesting that accountability mechanisms can be made fairer, more open, and more democratic if legislative oversight is supplemented (or, in some instances, even replaced) by public participation in administrative rule-making merely paper over the gross injustices of the very

mechanisms they seek to reform. Likewise, experimental approaches to the governance problem of adaptiveness can be faulted for being insufficiently revolutionary because they are always based on the assumption that existing governance solutions need only incremental improvement rather than wholesale replacement. Moreover, to advocate solutions to the problems of governance architecture that are embedded in their sociocultural milieus is to implicitly accept those institutions and traditions as givens. Of course, pairing an analysis of governance solutions to problems of allocation with an explicit linkage to the issue of access opens the analysis to the criticism of presuming that the access being discussed will lead inevitably to cooptation.

At this end of this critical litany, however, one arrives at something of a paradox. While it is not impossible for theories of justice ever to become apologies for the status quo, that is certainly a difficult criticism to maintain against the environmental justice movement. Environmental justice is a far broader (and potentially subversive) narrative than environmentalism generally. How can it be, then, that appending the potentially coopting concept of justice to an otherwise mainstream political discourse gives it the revolutionary potential that the environmental justice movement exhibits? The answer, elaborated in Chapter 3, is the normative standard of *empowerment* in its relationship to solutions to the democratic governance problem of *agency*.

At an earlier period in human history, the issue of *agency* in earth system governance could be far more easily addressed. There was a time when the earth's potential agents of governance were thought to consist entirely of that exclusive club commonly referred to as nation-states. Today, however, agents in earth system governance range from "governments to science networks, environmentalists, industry associations, faith-based organizations, farmer unions, and intergovernmental organizations, to name a few" (Biermann 2014, 47). Once the concept of the Anthropocene was invoked to describe a reality in which humanity's impact on the environment had become so pervasive that it no longer made sense to distinguish between the human and the natural, the quaint notion that institutions of national government can, by themselves, control that intimate and integral relationship became obviously untenable. The broader subject of environmental governance, therefore, has come into focus as a set of practices in which governments rely on a vast and growing network of actors stretching far beyond their own institutional boundaries – often producing effects that can usefully be thought of as *de facto* environmental governance (Gupta and Möller 2019). Environmental governance, from local to global levels, increasingly relies on private governance arrangements. Private actors, specifically corporations and civil society organizations, increasingly design, implement, and monitor rules and standards that guide and prescribe behavior in a range of policy areas, including

sustainability, banking, and international security, to name just a few. As result, the political and moral responsibility for environmental governance has become as universal as human rights – or, as universal as advocates of rights urge that they should be. The revolutionary potential of this insight is incalculable.

If, indeed, there is no corner of the natural world that is beyond human influence, then no corner of the world lies beyond the human responsibility implied by our political and moral agency. If human agency requires that an ample minimum of capabilities across a wide range of human engagements with the world is (for reasons of political right, simple justice, or normative obligation) a fundamental entitlement, then the answer to the paradox of justice as a revolutionary modifier to the environmentalist narrative becomes clear. If no element of nature (anywhere) lies outside the responsibility of some humans, and if humans become *empowered* (with adequate knowledge, autonomy, and capability) by the ascendance of a regime of environmental justice, radical critique will have become as mainstream an element of environmental governance as impact assessment.

1.5.2 *Embedded*

The architecture of environmental governance must be firmly embedded in its social and cultural milieu if it is to be effective in both political and ecological terms (Chapter 4). Embeddedness is far from irrelevant to the other basic problems of environmental governance. The necessity for accountability process and institutions to be embedded in their particular sociocultural contexts was clearly in the minds of the American founders when they secured to the various states the right to organize their participation in national elections (within fairly permissive bounds). Likewise, experimental approaches to ensuring the adaptiveness of governance institutions are assumed to be more common and more effective in states and provinces of federal systems of governance – lauded (if, perhaps, dubiously) in the American experience as “laboratories of democracy” (Tarr 2001). At a bare minimum, however, the embeddedness of governance architecture opens opportunities otherwise unavailable for empowerment through agency (Ward et al. 2019). It does this, if in no other way than by raising the level of information available to potential environmental actors and bringing the activities of environmental governance more within their immediate reach. This has the potential to allow for the problematization of inequitable allocations of environmental benefits and burdens. But the primary focus of embeddedness as a normative standard of evaluation is likely to remain, for practical reasons at least, upon governance architecture. The problem of climate governance architecture is a concrete example that shows why this is so.

