

8

Justice, Ecological Integrity, and Climate Change

David Schlosberg

The “restoration” of humanity—or, more directly, humanity’s adaptation to a coming world of climate change—will come only with recognition of the human place within the rest of the natural world. In line with the themes of this volume, one key element of our adaptation to a changing climate will be a rethinking of ourselves as we interact with, and relate to, the nonhuman realm. Restoring humanity entails changing how we understand and how we relate to the lives and functioning of others—from individual animals to large-scale ecosystems—with which we are embedded in the world.

Political theorists face this task as clearly as the rest of the species. As Latour (2004, 58) has argued, political theory “abruptly finds itself confronted with the obligation to *internalize* the environment that it had viewed up to now as another world.”¹ The argument here is that this type of internalization, confrontation, and restoration can be mediated through a broad conception of climate justice that encompasses not only human needs, but those of the natural world as well. A response to climate change that sees adaptation as a process of reconciling human and ecological integrity can be developed through use of the notion of capabilities. Such an approach gives us guidance for addressing two moments of adaptation: how to respond to both local and large-scale impacts on the natural world due to changes in climate; and how to adapt ourselves to fit with, and be part of, the natural world in which we function.

In this chapter, I first lay out a capabilities-based conception of justice, before examining how others have applied the approach to environmental issues. I then use the discourse of the environmental and climate justice movements to explore how capabilities are used in these movements, and are expanded to encompass a concern for communities as well as individuals. Finally, I lay out an argument for extending a capabilities-based approach to the protection of environmental systems.

M1

Capabilities and Justice

Amartya Sen and Martha Nussbaum (Sen 1985, 1999a, 1999b; Nussbaum and Sen 1992; Nussbaum 2000, 2006) have developed an approach to thinking about justice that contrasts significantly with liberal theories that focus primarily on ideal forms or justifications for the distributions of goods. Their central argument is that we should judge just arrangements not simply in terms of the distribution of goods, but more specifically by how those distributions affect the ultimate well-being and functioning of people's lives. The central question of justice, for Sen, is about "the freedoms generated by commodities, rather than on the commodities seen on their own" (1999b, 74). For Nussbaum, the capabilities approach is not about how many resources a person commands, but instead what she is actually able to do and be: "We ask not just about the resources that are sitting around, but about how those do or do not go to work, enabling [her] to function in a fully human way" (Nussbaum 2000, 71). As chapters 6 and 7 in this volume have stated, our potential for functioning and flourishing is what is ethically significant, and injustice is found in the limitation of that potential.

Key to this argument is the concept of capabilities—those elements of a life that enable human beings to function. Rather than focus on the distribution of goods, Sen and Nussbaum argue that justice entails the ability to transform those goods into the potential for a functioning life; that ability is based in the availability of the capabilities necessary for such a transformation. The main task of a capability-based theory of justice, then, is to establish what is needed to transform primary goods into the potential for a fully functioning life.

Sen and Nussbaum offer differing accounts of a capabilities approach. Sen's original focus was on rethinking official quality of life assessments in order to improve development programs; his impact is seen in the *Human Development Reports* of the United Nations Development Programme (UNDP). The point of such an account of development is to focus on the underlying conditions necessary for people to have fully functioning lives, and to allow people to choose those lives for themselves. For Sen, a capabilities approach is less about perfecting an ideal theory, and more about solving key human problems (Sen 2009).

In addition, and in deference to democratic autonomy, Sen has refused to offer a predetermined list of specific capabilities; he only emphasizes a broad list of basic individual and social liberties and freedoms: political liberties, freedom of association, economic facilities, social opportunities,

transparency guarantees, protective security, and a variety of economic and social rights (Sen 1999b). Public deliberation is the preferred method to develop more specific, contextual capability sets. As Sen argues, the “problem is not with listing important capabilities, but with insisting on one pre-determined canonical list of capabilities, chosen by theorists without any general social discussion or public reasoning. To have such a fixed list, emanating entirely from pure theory, is to deny the possibility of fruitful public participation on what should be included and why” (2005, 158). One of the necessary freedoms that people have is this opportunity to determine the capabilities necessary for functioning in their own communities. Political participation is key both as a capability in itself and as a tool for determining additional locally defined capabilities. This focus on participation and self-determination, as I will illustrate, has become a central issue in climate justice movements.

