REFLECTION, EVALUATION, INTEGRATION

Sovereignty in World Ecopolitics[1]

KAREN T. LITFIN

Department of Political Science, University of Washington

Over the last three decades, the number of international environmental agreements into which states have entered has proliferated enormously. In the 1970s it was commonly assumed that the cumulative impact of such agreements would be to undermine the institution of state sovereignty. Recent evidence, however, suggests that the trend toward international cooperation in the face of "the seamless web of nature" has resulted in something more subtle but perhaps equally profound: a shift in the practices and norms of sovereignty. This essay looks at the impact of international environmental problem solving on state sovereignty. As a prelude, it reviews recent literature from international relations theory that substantiates a more differentiated view of sovereignty, separating it into three components: authority, control, and legitimacy. With this more complex notion of sovereignty as a backdrop, the review argues that the proliferation of environmental agreements has in fact led to a complex web of "sovereignty bargains" through which states have increased their sovereignty vis-à-vis certain dimensions even as they have suffered losses of sovereignty vis-à-vis others. Although more research remains to be done, environmental cooperation appears to have indeed altered the nature and practice of sovereignty in the contemporary world.

A tacit assumption pervades the literature on international environmental issues: increased levels of global ecological interdependence are undercutting the institution of state sovereignty—or will do so in the future—perhaps decisively. With "the seamless web of nature" standing in apparent contradistinction to the man-made system of territorial states, efforts to cope with international environmental degradation are generally construed as presenting a challenge to state sovereignty. Although few writers have directly investigated the relationship between environment and sovereignty, many have made contributions that touch upon the question obliquely. An analysis of that literature can help us answer two closely

linked questions regarding the sovereignty-environment nexus. The first question addresses the impact of sovereignty on prospects for achieving environmental protection; the second involves the impact of international environmental responses on sovereignty as a political institution.

The first question is empirical, but it also has strong normative implications. Does sovereignty inhibit environmental protection? If so, should practitioners work to dismantle or at least diminish it? Since this issue first entered the international agenda in the 1970s, a widespread sense that the system of sovereign states hinders the realization of environmental values has emerged. Indeed, this was a central argument of the report commissioned for the first global environmental conference: the United Nations Conference on the Human Environment (Ward and Dubos 1972). Many good reasons exist to expect sovereignty to impede environmental protection. The territorial exclusivity upon which state sovereignty is premised appears to be fundamentally violated by transboundary environmental problems (Johnston 1992). Moreover, the logic of collective action suggests that sovereign states will be highly reluctant to engage in the kind of cooperative endeavors required for environmental protection (Olson 1982; Underdal 1983). The "sovereignty-as-enemy" thesis is appealing on historical as well as logical grounds: not only do ecological holism and territorial exclusivity appear to be mutually exclusive, but the modern state has been an agent or accomplice in ecological devastation across the globe. Unfortunately, the thesis is generally assumed rather than elucidated, in large part because "sovereignty" itself has remained until recently "an essentially uncontested concept" (Walker 1993:1).

Although the sovereignty-as-enemy perspective is appealing, a counterargument can be advanced that ecological integrity and state sovereignty do not necessarily stand in opposition to one another. Taking this tack, one might claim that only the state possesses sufficient authority, resources, and territorial control to enforce environmental rules and norms (Litfin 1993:95–96). Clearly, the negotiation, implementation, and enforcement of environmental treaties are largely in the hands of states. The worldwide proliferation of national environmental agencies, along with a dramatic increase in state-based regulatory and enforcement mechanisms, provides further evidence for this more optimistic reading. Indeed, given that state sovereignty can function as a bulwark against opportunistic economic forces, many environmental regimes seek to enhance state capacity, particularly in developing countries. Moreover, challenges to state sovereignty—for instance, those that are advanced on the basis of free trade principles—may be environmentally deleterious (Esty 1994). In 1994, for instance, the General Agreement on Tariffs and Trade ruled that the United States had no sovereign right to boycott Mexican tuna caught with fishing methods that killed large numbers of dolphins (Boyer and Watzman 1994:821). Thus, sovereignty may not be an unrelenting enemy of the environment. Nonetheless, even among those who claim that state sovereignty promotes ecological sustainability, the core notion of sovereignty remains untheorized, pointing to the need for some semantic dissection.