A growing body of academic literature is devoted to the evaluation of rival governance architectures and policy mechanisms designed to mitigate the risks associated with global climate change. The United Nations Framework Convention on Climate Change (UNFCCC) of 1992, the Kyoto Protocol to the UNFCCC of 1997, the Copenhagen Accord of 2009, the Paris Agreement of 2015, and several other less-binding declarations have all been subjected to intense analysis in this literature. Typically, these analyses of climate governance have focused on the environmental effectiveness, economic efficiency, and global distributive consequences of alternative climate architectures and policy mechanisms. A question often overlooked in this literature has been the performance of these climate architectures (and the policies they systematize) in terms of normative ideals whose meaning and significance cannot be fully captured in terms of a goal limited to the economic-least-cost improvement of environmental quality with minimal worsening of existing global inequalities. Two such ideals are those of political legitimacy and procedural justice. One particularly important component of the emerging climate architecture, greenhouse gas emissions trading, raises significant questions of political legitimacy and procedural justice. The well-understood cost efficiency and environmental quality benefits of emissions trading schemes come at the price of imposing low levels of participation, accountability, and transparency on climate decision-making (damaging legitimacy) and producing results that, by ignoring the social complexity of carbon emissions, replicate the inequities of existing national and local economic structures (Page 2012).

This critique reminds us of something that is vitally important to our understanding of the architecture of climate governance. Often overlooked, the institutional continuum of climate governance has two ends. The focus on treaties and international agreements is the global end. But climate change governance necessarily involves a wide range of both global and local issues related to questions of environmental security. Climate change governance poses seemingly insurmountable challenges for political, economic, social, and administrative systems at all levels of governance. Before simply condemning these existing systems for their inflexibility, we should remind ourselves that they evolved to handle other sorts of problems. Climate change thus poses profound challenges to organizations of every type, requiring a wide variety of organizational responses. The drastic depth of cuts in emissions of greenhouse gasses proposed by many governments and nongovernmental organizations (NGOs) is likely to require radical shifts in sociopolitical structures, technological and economic systems, organizational forms, and modes of organizing. As a result, climate change is more than just an environmental problem requiring technical and managerial solutions. It constitutes a political space in which a variety of organizations – local and national

state agencies, private firms of all size, industry associations, NGOs, and multilateral organizations – engage in contestation as well as collaboration over evolving regimes of climate governance. There is, therefore, an urgent need to better comprehend the transformative impact of climate change on the human landscape and its policy architecture at the level where people (as both polluters and protectors of the environment) live their lives (Sarkar 2011; Chan, Ellinger, and Widerberg 2018). To achieve this, we must overcome our habit of thinking only globally. We must embed in the places that people value and where they live every day both ourselves as policy architects and the architectures we design (Meyer 2015; Schlosberg and Craven 2019).

1.5.3 Experimental

The criteria of experimentality is closely related to that of equivocality. If we believe that all voices should be heard and that all decisions should be regarded as tentative, then it is clearly reasonable to adopt an experimental attitude in efforts to institutionalize deliberative environmental democracy. This attitude is potentially useful in addressing the several earth system problems of governance. For example, if the evidence-driven character of experimental approaches to governance ever were to become the norm, efforts to hold government officials accountable might well be enhanced by the resulting availability of information regarding agency performance. Moreover, finding ever more equitable allocations of environmental resources and risks, as well as more effective architectures of environmental governance, would certainly be made easier if a large number of possible distributions could be assessed in a series of interstate or cross-national comparative trials. The advent of citizen science in support of environmental advocacy is just one data point suggesting the potential advantages of an experimental approach to environmental governance in terms of expanding opportunities for agency. But the densest web of relationships between the norm of experimentality and the challenges of institutionalization involve the problem of adaptiveness.

Unlike the relationship of apparent opposition between equivocality and accountability, the connection between experimentality and adaptiveness is more likely to provide too much of a good thing. The challenge of achieving some level of adaptiveness in global governance, particularly in environmental governance, is daunting indeed. Much of the analysis of this challenge has focused on the level of global governance where entire international regime systems reside. For example, a listing of the regimes that would have to be included in any assessment of the global challenge of climate change would inevitably include global governance of water systems, food security, health programs, and efforts to alleviate poverty.

Climate impacts on economic governance and even international security would also have to be considered (Biermann 2014). These challenges, along with many others, consume the days and complicate the lives of countless diplomats and elected officials around the world and threaten to overwhelm their already stretched cognitive capacity to achieve effective climate governance (Milkoreit 2017). But is it from this quarter that adaptiveness in global environmental governance can really be expected? Will the world's roughly two hundred national governments be able to overcome the analytical complexity that such problems entail and forge master plans that are of sufficient scope and robustness to deal adequately with the myriad implications of environmental degradation – in other words, are these problems that nations can “learn their way out of” (Gerlak et al. 2018)? Alternatively, will they allow the creation of a global government capable of doing so? Or is the solution to what ails the earth even a matter of global learning in the first place (Gerlak et al. 2019)?