Nussbaum has rather less faith in such a democratic approach, and much more in legal and human rights frameworks; she claims the capabilities approach is “one species of human rights approach” (2006, 78). Nussbaum argues for a set of specific capabilities “as a foundation for basic political principles that should underwrite constitutional guarantees” (2000, 70–71). Focused on a conception of universal rights, Nussbaum has developed a detailed, basic “capability set” she sees as necessary for the functioning of any human life. See Holland, chapter 7, this volume, for the full list of capabilities in the set. Nussbaum argues that these capabilities, based in constitutional guarantees rather than community deliberation, would provide the social and political bases for the development of a fully functioning life (2006, 290–291).²

Either way we define the specifics of how we define capabilities, it is important to understand that the approach is not simply an alternative to other theories of justice. One of the central strengths of capabilities theory is that it can incorporate a number of issues of justice both within and, just as important, outside of the distributional paradigm. Recent arguments for the inclusion of social recognition as an element of justice, so forcefully developed by Young (1990), Fraser (1998, 2000), and Honneth (1995), can be brought under the capabilities umbrella. Nussbaum insists that the social bases of self-respect and nonhumiliation are a central capability—agreeing with theorists who argue for recognition as a central determinant of justice. Likewise, arguments for political participation and procedural justice—through public deliberation in Sen and “control over one’s environment” in Nussbaum—are also encompassed in a thorough conception of the variety of capabilities necessary

to construct a functioning life. Rather than an alternative to other theories of justice, then, we can understand a capabilities approach as more broadly encompassing many concerns of justice theorists.

One of the arguments here is that, theoretically, a capabilities approach encompasses the direction in which much of the discussion of climate justice has been moving. The approach addresses those things that are basic for human life—qualities that are necessary if we are to implement a notion of climate justice that allows for the basic functioning of human communities and the environment central to that functioning. Crucially, the capabilities approach broadens the focus of justice to include a range of issues not normally addressed in the theoretical literature on environmental justice, ecological justice, or climate justice (for an exception, see Schlosberg 2007). Many approaches to climate justice focus purely on equity (Jamieson 2001; Singer 2004), and even those that have development out of poverty as their central theme remain tied to a goods or income basis of judging justice (see EcoEquity 2008a, 2008b). Only the literature on environmental rights begins to touch on the importance of a stable climate system as central to a functioning life (Caney 2005 and 2006; Vanderheiden 2008a and 2008b). But a capabilities approach to climate justice could also address, for example, specific ways the environment supports human capabilities, the diversity of necessary environmental capabilities depending on place, the political structure of decision making on climate mitigation and adaptation, and—I argue here—the capabilities necessary for nature itself to function.

Capabilities and the Natural World

To start, I want to discuss the different ways that a capabilities approach has been applied to the natural world. Both Sen and Nussbaum have addressed the issue of nonhuman nature, and have offered different ways to incorporate this realm in a capabilities approach to justice. Sen's contribution has been more limited, but addresses the question of the environmental bases of existing capabilities. In a discussion of various circumstances under which people could have the same level of income, and yet not be equal in terms of their actual well-being, Sen notes that "variations in environmental conditions, such as climatic circumstances (temperature ranges, rainfall, flooding and so on), can influence what a person gets out of a given level of income" (1999, 70). Here, Sen wants to pay attention not just to the resources we get, but also to how envi-

ronmental circumstances can have a serious impact on our ability to construct functioning lives.

Sen has also commented on the question of the relationship between capabilities and nature with a focus on providing sustainability for future generations. Anand and Sen (2000, 2035) argue that “we can talk of sustainability only in terms of conserving a capacity to produce well-being” for people in the future. “The moral obligation underlying sustainability is an injunction to preserve the capacity for future people to be as well off as we are” (2038). Likewise, in discussing the preservation of endangered animals, Sen (2004, 1) focuses on the preservation, and possible expansion, of “the substantive freedoms of people today without compromising the ability of future generations to have similar, or more, freedoms.” Sen’s focus here is on the obligation we are under to extend capabilities that we currently have to others in both our own generation and future generations. He argues for the importance of future generations of humans to have the freedom to enjoy the same environmental benefits—from clean air to rare species—that earlier generations enjoyed.³

So Sen gives us two sets of reasons for incorporating attention to environmental conditions and systems into a conception of climate justice based on the capabilities approach. In the first, climatic variations impact what individuals are able to do with the resources that they have. If, in fact, climatic change makes it more difficult to grow food, or if climate-induced flooding uproots us from our homes, then climate change itself limits our capability to convert resources into functioning lives. It is climate change that can be seen as a barrier to that functioning, and so is a condition that is an injustice to us—or, more specifically, to those human beings that face this threat. Secondly, while we must pay attention to our obligation not to impose barriers on our contemporaries, we also have that same obligation to future generations of human beings. Any system that would limit the freedoms and capabilities of future generations, and limits the environmental possibilities for those generations, would be unjust. Any conception of a capabilities-based notion of climate justice must focus on the way that changes in the climate system, and related ecological systems, will impact the capabilities of other human beings, now and into the future.