The very fact that both theses (that is, sovereignty as "enemy" and as "protector" of the environment) are tenable suggests that different conceptions of sovereignty are being applied. On the one hand, the principle of nonintervention, a corollary of sovereignty, seems likely to thwart international efforts to protect the environment. In an anarchic system, a sovereign state whose activities are harmful to other states or to the global commons is not answerable to any higher authority. The history of environmental treaty making is replete with such examples. The Principle of Sovereignty over Natural Resources, for instance, has engaged the United Nations since 1952 and continues to hinder progress on environmental cooperation (Rajan 1978; Noordwijk Declaration 1990). On the other hand, only states

can sign environmental agreements and oversee the bureaucratic apparatus to approve and monitor regulatory policies. Thus, one observer, after attributing the inadequacy of international environmental cooperation to the "indiscriminate deference to the 'sovereign' rights of nations," maintained that a large part of the solution depends upon "strengthening national capabilities" (Caldwell 1972:145). Sovereignty in its multiple guises appears to be both a friend and a foe to nature.

The second question, which is closely related to the first, is also empirical: Are international environmental responses diminishing, increasing, or in some other way altering the political practices associated with sovereignty? Sovereignty, taken to denote the state's exclusive authority within specified territorial boundaries, is typically thought to be "eroded" by efforts to address transboundary environmental problems. The geological metaphor is telling, because it conjures up a rather ahistorical and naturalistic image of sovereignty as a solid edifice. Yet, this monolithic interpretation is unhelpful for anything beyond the most general schematic purposes. Sovereignty is an aggregated concept that varies according to historical and social circumstances. Adopting a less dichotomous stance, this essay review suggests a third option: environmental responses contribute to the reconfiguration of sovereignty, a process that can only be grasped by disaggregating the key elements that constitute the term.

Neither the "erosion-of-sovereignty" thesis nor the "sovereignty-as-bulwark" thesis does justice to trends in global environmental politics. As Ken Conca (1994: 703) claims, both positions "fail to disaggregate what is in fact a complex and highly unevenly distributed set of international pressures on states to solve environmental problems." The scope of state autonomy may be narrowed by pressures from above and below, as the erosion-of-sovereignty thesis claims, even as the problem-solving capacity of states increases, as the second view argues. Thus, we may consider the elements of sovereignty, not with an eye to erecting a new master definition, but to understanding better the various claims that arise from its multifaceted character.

For the purposes of this article, the core conceptual elements constituting sovereignty are assumed to be "autonomy," "control," and "legitimacy," each of which operates upon the tangible dimensions of territory and population. Control, like power, is the ability to produce an effect. Autonomy, in contrast, refers to independence; it is a close cousin to control given that genuine independence in making and implementing decisions requires some degree of power. Legitimacy, finally, refers to the recognized right to make rules. As such, it contains a strong normative component, albeit one that is reinforced by control and autonomy. Of the three, legitimacy is the most problematic for international relations theorists because of its intersubjective nature and its association with popular sovereignty, but it may also be the most pivotal in the environment-sovereignty nexus. Although autonomy, control, and legitimacy are interwoven in practice, it is critical to distinguish them analytically. The commingling of these distinct dimensions is at least partly responsible for much of the theoretical incoherence that pervades discussions of sovereignty. Moreover, a strong precedent for distinguishing different dimensions of sovereignty has emerged in the literature (Barkin and Cronin 1994; Lapidoth 1994; Thomson 1995), and these three dimensions encompass most of the meanings currently in use.

Because international environmental responses typically involve a trade-off among autonomy, control, and legitimacy, it is more accurate to say that states engage in "sovereignty bargains" (Byers 1991) rather than ceding some monolithic principle of sovereignty. Control may be enhanced by sacrificing autonomy, for instance, or increased control may undercut a state's popular or international

legitimacy. Because autonomy, control, and legitimacy are themselves multidimensional, straightforward measurements of their increase or decline in the face of environmental responses may not be possible. A state's control over its own regulatory or policing apparatus may increase, for instance, as a result of efforts to address its declining ability to control transboundary pollutants or other environmental processes. The claim that various interdependencies, including ecological ones, are modifying the practice—and perhaps even the meaning—of sovereignty does not warrant the conclusion that sovereign states are about to be replaced by some new form of political organization. Rather, states engage in sovereignty bargains in which they voluntarily accept some limitations in exchange for certain benefits. The cumulative effect of these trade-offs, however, may be to alter the norms and practices of sovereignty by reconfiguring expectations regarding state autonomy, control, and legitimacy.