To pose these questions is to fairly invite confusion (if not derision). If, however, the challenge of adaptive governance bids fair to overwhelm global institutions, perhaps the solution is closer at hand – to be found in the practice of co-production of governance knowledge (van der Hel 2016). As an example, collaborative and decentralized systems for promoting the long-term sustainability of common property resources (CPRs), in which “the appropriators themselves make all major decisions about the use of the CPR” (Ostrom 1990, 64) are not unusual, nor are they poorly understood as a theoretical matter (Baber and Bartlett 2005; Baber 2010). In fact, it is widely recognized that they offer distinct advantages over more centralized approaches that emphasize the development of uniform rules.

First, those who appropriate local CPRs over a long period of time have usually developed a relatively accurate understanding of how their particular biosphere operates because the success of their endeavors relies on it. They are also likely to have knowledge of the other locals and the norms of behavior that they would consider appropriate. Using these disaggregated, often tacit, forms of knowledge, they are more likely to craft rules that are better adapted to local CPR management than any general system of rules. Second, locals are able to devise rules that will increase the probability of trustworthy and reciprocal behavior, thus reducing the need for enforcement efforts. Because local appropriators of a CPR have to bear the costs of monitoring compliance, they are more likely to craft rules that make infractions obvious and easy to avoid. Third, and finally, a system of local and collaborative CPR rules is more likely to be regarded as legitimate (producing greater rule conformance) and less likely to prove ineffective over a wide geographic region because of the use of parallel and autonomous systems of rule-making, interpretation, and enforcement.

In other words, a structure of local and collaborative policies in pursuit of a well-understood and widely accepted general objective is likely to work better than solutions – no matter how technically sophisticated – brought to a problem from afar (Ostrom 2005, especially 279–282). So where indigenous systems for environmental management exist and work well in their particular context, the job of national and international environmental actors is simple: Resist the temptation to uncritically rely on the “authority” of rhetorical strategies employed by internationally based scientific institutions (van der Hel and Biermann 2017), learn from experiments conducted by local experts, and don’t fix what’s not broken (Patterson and Huitema 2019). The effective implementation of environmental governance norms, even those found in international agreements, will likely rely on substantial reinterpretation at the local level (Elmer, Lutz, and Schuren 2016). A more thorough exploration of these systems, and related topics, is forthcoming in Chapter 5.

1.5.4 Equivocal

If equivocality is, on balance, a positive influence on deliberative environmental democracy, what are its implications for the basic questions of governance that the Earth System Governance Project identified? If the central challenge of agency in the Anthropocene is to create a space for and legitimize the participation of nonstate actors (agents) in environmental governance, a normative attitude of equivocality would seem to be quite reasonable. The essentially open-textured quality of political discourse that an equivocal (equi-vocal) attitude suggests does not simply allow for many voices to be heard – it mandates it. Likewise, the architecture of governance stands to benefit from the pragmatism inherent in a norm that eschews absolutes and formulaic solutions in favor of bespoke designs, tailor-made for environmental problems that vary in character by location and time (Reed and Abernethy 2018). Concerns over the allocation of environmental resources, risks, and rewards might also be ameliorated to a significant degree if allocations were approached with an equivocal attitude. Issues of distributive justice are more easily attended to when distributions are thought of as tentative from the outset and the considerations supporting them are recognized as contingent (Coolsaet 2015b). The need to have governance systems that can adapt to changing external circumstances and shifting political demands cannot help but be enhanced where those systems have been developed with an awareness that alternate arrangements are within the realm of possibility and might eventually prove to be preferable. But this will require analytical models to cover more adequately a wider range of real-world adaptive responses to environmental change than they currently do (Holman et al. 2019).

If there is a fundamental problem of governance that could be thought to put equivocality in conflict with effectiveness, the need for accountability would seem to be that problem. After all, a key failing of modern liberalism (Lowi 1969) is the loss of accountability resulting from liberalism's willingness to abandon strict legislative oversight in the process of trying to serve all vocal interests equally. After all, the primary mechanism for holding administrative agencies accountable in democratic states has been the practice of legislative oversight. But the circumstances of the Anthropocene present this model with a serious paradox. Humankind's ability to disturb ecosystems in fundamental ways creates the need for effective governance responses, which must unavoidably rely on strong administrative capacities. At the same time, the forces of globalization that combine to create this ecological challenge (the internationalization of capital and weakening of the Westphalian nation-state) also conspire to make legislative oversight of administrative action difficult, if not impossible, by multiplying accountability challenges across multiple governance levels and processes (Scobie 2018).