Nussbaum’s discussion of the capabilities approach and the natural world is a bit more nuanced—and extends beyond human beings. As Keulartz and Swart (chapter 6, this volume) explore, Nussbaum (2004 and 2006) has directly addressed the application of capabilities theory to nonhuman nature, in particular to some individual animals. She breaks

crucial ground by arguing that a capabilities approach is applicable to a wide range of types of animal sentience and dignity, and of corresponding needs for the flourishing of these creatures. It is plausible, she claims, to think that our various relationships with nonhuman animals ought to be regulated by a conception of justice. Nussbaum argues that the capabilities approach “is capable of yielding norms of interspecies justice that are subtle and yet demanding, involving fundamental entitlements for creatures of different types” (2006, 327). Basically, Nussbaum’s argument is that the capabilities list developed for human populations can also be applied to sentient animals, as a way of extending justice across the species boundary. Nussbaum’s contribution here is significant and should not be understated; she offers a direct extension of the concept of justice beyond human beings alone.⁴ She adds to a literature on doing justice to nonhuman nature that focuses on what it is we share with other parts of nature, rather than the qualities that differentiate us.⁵ As valuable as it is, however, Nussbaum’s approach to nature, and so the larger issue of ecological integrity, is limited in two key ways; I will return to these critiques shortly. First, however, I wish to explore how Nussbaum’s approach can be applied specifically to climate justice.

Breena Holland and Ed Page have both suggested applications of Nussbaum’s capabilities theory to climate justice. Both suggest the development of a new, environmental capability. Page advocates the adoption of a “safe and hospitable environment as a vital ingredient of a decent life rather than a facilitator of the other functionings.” Specifically, Page suggests the adoption of the “capability to experience life in an environment devoid of dangerous environmental impacts such as those associated with climate change” (2007, 464).

For Holland (2008), however, simply *adding* a capability misses an important realization. She argues that without an accounting of the importance of functioning ecological systems, and how they enable all of the other capabilities, Nussbaum simply fails to identify what is actually necessary in order to achieve justice (Holland 2008, 6). Holland recommends a “meta-capability” that, in essence, enables all of the others. This new capability, which she labels “Sustainable Ecological Capacity,” would involve being able “*to live one’s life in the context of ecological conditions that can provide environmental resources and services that enable . . . capabilities.*” Holland offers an argument for an “environmental justice threshold”: the level at which ecological systems could sustain not only themselves, but also the other basic capabilities for human beings in the system. “As long as ecological systems have the

functional capacity to sustain the conditions enabling the minimum threshold level of Nussbaum's capabilities for each person, the *ecological* conditions of justice are met" (10). Holland explicitly links this new capability to an understanding of climate change, both in previous work (Holland 2008) and in this volume.

Both Page and Holland offer reasonable extensions of capability theory into a conception of climate justice. If the capabilities approach is about flourishing, and we all flourish in particular environments, flourishing for human beings means providing for those ecological support systems that make our functioning possible. These capabilities can be seen as the precursors of constitutional principles and protections—Nussbaum's preferred approach.⁶ And if capabilities are to be negotiable and subject to citizen deliberation, as Sen argues, then it may be the case that the level of public discourse on the impacts of climate change would justify such a new capability. Most important, in a world in which the discussion of climate change is quickly shifting from prevention and mitigation to adaptation, capabilities offer an important, implementable framework for response. In discussing adaptation, the climate justice discussion needs to incorporate recognition of the importance of survival and functioning, and to the role natural systems play in that functioning. Such a model would begin to address what exactly is needed—in terms of environmental and developmental conditions—to survive, function, and develop as human beings. The focus would be on how climate change makes our lives more vulnerable in terms of the impacts on the environmental basis of capabilities, and how a notion of climate justice can most directly address that vulnerability as we adapt to new environmental conditions.

The Public Discourse of Climate Justice Movements

As a way to ground and offer real-world support to the main point that a capabilities approach can be used to extend a notion of climate justice, it is important to note that the discourse of climate justice movements already includes and illustrates a concern with a wide range of capabilities as well as the concept of functioning.

Numerous statements of climate justice movements focus on the fact that global climate change will impact everyday life, and reduce "peoples' ability to sustain themselves" (Miller and Sisco 2002, 1). The Bali Principles of Climate Justice directly link the question of climate change to the ability of local communities to sustain their ways of life. Activists in

M1

the movement declare that the key to climate justice is protecting vulnerable communities, and what it takes for them to function. For example, the Indigenous Environmental Network is documenting in detail the impacts of climate change on traditional ways of life and indigenous communities' ability to sustain and reproduce their cultures. Activists in New Orleans after Katrina have focused on similar themes (Bullard and Wright 2009).

There are a variety of very specific capabilities that movement groups identify as central to the definition of climate justice. One clear example is the focus on community health. As the International Climate Justice Network puts it, the impacts of climate change will "threaten the health of communities around the world" (2002). The health impacts of climate change will most impact vulnerable communities. The issues include the effects of increased heat in many cities, the possible increase in severe weather events, increased diseases, decreased food security, and mental health impacts. Environmental refugees, impacted by any number of these issues, will be a further burden on community functioning—both in their home communities and those they are forced to move to.