Before exploring the relationship of each of these three components of sovereignty to environmental issues per se, let us look at sovereignty more broadly from the perspectives of four distinct sets of theoretical approaches to international relations: realism, institutionalism, postinternationalism, and social constructivism. Besides providing a useful backdrop to the more specific exploration of the environment-sovereignty nexus, this discussion highlights the extent to which diverse conclusions regarding the status and durability of sovereignty rest in large part upon differing understandings of the term and its constituent elements.

Situating the Environment-Sovereignty Nexus in International Relations Theory

The erosion-of-sovereignty thesis first gained prominence in the literature on transnational economic relations during the 1970s (Vernon 1971). That literature emphasized the state's diminished autonomy and control in the face of multinational corporations. The interdependence literature took up this theme, attempting to reconcile the world of sovereign states with the apparent increase in the density of transnational relations (Keohane and Nye 1972, 1977). Many of the same dynamics involved in transnational economic interdependence are also involved in global ecological interdependence, which is not surprising given that the latter has become salient largely as a result of the former. But the dynamics of the two issue areas are also different in important ways. Although economic globalization presents clear challenges to states' autonomy and control, it does not pose the same issues for states' authority as does global ecological interdependence.

Much of the early literature linked transnational environmental interdependence to the demise of the state system and anticipated its eventual replacement by some far-reaching supranationalism or even world government (Falk 1971; Ophuls 1977). More recently, the supposed mismatch between the requirements of ecology and the structure of politics has been expressed in the famous dictum of *Our Common Future*: "The Earth is one, but the world is not" (World Commission of Environment and Development 1987:1). Some observers see in international environmental regimes the seeds of "one world." As one author has argued, "nations are in effect ceding portions of their sovereignty to the international community, and beginning to create a new system of international governance as a means of solving otherwise unmanageable problems" (French 1992:6). Others discern the "erosion of sovereignty" from below, with power and authority devolving from the state to local communities whose identities and livelihoods are more entwined with specific ecosystems (Hurrell and Kingsbury 1992:6–9; Ekins 1992; Fisher 1993). The proliferation of community-based environmental nongovernmental organizations (NGOs) is cited as evidence for this position. If sovereignty is somehow inconsistent with ecological integrity, whether on logical or practical grounds,

then we would expect to find it "eroded" by effective international responses to environmental problems. But, given the multiple guises of sovereignty, how are we to tell whether it is in fact being "eroded"? The question itself compels us to engage in a deeper explication of sovereignty. In short, "environment" provides a favorable arena for inquiring into the meanings of "sovereignty."

The sovereignty bargains that constitute the reconfiguration of political space in response to ecological exigencies are only comprehensible once sovereignty is disaggregated. The precedent for a multidimensional approach to sovereignty is well established in the literature (Mitrany 1966; Poggi 1990; Onuf 1991; Thomson 1995). The specific dimensions employed here—autonomy, control, and legitimacy—are the most widely used and, taken together, facilitate the most comprehensive approach to sovereignty. Moreover, sovereignty should be understood as involving rights, capacities, and responsibilities in three realms: (1) those under a state's jurisdiction, (2) those under other states' jurisdictions, and (3) those in the commons. Each of the three elements is being modified, in all three realms, by sovereignty bargains struck in order to address transboundary environmental problems. Yet, the term "sovereignty bargain" should be used with a good dose of caution because it connotes a certain degree of intentionality on the part of a unitary actor that may not actually exist. Nonetheless, it is a useful term for depicting the kinds of trade-offs and concessions that characterize the practices associated with global ecopolitics.

Legal versus Operational Sovereignty

Sovereignty is both a principle and a practice. As a principle, it is defined most narrowly as legal or constitutional independence (James 1986). This conceptualization informs the United Nations' principle of "sovereign equality," a seemingly absolute property that a political entity either has or does not (Nincic 1970). On this narrow reading, sovereignty is not eroded or threatened by international environmental agreements because the legal status of states does not change as a result of them. Indeed, because sovereign statehood is a prerequisite to negotiating and becoming a party to international treaties, one might argue that environmental regimes bolster and legitimate the principle of sovereignty. Nonetheless, even though this perspective contains an element of truth, it evades the larger questions regarding the impact of environmental agreements on states' control, autonomy, and legitimacy. For these reasons, Nicholas Onuf (1991:430) has called the definition of sovereignty as constitutional independence "legalistic and anachronistic." An emphasis on the operational dimensions of sovereignty, rather than a purely juridical conceptualization, is far more likely to generate useful insights into the impact of environmental and other interdependencies on political structures and practices.