In Chapter 6, we confront this problem by analyzing some of the emerging administrative practices of the European Union, practices that constitute a model of democratic accountability not relying on legislative oversight. Using existing administrative competencies, a deliberative model of transnational democratic accountability can build on the functions that intergovernmental organizations already perform tolerably well without relying on new legislative inputs or continuous monitoring by elected officials. Two features of democratic deliberation – its tendency to reduce moral disputes and to promote consensus – can reduce the costs of organization maintenance in stakeholder communities that offer nonlegislative alternatives for administrative oversight. By narrowing the grounds of disagreement among participants and reducing the range of possible policy outcomes with which any final decision procedure must deal, these two tendencies amount to a tacit agreement that deliberative results must be equivocal to a certain degree because participants in deliberation must always be willing to say less than they actually mean.

1.5.5 Equitable

Finally, among the general standards of normative evaluation one can apply to problems of governance, equity may well be the most broadly deployable. Almost anything involved in governing, no matter how technical in nature it may seem, can be done either more or less equitably (Biermann and Möller 2019). For example, as mechanisms of accountability, elections can be equitable insofar as their rules respect the maxim of one-person-one-vote or inequitable insofar as they

do not. The need for adaptiveness in governance can be answered with experimental policy reforms (e.g., replacing entitlement programs with block grants) that pit clientele group against one another in an endless “hunger game” that weakens the already weak. Changes in rule-making processes intended to answer questions regarding agency can either reinforce the positions of the privileged and powerful or make more room at the table for historically un- or under-represented persons. Pieces of governance architecture – environmental impact assessment, for example – can be designed to either narrow or broaden the scope of decision-making, with entirely predictable consequences for equitable concerns. But the most obvious cluster of governance problems with implications for the normative standard of equity is that related to questions of allocation (and allocation’s most basic feature, access). Indeed, the equity-related features of other governance problems we have mentioned can most usefully be thought of as intrusions of allocation into those other problem domains.

Problems of allocation (of environmental resources and risks) and access (to environmental decision-making) pose a serious challenge for environmental governance. Moreover, problems of this sort have a dual character. They are sources of human insecurity as well as aspects of the question of justice – corresponding as they do to the procedural and distributive dimensions of that concept. Critically analyzing patterns of access and allocation and how they relate to each other will illuminate and, ultimately, institutionalize the duality implicit in the idea of environmental justice. But conventional legislative, judicial, and executive tools of the liberal democratic state have so far proved inadequate to the task of identifying, much less achieving, environmental justice – and they remain almost wholly inapplicable to the many issues of justice and security that extend beyond the state. Indeed, even the basic research of the natural sciences, which many have hoped will ultimately banish equitable concerns from environmental governance, has transformative potential that is deeply political (van der Hel 2018). As often as not, it magnifies normative challenges to governance rather than reducing them.

Central as it is to present concerns, however, environmental justice and environmentalism (or environmental protection) are far from coterminous. In fact, the environmental justice discourse is actually “a set of overlapping discourses, not to be confused with the environmental justice movement, nor the ill-bounded collection of networks and organizations that comprise it” (Baber and Bartlett 2015, 71). It faces daunting burdens when confronting the challenges of environmental governance at the global level (Orsini 2016). In comparison with other discourses of environmental governance, environmental justice “integrates both social and ecological concerns more readily,” while paying particular attention to “questions of distributive justice, community empowerment, and

democratic accountability.” Moreover, environmental justice is a set of discourses that asserts that “human societies and the natural environment are intricately linked and that the health of one depends on the health of the other” (Taylor 1999, 57). Beyond these practical and philosophical differences between mainstream environmentalism and environmental justice discourses, however, there are significant political differences that mark out environmental justice as a realm of both peril and promise.

Much environmental justice activism is sustained (and sometimes even led) by economically disadvantaged women of color. These individuals are often motivated (at least in part) by underlying religious perspectives and convictions. This recurring pattern suggests that environmental justice discourses have the potential to bring together “the richly diverse discourses of ecofeminism, environmental racism, socialist-inspired critical ecology, and the more ‘spiritual’ strains of deep ecology” (Baber and Bartlett 2009a, 148), offering a new and more comprehensive challenge to liberal environmentalism and its tendencies toward elitism and cooptation. This quality of environmental justice suggests that it may be a discourse that, in comparison with other approaches to environmentalism, would be more compatible with the capabilities approach to the problem of equity (mentioned in an earlier subsection), in that it more easily attends to a wide variety of substantive freedoms and the conditions necessary to secure them. But, if it succeeds in capturing a richer and more detailed picture of the environmental problematique, does environmental justice have the capacity to deal effectively with the problems that it will have rendered even more complex than before? This question is addressed in greater detail in Chapter 7.