Ecological integrity is another capability that the movement addresses. New Orleans serves as an interesting example here. Before Katrina, environmental justice organizing in Southern Louisiana focused on "cancer alley," the oil refineries and petrochemical factories that activists accused of threatening public health. In the aftermath of Hurricane Katrina there is a new awareness and understanding of how of the climatic effects of such carbon-intensive industries rebounded to threaten the very survival of the city in the form of the devastating storm, as well as how long-term neglect of the area wetlands' physical integrity made Katrina's impact even worse.

The vulnerability of indigenous nations and small island states is already central to activist notions of climate justice. The argument is not only that some are more vulnerable than others in terms of the coming impacts of climate change; it is also that this vulnerability is not recognized or respected by the larger industrialized nations. Fear of a cultural diaspora—as happened in poor African-American neighborhoods in New Orleans post-Katrina—is also a major concern. Both of these considerations embody Nussbaum's conceptions of social recognition and affiliation as central capabilities, necessary for human functioning and for justice.

Related demands for authentic and broad public participation in the development of local and global climate policy are clearly put forth in

numerous nongovernmental organization (NGO) demands for, and principles of, climate justice. All movement-based sets of principles on climate justice make clear that public and community participation should be accountable, authentic, and effective at every level of decision making.⁷ Community participation is one of the ten key principles of the Environmental Justice and Climate Change Initiative: “At all levels and in all realms, people must have a say in the decisions that affect their lives. Decision makers must include communities in the policy process” (EJCC 2002). Activists in the climate justice movement declare that the key to climate justice and the protection of vulnerable communities is the expansion of democratic participation—a direct call for participation as a key capability.

One observation is crucial here. It is clear that the major concerns of climate justice groups are not just focused on individual capabilities, but also on community capability and functioning. This is not simply a concern for what a group or community provides for individuals in that community, but is also about the functioning of communities themselves. For movement groups, environmental injustice is seen as a process that takes away the ability of individuals *and their communities* to fully function, through poor health, destruction of economic and cultural livelihoods, and general and widespread environmental threats. It is the *community* functioning that is at issue *as much as*, and *distinct from*, individual functioning. These capabilities—whether bodily health, affiliation, control over one’s environment (including political participation), a safe and hospitable environment, or sustainable environmental capacity—help not only individuals to function and flourish, but their communities as well. Many indigenous communities, for example, are impacted not only by threats to their individual capabilities, but also by events and practices that threaten their ability to reproduce cultural and spiritual underpinnings of their ways of life.⁸ Community-based arguments for climate justice address the threats to numerous capabilities at both levels, and the particular desire for the continued functioning of communities in the face of climate change. If, as Bendik-Keymer suggests in his chapter in this volume, one of the tasks we face is to focus on a “virtue in context” or social approach, rather than just an individual one, these movements for community functioning illustrate that many groups have already embraced this challenge.⁹

Overall, the point here is that a major focus of climate justice movements is on the capabilities necessary for individuals and communities to fully function. Climate justice advocates exemplify and clarify the

range of concerns central to a capabilities-based notion of justice—concerns for an environment that will support the functioning and flourishing of vulnerable human communities.

Capabilities, Climate Change, and Ecological Integrity

Building on models regarding capabilities and the natural world, as well as discourse of climate justice movements, I want to argue that it is possible to extend the capabilities approach beyond its reference to humans alone, and into a consideration of the capabilities necessary for the nonhuman natural world to function. The argument here is one that applies capabilities to nonhuman animals and ecosystems without the necessary reference to them as only human support systems. Here I wish to explore two of the issues that are problematic, and limiting, in Nussbaum's extension of the capabilities framework to the nonhuman realm. The first is Nussbaum's use of the experience of dignity as the central indicator of whether or not one deserves justice; integrity, I argue, is a much more applicable and apt indicator here. The second problem with Nussbaum's argument—but also with the capabilities approach generally as it has been applied to the natural world—is its individualist focus. Here the point is to explore a more systems- or community-based application of a capabilities approach. The broader argument is that we can take capabilities quite far in developing a framework for a much more extensive and, importantly, applicable theory of climate justice.

In justifying the extension of a theory of justice beyond human beings, Nussbaum focuses on one quality that, she argues, we share with other sentient animals—dignity. Humans and other sentient animals have lives worthy of respect, she insists, and it is an injustice if such an animal does not have the opportunity to develop, flourish, and lead a life with dignity. While Nussbaum does not directly equate human and animal dignity, she argues that “there is no respectable way to deny the equal dignity of species across species” (2006, 383). Following a capabilities approach, any life that hopes to attain such a dignified existence, argues Nussbaum, “would seem at least to include the following, adequate opportunities for nutrition and physical activity; freedom from pain, squalor, and cruelty; freedom to act in ways that are characteristic of the species. . . ; freedom from fear and opportunities for rewarding interactions with other creatures of the same species, and of different species; a chance to enjoy the light and air in tranquility” (326).¹⁰ Dignity, then, requires similar capabilities for all sentient animals—human or otherwise. It is

Nussbaum's entre into extending the concept and practice of justice beyond the human realm.