Indeed, to accept sovereignty as indivisible is to skirt the most fascinating issues altogether, erecting instead a reified, ahistorical notion in place of the actual multifaceted set of practices that exists. A more fruitful approach, both for empirical and theoretical purposes, is to consider the multiple dimensions of sovereignty in terms of a field of meanings that is in constant flux, rather than as a fixed and enduring principle. To reduce sovereignty to "indivisible, absolute political authority" (Hinsley 1986:1) ignores the very interesting fact that the tasks associated with the exercise of authority can be and regularly are separated. Just as property constitutes a bundle of rights that can be disaggregated into use rights, hereditary rights, and so on, so too does sovereignty. The 200-mile Exclusive Economic Zones established by the Law of the Sea Treaty, for instance, did not simply extend the

territorial waters of the coastal states, it also instituted a form of functional sovereignty. Thus, even though functionalism's predictions on world order may have been overstated, its insight into the divisibility of authority has important implications for the unbundling of sovereignty (Onuf 1991:432–433). Indeed, sovereignty and private property have much in common (Kratochwil 1995), and contemporary environmental exigencies seem to be reconfiguring both.

More broadly, sovereignty can be understood as the principle underlying the Westphalian system of mutual rights and responsibilities, a principle that neorealists take as unproblematic (Waltz 1979) even though other scholars argue it is under attack from a host of practices emerging from global interdependencies (Zacher 1991). Yet, as Janice Thomson (1995) has persuasively argued, much of the debate between neorealists and interdependence theorists is rooted in their different usages of "sovereignty." Neorealists conceptualize sovereignty in terms of "self-help," or the state's decisional autonomy. For interdependence theorists, the state's decreasing ability to cope with permeable borders implies the "erosion" of its sovereignty. At the crux of the debate is the question of whether we are witnessing a transformation in the constitutive principles of the world political system.

Realism

Realists, like those who define sovereignty in terms of constitutional independence, tend to view it in rather absolute and ahistorical terms. This is not surprising given their assumptions about sovereignty and the anarchic international system—systemic anarchy being a logical corollary of state sovereignty. Sovereignty is the bedrock assumption of realism. For both traditional realists and neorealists, sovereign states, driven by power and interests, will find it very difficult to cooperate given that they ultimately insist on maintaining and safeguarding their own autonomy, control, and legitimacy. As Kenneth Waltz (1979:96) puts it, "To say that a state is sovereign means that it decides for itself how it will cope with its internal and external problems." So "when the crunch comes," a sovereign state will assert its sovereignty and thereby prevail over the collective will and prevent cooperation (Waltz 1979:74). Not surprisingly, realists have had relatively little to say about international environmental cooperation.

Although realists generally embrace a rather static notion of sovereignty, they also employ a variety of usages. Whereas Waltz defines it in terms of decision-making autonomy, Jean Bodin's classic formulation, "the absolute and perpetual power of a commonwealth," identifies it as supreme control (Frankl 1992:1). According to Thomson (1995:213), the essence of sovereignty for realists is "the state's ability to make authoritative decisions—in the final instance, the decision to make war." Realism's strong orientation toward questions of military power and violent conflict, in addition to its fundamental skepticism regarding the propensity of states to cooperate, may explain its general lack of interest in environmental issues. This raises the following question: if the state maintains a monopoly on coercive forces and the final authority to use them in war but loses its autonomy to make decisions regarding its natural environment, has its sovereignty been affected? Although realists might say no, room for disagreement certainly exists. In any case, whether they emphasize autonomy, control, or legitimacy, realists are united in their belief that a state-centric approach to world politics remains valid because sovereignty is not in any serious danger of disappearing.

One strand in the literature that consciously links environmental degradation to violent conflict, although it is not explicitly aligned with the realist tradition and does not make much reference to sovereignty, is the new environmental security literature. This literature sees "ecological scarcities" as a growing cause of violent

conflict (Homer-Dixon 1991). However, besides the fact that this literature tends to naturalize environmental problems (Lipschutz forthcoming), thereby masking their socioeconomic causes, it is as much concerned with intrastate conflict as with international conflict. Consequently, rather than bolstering the realist perspective on sovereignty, this literature tends to undercut it by decentering the state and highlighting sources of domestic, rather than international, violent conflict.

Although most realists adopt a static and ahistorical conception of sovereignty, Thomson and Stephen Krasner (1989) offer a distinctly different realist approach to sovereignty. They argue that the consolidation of state sovereignty during the modern era has provided the basis for economic and technological interdependence by guaranteeing stable property rights. From this perspective, state sovereignty, rather than being at odds with international interdependence, becomes a necessary condition for it. Although interdependence theorists might agree with this historical interpretation, they would make the further claim that the dynamics of interdependence eventually can and do pose serious challenges to state sovereignty. Even though the notion of sovereignty as a historically variable institution is useful in understanding the environment-sovereignty nexus, relating Thomson and Krasner's specific argument to ecological issues is doubly problematic. It is difficult to argue that the state has been a necessary precondition either to ecological interdependence or to the attempts to address environmental problems, even though the state's political prominence makes it an indispensable actor in global ecopolitics in the contemporary world order.

Given their understanding of sovereignty, realists have been at pains to explain the existence of international "cooperation under anarchy" (Oye 1986). Unfortunately, neither of the two realist explanations for international cooperation—based on hegemony and on egoistic state interest, respectively—accounts for international environmental regimes in even the broadest sense (Litfin 1993). First, the vast majority of environmental regimes have been established in the absence of a discernible hegemon. In Oran Young's blunt appraisal, "the hegemonic stability thesis is dead" with respect to environmental regimes (Young 1989:204). Second, because the construction or formulation of states' interests is at the heart of international environmental politics, an approach that fails to disaggregate the state and consider the role of knowledge in interest formation is bound to be of limited value in this area.

Institutionalism

Regime theory can build a bridge between realism and institutionalism, but it may also place realists on a slippery slope toward liberal institutionalism, an approach that has had a good deal to say about international environmental cooperation in recent years. According to liberal institutionalists, the anarchy of the state system is mitigated by the development of new norms and rules for collective environmental management (Osherenko and Young 1993). Robert Keohane, Peter Haas, and Marc Levy (1993:4–5) define institutions as "persistent and connected sets of rules and principles that prescribe behavioral roles, constrain activity, and shape expectations." The contributors to their anthology, *Institutions for the Earth*, focus on international regimes and organizations to make their point that "institutions matter." These authors find that sovereignty is not necessarily a hindrance to international environmental cooperation. Even though international institutions necessarily respect the principle of state sovereignty, they nonetheless can be effective in addressing global problems. Keohane, Haas, and Levy's (1993:23–24) general

conclusion is worth quoting because of its implications for the sovereignty-environment nexus:

> In answering the puzzle of effectiveness, we show that *state sovereignty is not incompatible with international progress in solving difficult problems . . .* But at the same time that institutions must respect the legal integrity of the nation-state, we conclude that *the most effective institutions penetrate the state politically to a high degree . . .* International institutions do not supersede or overshadow states. They lack resources to enforce their edicts. To be effective, they must create networks over, around, and within states that generate the means and the incentives for effective cooperation among those states. (emphasis added)

Thus, even though international environmental institutions do not curtail states' legal sovereignty, they nonetheless ingress upon the state.

International institutions may leave the legal sovereignty of states intact, but, as we have seen, a formalistic understanding of sovereignty as constitutional independence offers little in the way of insight into actual practices. Legal sovereignty may remain unchanged in the face of dramatic changes in operational sovereignty. If efficacious institutions "penetrate the state to a high degree," then we should expect to see some significant shifts in operational sovereignty. Given that institutions "prescribe roles, constrain activity, and shape expectations," they necessarily modify and reconfigure states' autonomy, control, and legitimacy. Indeed, Keohane, Haas, and Levy (1993:415–417) conclude that although some autonomy is lost, formal sovereignty is reinforced because states are validated as the only legitimate members of such institutions and functional sovereignty is enhanced because states acquire greater problem-solving capabilities. Thus, even though their explicit claim is that sovereignty remains intact when states involve themselves in international environmental institutions, they implicitly demonstrate that institutions can reconfigure state sovereignty even if they do not replace or erode it. In responding to ecological problems, states find themselves compelled to engage in *sovereignty bargains.*

In many ways, the environment-sovereignty question is a subset of the larger question about the relationship between international institutions and the state system. If sovereignty is the defining feature of states, then how can they voluntarily relinquish it by participating in international institutions? Institutionalists claim that even though sovereignty bargains reconfigure sovereignty, they do not necessarily diminish it. They would, however, be the first to admit that the more than 113 environmental treaties adopted since 1979 (United Nations Environment Programme 1991) could never have occurred under the more static conception of sovereignty espoused by realism. Yet, at least some institutionalists leave open the possibility that incremental changes precipitated by emerging international environmental practices could, in the long run, trigger a more dramatic transformation of the world political system. Peter Haas and Jan Sundgren (1993:419) draw the following rather enigmatic conclusion from their examination of the evolution of sovereignty in international environmental law:

> These new practices of sovereignty have emerged without a transformation of the juridical principle of sovereignty or of the international anarchic order within which countries exercise choice. Revolutionary change occurs through reformist means.