While recognizing this important and paradigm-shifting move on Nussbaum's part, dignity seems a limited and problematic concept when applied beyond the human realm. Nussbaum herself refers to the type of dignity at the heart of the human rights tradition—one that basically signals unconditional *standing*. But in more general terms, including contemporary rights arguments, the term "dignity" is primarily understood as an individual psychological state referring to one's own self-respect.¹¹ It would seem an incredibly difficult task to draw the line, from one species to the next, as to whether or not this type of dignity is an achieved quality; it also seems quite difficult to equate what we, as humans, experience as dignity with what a dog, or lion, might understand (if, indeed, it could). While Nussbaum's basis for dignity is a general notion of standing, she refers to "a life with the type of dignity relevant to that species" (2006, 351), which seems to move away from a notion of universal standing toward a more variable idea.¹²

When it comes to the nonhuman realm, a focus on integrity would be a better choice than dignity; it applies more uniformly across a greater spectrum of nonhuman nature and refers more directly to the status of beings rather than any hint of psychology. Integrity can encompass the very straightforward understanding of physical or bodily integrity in the legal sense, including the basic right against violation of the body (either by other citizens or the state). The integrity of a being is a better marker for standing—the rights-based notion of dignity Nussbaum wants to support—than is psychological dignity (how people understand "dignity" today). An affront to what we may call the dignity of an animal itself may cause no clear injury, yet a violation of bodily integrity not only immediately threatens that animal, but also its long-term potential flourishing and that of others dependent on it in a natural system. Integrity, in this sense, represents the idea of noninterruption of functioning, which is, ultimately, what Nussbaum sees as the essence of justice. This shift from dignity to integrity does not necessarily change the focus of Nussbaum's argument; all of the capabilities in her ultimate list directly apply to the integrity of a life, not just dignity. In addition, "integrity" is a term that is applicable if we are to broaden our concern from individual animals to encompass larger natural systems. This leads to the second point regarding the shortcomings in Nussbaum's approach.

Nussbaum's extension of justice only applies to (some) individual animals, and not to other entities—either individual or collective—of the

M1

natural world. This illustrates that Nussbaum is focused on animal rights rather than a broader notion of justice that can be applied to ecological and climate systems. While pioneering in her move away from the limited possibilities of utilitarian and social contract approaches to animals, Nussbaum remains tied to a very individualist conception of liberal rights, a focus that unnecessarily limits the reach of a capabilities approach into environmental considerations, where individual potential—human or nonhuman—is nested in a functioning ecosystem.

Nussbaum is concerned with the flourishing potential of individual animals, and while she recognizes the importance of habitat, she justifies the limited focus on isolated animals by insisting “damage to the species occurs through damage to individuals” (2006, 357). This ignores the integrated reality of individuals within ecosystems, where the potential to function is clearly determined by a broadly functioning ecological system in which both humans and nonhumans are embedded and dependent. While damage to individuals can indeed decimate a species (as in overfishing), more often than not the source of extinctions is a loss of habitat and ecological support systems, including the various symbiotic relationships that are the heart of ecosystems. The functioning of communities and systems is absolutely crucial to the functioning of the individuals within it. Simply put, all human and nonhuman animals need a working environment to function; this environment includes not just other individual animals, but also nonsentient life and the relationships and interactions that sustain ecosystems. As Keulartz and Swart (chapter 6, this volume) state, the point is to focus both on animals and the habitats that support their functioning—human and nonhuman alike.

Ecosystems also have integrity, and definitions of ecological integrity are quite similar to those for human bodily integrity, focusing on the natural conditions necessary for ecosystems to continue to function and evolve (cf. Pimentel, Westra, and Noss 2000). At the base of Nussbaum’s conception of justice is the Aristotelian notion of teleology—that injustice is based on interrupting the potential unfolding of the ends or purpose of a human being (or sentient animal). And yet we can also claim something like a purpose or particular type of flourishing in the way that ecosystems evolve. This is not to say that all ecosystems have a singular and universal end—ecologists are increasingly hesitant about any notion of ecosystem end-states or stability, and more open to a plurality of states and constant evolution. Like human beings, there is no single teleology for nonhumans or ecosystems, but rather a range of potential states that depend on the conditions and inputs to the individual or system. A notion

of justice with regard to ecosystems would focus on how the teleological potential of individuals and systems, human and nonhuman, is undermined or interrupted by human actions and abuses.

It is the threat to the integrity and potential functioning of a variety of ecological systems that is at the heart of a problem like climate change. This is, unfortunately, the crucial essence of being that we currently share with other parts of nature due to climate change—the vulnerability of the integrity of our individual and community bodies, human and nonhuman. Carbon dioxide and other greenhouse gas emissions threaten the potential of a whole range of teleological entities—not just individual human beings. The challenge, as laid out throughout this volume, is a conception and practice of restoration that addresses our responsibility to restore functioning to both ourselves and impacted, undermined ecosystems.