Apparently, the "revolution" alludes to environmental institution building, not to any deeper political transformation.

Yet, those who are skeptical about the ability of sovereign states to deal effectively with global environmental degradation (Newsom 1988/89; Mathews 1989) would likely find the institutionalist view deficient on two counts. First, the authors

of *Institutions for the Earth* measure effectiveness in terms of generating political activity, not actually solving environmental problems. Although the counterfactual analyses generally affirm that environmental conditions would have been worse without the institutions, a strong sense that existing institutional mechanisms represent a case of too-little-too-late remains. The ability of states to cope with future problems is likely to be substantially diluted if projected environmental trends are borne out, so that even if state sovereignty and environmental preservation are considered compatible today, they may not be in the future. Second, the institutionalists admit that "if there is one key variable accounting for policy change, it is the degree of domestic environmentalist pressure in major industrialized democracies, not the decision-making rules of the relevant institutions" (Keohane, Haas, and Levy 1993:14). Thus, international environmental institutions represent intervening variables not so much between states and political outcomes as between *popular pressure* and those outcomes. Those scholars who are skeptical about the compatibility between sovereignty and environmental protection tend to emphasize this perspective. To them, the growing importance of NGOs and other non-state actors in global environmental politics betokens the emergence of alternative sources of legitimacy and authority in the world system.

Postinternationalism, Global Civil Society, and World Civic Politics

Although international treaties and intergovernmental organizations have become increasingly important in addressing environmental problems, the driving force behind all of these apparently state-centric activities has been popular pressure expressed through NGOs. Rarely does the state, even in its most environmentally sensitive agencies, take a proactive ecological stance—either on international or domestic issues. NGOs are the driving force behind efforts to cope with ecological problems, at every level of social organization. Proponents of postinternationalism, global civil society, and world civic politics have advanced the general claim that the activities of environmental NGOs and social movements are generating new patterns of transnational political authority. Although some differences exist among these theorists, they are united in their view that the state-centric interpretation of world politics espoused both by realists and institutionalists is inadequate and that the new patterns of authority generated by these emergent citizens' networks pose a significant challenge to traditional understandings of state sovereignty.

James Rosenau (1990, 1993) argues that contemporary patterns of global governance are being driven by a "skill revolution" at the level of individuals and "authority crises" at the level of states that challenge the latters' competence and therefore their legitimacy. His "postinternationalist" perspective, however, does not entail the eclipse of the nation-state by world government or any other supranational entity. The state persists, being "both indispensable and inadequate" (Rosenau 1990:249). The relocation of authority "downward" toward subnational groups is at least as central to postinternationalism as its relocation "upward" to supranational, international, or transnational organizations. The result is not the demise of sovereignty but a "bifurcated" world system consisting of sovereign states and "sovereignty-free" multicentric actors, implying that certain prerogatives are available to the latter but not to the former.

Certainly, evidence of the trends that Rosenau describes exists in global ecopolitics. As an illustration, consider the interventionist actions of Greenpeace: blocking whaling vessels, sailing into nuclear testing zones, and distributing environmental literature to citizens in the former communist countries. Prevailing

norms of sovereignty would inhibit states from engaging in these sorts of activities. Rosenau's multicentric world reverses the assumptions implicit in the term "nonstate actor," which privileges the state as the primary point of reference and the defining political institution. Rosenau's analysis suggests instead that "nonstate actors" can have a positive identity of their own.[2]

Global civil society may be viewed as a key subset of Rosenau's multicentric world of sovereignty-free actors, the latter including such diverse entities as the United Nations, the European Union (EU), multinational corporations, and nongovernmental organizations. According to Ronnie Lipschutz (1992:390), global civil society consists of "self-conscious constructions of networks of knowledge and action, by decentred, local actors, that cross the reified boundaries of space as if they were not there." In his recent book, written with Judith Mayer, Lipschutz (1997) offers numerous examples of local action being linked increasingly to global-spanning networks of knowledge and practice. Moreover, both states and international organizations are increasingly turning to global civil society for help and advice. His explanation for the recent emergence of global civil society is much the same as Rosenau's explanation of the bifurcation of world politics: as a functional response to the declining ability of states to cope with problems and as a reaction to the "leaking away of sovereignty" upward and downward (Lipschutz 1992:399).