My argument here is that the capabilities approach could enrich conceptions of climate justice by bringing recognition to the functioning of natural systems, as well as the human and nonhuman individuals within it. In this approach, the central issue of climate justice is the interruption of the capabilities and functioning of living systems—what keeps those living systems from transforming primary goods into the potential functioning, integrity, and flourishing of both human and nonhuman individuals within them. If injustice comes with the interruption of the capabilities necessary to function, we need to examine those interruptions—and, so injustices—at both the individual and community/system level.

In other words, a capabilities approach could be extended beyond what Holland offers in her chapter—attention to the way that human capabilities are dependent on natural systems—to one that also focuses on the fact that those natural relationships and processes also provide the potential for the functioning of other nonhuman flora, fauna, and systems. If we remain tied to a focus on what ecological systems do only for human survival and flourishing, we do not get at the central issue of why human beings are undermining the ability of various ecological systems to function; it does not help us get past our unwillingness to recognize the integrity of ecological systems not only for what they provide for *us*, but also for the work that functioning ecosystems do for all that is *not* human as well. A capabilities-based approach to restoration can support an ethical landscape that includes, and yet expands upon, the support of human functioning alone. When we interrupt, corrupt, or defile the potential functioning of ecological support systems,

M1

we do an injustice not only to human beings, but also to all of those nonhumans that depend on the integrity of the system for their own functioning.

There is no theoretical need to limit a capabilities-based approach to climate justice to individual human beings, and there are ecological reasons for extending it to systems as well as individual animals. It is the disruption and increasing vulnerability of the integrity of ecosystems that is at the heart of the injustice of climate change, both in terms of its impact on vulnerable human communities and nonhuman nature. A systems-based approach to capabilities theory helps us to flesh out what, exactly, the moment of injustice is in this principle, that point where human beings, nonhuman animals, and natural systems are denied the capabilities necessary to function. The capabilities approach offers an opportunity to determine which necessary capabilities are being undermined or disrupted. With this tool, we can identify specific vulnerabilities, and how those vulnerabilities differ from place to place, system to system. In understanding the injustice with regard to both human beings and the nonhuman world in this way, we can then turn our focus to the social, cultural, industrial, political, and institutional processes that deny necessary capabilities and so prevent potential functioning from being realized.

Conflicts and Conclusions

All notions of climate justice bring with them potential conflicts; most of these to date have been between developed and developing nations. A focus on historical responsibility for climate change brings resistance from developed nations who do not want to consider (or pay) the costs of their past actions. Emphasizing an equitable approach, with every individual having an equal right to a certain amount of carbon emissions, faces critiques from developing nations that fear their economic future being hampered.

Clearly, implementing an idea of ecosystem-based climate justice would have its own obstacles, though of a different type.¹³ Potential conflicts are sure to come with attempts to broaden a capabilities approach to a system-wide focus with or over individuals. Conflicts could include individual human vs. human community, individual animal vs. ecosystem, individual humans vs. ecosystems, and human communities vs. ecosystems. Even with a focus solely on the functioning of human communities, there certainly could be a problem with elevating com-

munity functioning above the individual; such a view could lead to abuses of individuals and their rights.¹⁴ We can anticipate the same types of conflict erupting between protectors of individual animals vs. protectors of ecosystems. Cripps has argued that it is this range of inherent conflicts that might make a capabilities-based notion of ecological justice “doomed from the outset” (2010, 14). And yet while it is true that in ecosystems there is much more “sacrifice” of individuals for the larger stability of the system—in particular in terms of animals who become food for others—it can be argued that to be such food is a form of functioning (see Schlosberg 2007; Hailwood 2011). Ultimately, each animal—human or non—takes from the natural world in order to survive, and then returns to offer sustenance to that same world. The difficulty, of course, is finding a balance that allows us to take from our surroundings without limiting the ability of others to do the same, and without limiting the ability of the larger systems to function. Both the conflicts between human and nonhumans, and conflicts between nonhumans themselves, are part of the set of natural relationships a theory of ecological justice strives to recognize and maintain.

While the specifics of engaging such potential conflicts must be further developed, they lie beyond the confines of this chapter. The argument here is that such conflicts can be addressed in various ways consistent with a capabilities approach to justice. In response to these potential conflicts, it seems feasible that a combination of basic individual rights as championed by Nussbaum, plus the type of public deliberation that Sen defends as a basic capability, should be invoked in the public discussion of the potential conflicts between the capabilities of individuals and natural systems. A thorough form of ecological reflexivity can assist us in avoiding the subjugation or use of individuals to serve the flourishing of the larger community.¹⁵ Such an approach allows for difference in the way we define needs by locality; local participation and deliberation can help us to understand and determine the distinct and local environmental needs of various communities. Here, a capabilities-based approach, using deliberative tools, can allow for the type of participation, flexibility, and local knowledge that is crucial to understand and support both individual and systems functioning while meeting the participatory demands of both the capabilities approach and climate justice movements. Such an approach, crucially, is also an apt way of dealing with the major responses we will have to undertake as we adapt to a coming world changed by our alteration of the climate system.