The place of sovereignty in global civil society is ambiguous. On the one hand, it may be "leaking away"—perhaps because, in the words of Martin Shaw (1992: 431), the "ideology of international society preserves sovereignty," whereas global society does not. On the other hand, as M. J. Peterson (1992:387) argues, there may be "enough reciprocal benefit from each others' presence for states and transnational networks of societal actors to continue to co-exist." In Rosenau's terms, the state-centric world and the multicentric world can continue to exist side by side. In any case, because global civil society fosters the emergence of alternative structures of authority and criteria for legitimation, it leads to a reconfiguration (if not an erosion) of sovereignty.

Paul Wapner's (1995, 1996) writings on environmentalism and world civic politics embrace many of the understandings advanced by the global civil society literature. But Wapner goes a step further by insisting that transnational environmental activities are political and not merely societal. Evoking a broad, nonstatist notion of politics as "the employment of means to order, direct, and manage human behavior in matters of common concern and involvement" (Wapner 1996:7), he suggests that global ecopolitics is generating significant new forms of governance, primarily through certain cultural shifts associated with the diffusion of ecological sensibility. Wapner identifies these new forms of governance with "world civic politics," emphasizing that transnational environmental activist groups generally operate in the porous boundaries between the state and civil society. Sovereignty, therefore, should no longer be taken for granted as the defining feature of world politics. Its meaning may be reconfigured under pressure from transnational groups who insist that it encompass not just rights but also responsibilities. Further, the dramatic increase in transnational citizen activism suggests that the time has come for international relations scholars to consider the implications of democratic participation for sovereignty.

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[2]Notice the similar irony in the term "nongovernmental organization," which likewise privileges the state even though those who emphasize the significance of NGO activities often wish to remove the state from the center of their analyses. Perhaps a preferable term would be "popular pressure group" or "civil society organization."

While the literature on global civil society, postinternationalism, and world civic politics finds that efforts to address environmental degradation are likely to result in a loss of autonomy and control for states, their primary focus is on questions of authority and legitimacy. Thus, this body of literature takes up where institutionalism leaves off. It attempts to understand the relationship between citizen pressure, which even the institutionalists admit is a primary force driving regime formation, and political outcomes. As such, it incorporates certain elements of sovereignty that are absent in the other schools of thought. Put differently, this literature resurrects for international relations theory a dimension of sovereignty that has been almost universally ignored: *popular sovereignty*. The dramatic proliferation of NGOs and their increased visibility on the world scene suggests that issues of democratic participation can no longer be left to scholars of domestic politics or political theory but must be embraced by the mainstream research agenda of international relations.

Social Constructivism and Poststructuralism

Those approaches to environmental politics that emphasize the pivotal role of transnational activist groups would tend to concur with the social constructivist understanding of sovereignty as a mutable set of practices, although the former tend to be more concerned with contemporary developments than historical interpretation and are less attuned to the methodological debates that occupy the social constructivists. Though institutionalist approaches also hint at the socially constructed nature of sovereignty, social constructivists go further. To them, the sovereignty bargains embodied in the wide range of international environmental institutions adopted in recent years suggest that sovereignty is "what states make of it" (Wendt 1992). The constructivist interpretation of sovereignty as a historically variable set of practices, rather than a solid edifice that can be eroded or bolstered, makes a useful contribution to our attempt to understand the environment-sovereignty nexus (Biersteker and Weber 1996). Poststructuralists add to this a critical perspective that sees discourses of sovereignty as "actively involved in the construction of reality through (in Nietzsche's words) 'the mobile army of metaphors'" (Bartelson 1995:18).

As Cynthia Weber (1992:200–203; 1995:6) argues, traditional realist and scientific-behavioralist understandings of sovereignty depend upon a logic of representation that assumes a fixed referent. R. B. J. Walker (1993) concurs, noting that the very attempt to treat sovereignty as a matter of definition encourages a certain amnesia about its historical and cultural character. Jens Bartelson (1995:17) carries this line of thinking a step further. He is critical not only of conventional international relations scholars but also of structurationists like Anthony Giddens, John Ruggie, and Friedrich Kratochwil who treat sovereignty as a constitutive principle without ever attempting to delve into *how* it is constituted. Bartelson's argument against the structurationists is not so much based upon their failure to view sovereignty in historical terms, given that they have advanced a far more historically nuanced understanding of sovereignty than conventional theorists. Rather, he is deeply skeptical of *any* approach that depicts sovereignty as having a positive referent, concluding that "sovereignty itself is not amenable to empirical research, but discursive practices of sovereignty are" (Bartelson 1995:52).