M1

That is really the essence of the current challenge, and why these issues should be addressed in a political framework of justice rather than in the more general, and frankly tired, argument over the intrinsic value of animals or nature. A version of a capabilities approach, based in systems and fleshed out by ecological reflexivity, can help us adapt to climate change in a just manner. The key shift, of course, is one in line with the themes of this volume: we must adapt not only our behavior to climate change, but also our understanding of, and ongoing reflexivity about, our place in relation to the natural world in which we function and flourish.

Notes

1. Compare Thompson, chapter 10, this volume, and Vogel, chapter 15, this volume, on internalizing the environment.
2. Tellingly, the index to *Frontiers of Justice* has no listing for “democracy,” but an extensive one for “human rights.”
3. This approach closely mirrors deShalit’s (1995) argument for a version of communitarian intergenerational justice, which includes a duty to preserve the natural conditions necessary for the survival of future generations.
4. There are a number of critiques of the implications of Nussbaum’s approach; see, for example, Cripps 2010; Hailwood 2011; Ilea 2008; Schlosberg 2007, chap. 6; and Wissenburg 2011.
5. See also, for example, Baxter 2005 and Low and Gleeson 1998.
6. This suggestion for providing capabilities as legal rights would fit with the arguments of those, such as Vanderheiden (2008a, 2008b), who base climate justice in environmental rights.
7. See, for example, the 10 Principles for Just Climate Change Policies in the U.S. (Environmental Justice and Climate Change Initiative 2002) and the Bali Principles of Climate Justice (International Climate Justice Network 2002).
8. For a further explication of this argument, see Schlosberg and Carruthers 2010, which examines community functioning in indigenous environmental justice battles.
9. See Vogel, chapter 15, this volume.
10. Nussbaum feels that this insistence on animal dignity may cross a liberal line into a notion of the good, so leaves it as “a metaphysical question on which citizens may hold different positions while accepting the basic substantive claims about animal entitlement” (2006, 383). The fallback is a less sweeping idea, one nonetheless still based in the recognition of the importance of animals in an overall theory of justice.
11. See, for example, Honneth’s discussion of recognition and dignity, and Fraser’s critique of the implications of such a victim-centered approach, in

Fraser and Honneth 2003. Such a critique of individual psychological states is the basis of Fraser's (1998, 2000) argument for a status-based, rather than psychological, notion of recognition (in human communities). While Fraser does not address Nussbaum, her focus on status clearly refers to the type of universal rights-based dignity that Nussbaum aims for.

12. She roots the eighteenth-century French notion of being *digne*—of deserving standing—in an Aristotelian understanding of an animal's proper teleology when healthy.

13. The first being the alienation Vogel, chapter 15, this volume, conceptualizes.

14. For example, foot binding and genital mutilation for the sake of culture and tradition.

15. For more on such a reflexive and deliberative approach see Schlosberg 2007, especially chap. 8.

References

Anand, Sudhir, and Amartya Sen. 2000. Human Development and Economic Sustainability. *World Development* 28 (12): 2029–2049.

Baxter, Brian. 2005. *A Theory of Ecological Justice*. London: Routledge.

Bullard, Robert, and Beverly Wright, eds. 2009. *Race, Place, and Environmental Justice After Katrina*. Boulder, CO: Westview Press.

Caney, Simon. 2005. Cosmopolitan Justice, Responsibility, and Global Climate Change. *Leiden Journal of International Law* 18: 747–775.

Caney, Simon. 2006. Cosmopolitan Justice, Rights and Global Climate Change. *Canadian Journal of Law and Jurisprudence* 19 (2): 255–278.

Cripps, Elizabeth. 2010. Saving the Polar Bear, Saving the World: Can the Capabilities Approach Do Justice to Humans, Animals and Ecosystems? *Res Publica* 16 (1): 1–22.

deShalit, Avner. 1995. *Why Posterity Matters*. London: Routledge.

EcoEquity. 2008a. The Right to Develop in a Climate Constrained World: The Greenhouse Development Rights Framework. 2nd ed., executive summary. ecoequity.org/GDRs.

EcoEquity. 2008b. Greenhouse Development Rights. ecoequity.org/GDRs.

Environmental Justice and Climate Change Initiative (EJCC). 2002. 10 Principles for Just Climate Change Policies in the U.S. <http://www.ejnet.org/ej/climatejustice.pdf> (accessed March 25, 2011).

Fraser, Nancy. 1998. Social Justice in the Age of Identity Politics: Redistribution, Recognition, and Participation. In *The Tanner Lectures on Human Values*, vol. 19, ed. Grethe B. Peterson. Salt Lake City: University of Utah Press.

Fraser, Nancy. 2000. Rethinking Recognition. *New Left Review* 3 (May/June): 107–120.

- Fraser, Nancy, and Axel Honneth. 2003. *Redistribution or Recognition: A Political-Philosophical Exchange*. London: Verso.
- Jamieson, Dale. 2001. Climate Change and Global Environmental Justice. In *Changing the Atmosphere: Expert Knowledge and Environmental Governance*, ed. Clark A. Miller and Paul N. Edwards. Cambridge, MA: MIT Press.
- Hailwood, Simon. 2011. Bewildering Nussbaum: Capability Justice and Predation. *Journal of Political Philosophy* 19 (1).
- Holland, Breena. 2008. Justice and the Environment in Nussbaum's "Capabilities Approach": Why Sustainable Ecological Capacity Is a Meta-capability. *Political Research Quarterly* 61 (2): 319–332.
- Honneth, Axel. 1995. *The Struggle for Recognition: The Moral Grammar of Social Conflicts*. Cambridge, MA: MIT Press.
- Ilea, Ramona. 2008. Nussbaum's Capabilities Approach and Nonhuman Animals: Theory and Public Policy. *Journal of Social Philosophy* 39 (4): 547–563.
- International Climate Justice Network (ICJN). 2002. Bali Principles of Climate Justice. <http://www.ejnet.org/ej/bali.pdf> (accessed March 25, 2011).
- Latour, Bruno. 2004. *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, MA: Harvard University Press.
- Low, Nicholas, and Brendan Gleeson. 1998. *Justice, Society and Nature: An Exploration of Political Ecology*. London: Routledge.
- Miller, Ansjie, and Cody Sisco. 2002. "Ten Actions of Climate Justice Policies." *Second National People of Color Environmental Leadership Summit—Summit II Resource Paper Series*. Environmental Justice and Climate Change Initiative. <http://www.ejrc.cau.edu/summit2/SummIIClimateJustice%20.pdf> (accessed March 25, 2011).
- Nussbaum, Martha C. 2000. *Women and Human Development: The Capabilities Approach*. Oxford, UK: Oxford University Press.
- Nussbaum, Martha C. 2004. Beyond "Compassion and Humanity": Justice for Nonhuman Animals. In *Animal Rights, Current Debates and New Directions*, ed. Cass R. Sunstein and Martha C. Nussbaum. Oxford, UK: Oxford University Press.
- Nussbaum, Martha C. 2006. *Frontiers of Justice: Disability, Nationality, Species Membership*. Cambridge, MA: Harvard University Press.
- Nussbaum, Martha C., and Amartya Sen. 1992. *The Quality of Life*. Oxford, UK: Oxford University Press.
- Page, Edward. 2007. Intergenerational Justice of What, Welfare, Resources, or Capabilities? *Environmental Politics* 16 (3): 453–469.
- Pimentel, David, Laura Westra, and Reed Noss. 2000. *Ecological Integrity: Integrating Environment, Conservation, and Health*. Washington, DC: Island Press.
- Schlosberg, David. 2007. *Defining Environmental Justice*. Oxford, UK: Oxford University Press.

- Schlosberg, David, and David Carruthers. 2010. Indigenous Struggles, Environmental Justice, and Community Capabilities. *Global Environmental Politics* 10 (4): 12–35.
- Sen, Amartya. 1985. Well-Being, Agency and Freedom: The Dewey Lectures 1984. *Journal of Philosophy* 82 (4): 169–221.
- Sen, Amartya. 1999a. *Commodities and Capabilities*. Oxford, UK: Oxford University Press.
- Sen, Amartya. 1999b. *Development as Freedom*. New York: Anchor.
- Sen, Amartya. 2004. Why We Should Preserve the Spotted Owl. *London Review of Books* 26 (3) (February 5). <http://www.lrb.co.uk/v26/n03/amartya-sen/why-we-should-preserve-the-spotted-owl> (accessed **).
- Sen, Amartya. 2005. Human Rights and Capabilities. *Journal of Human Development* 6 (2): 151–166.
- Sen, Amartya. 2009. *The Idea of Justice*. Cambridge, MA: Belknap Press of Harvard University Press.
- Singer, Peter. 2004. *One World: The Ethics of Globalization*. New Haven, CT: Yale University Press.
- Vanderheiden, Steve. 2008a. *Atmospheric Justice*. New York: Oxford University Press.
- Vanderheiden, Steve. 2008b. Climate Change, Environmental Rights, and Emission Shares. In *Political Theory and Global Climate Change*, ed. Steve Vanderheiden. Cambridge, MA: MIT Press.
- Wissenburg, Marcel. 2011. The Lion and the Lamb: Ecological Implications of Martha Nussbaum's Animal Ethics. *Environmental Politics* 20 (3): 391–409.
- Young, Iris Marion. 1990. *Justice, Society and Nature: An Exploration of Political Ecology*. London: Routledge.