Although Bartelson's arguments provide a sobering antidote to less reflective approaches, which tend to reify sovereignty, they need not preclude empirical investigation into the changing nature of the practices associated with sovereignty.

Indeed, Bartelson's criticism offers a strong justification for a multidimensional approach to the study of the environment-sovereignty nexus. Given that the empirical status of "sovereignty" is uncertain, we are well advised to proceed by unbundling the term into such elements as autonomy, control, and legitimacy, which are perhaps more readily amenable to empirical research.

The social constructivist account of sovereignty as a historically contingent set of practices makes a useful contribution to an understanding of global ecopolitics. Sovereignty has proven itself to be a durable and mutable concept, with its locus shifting from God (and his delegate in Rome) during the Middle Ages, to the monarch in the early modern period, to "the people" during the Enlightenment. As Edmund Morgan (1988:57) suggests in his account of the evolution of the modern conception of sovereignty, "revolutions in thought frequently take the form of shifts in emphasis, with old ideas not repudiated, but put to new uses."

Environmental practices appear to be generating new sources of and criteria for legitimacy, including scientific knowledge and intergenerational accounts of responsibility (Weiss 1989: Litfin 1994; Deudney forthcoming). Walker's (1993) argument that social movements are increasingly challenging the distinctions between inside and outside, culture and politics, thereby contributing to the contestation of sovereignty, offers a useful complement to the global civil society literature. Likewise, the transboundary nature of environmental degradation is changing the meaning of intervention and legitimating certain norms, which would have been seen in the past as violating the prerogatives of sovereignty.

The Tripartite Division of Sovereignty

Although the precedent for disaggregating sovereignty is well established, the tripartite division proposed here—distinguishing autonomy, control, and legitimacy—requires some justification. As we have seen, various schools of thought tend to emphasize one or the other of these dimensions of sovereignty, a tendency that explains at least part of their theoretical disagreement. Rather than giving preference to one formulation over the others, it makes sense to conceptualize sovereignty as broadly as possible. Given that "sovereignty" is more a field of meanings than a concrete entity, we also need to be comprehensive in our formulation in order to be responsive to ongoing debates.

The tripartite division employed here is influenced by Thomson's (1995:219) schematization, in which sovereignty is conceptualized in terms of five elements: recognition, the state, authority, coercion, and territory. Some of Thomson's elements are encompassed by the three dimensions employed here, but others presume a state-centric notion of sovereignty that is not particularly helpful for our purposes.

Recognition is clearly central to the notion of sovereignty, given that a sovereign is recognized as such only through an intersubjective consensus. Moreover, recognition encompasses the notion of legal sovereignty because it is only through mutual recognition that the club of states is established and maintained. Thomson interprets recognition in terms of two questions: who has the power to recognize, and what must an entity do to be recognized as sovereign? Although the element of recognition relating to intersubjective consensus is encompassed by the dimension of legitimacy, Thomson's two questions are both answerable in terms of a political entity's capabilities or control.

Because sovereignty is typically considered an attribute of the state, rather than being definitionally linked to it, the state is not included here as an element of sovereignty, although clearly a pivotal issue is the impact of environmental responses on state autonomy, control, and legitimacy. Similarly, territoriality is essential to

the modern notion of state sovereignty (Ruggie 1993), but that does not make it integral to sovereignty in general. Given that entities other than the state have been and may in the future be considered sovereign, territory need not be associated with sovereignty. Moreover, the empirical issues that are associated with territoriality are encompassed by the dimensions of autonomy and control.

Finally, although authority is generally understood among social scientists as denoting legitimate control, Thomson (1995:223) detaches it from its Weberian association with state-society relations, rooting her conception of authority in the mutual recognition by other power-holders (states) of a claim to the exclusive right to make rules. This state-centric and militarily oriented conception, premised on "the state's dependence on other states for its authority" and "the state's ability to make authoritative decisions—in the final instance, the decision to make war" (Thomson 1995:213, 222), is incapable of encompassing the societal pressures and alternative patterns of authority that characterize global environmental politics.

Because authority is closely linked to control in the Weberian tradition, and even confused with it at times in the international relations literature, the tripartite division of sovereignty proposed here includes legitimacy, which is analytically distinct from control yet broad enough to incorporate the legitimation of international norms, the multiple forms of intersubjective consensus that inform sovereignty, and popular forms of legitimation and consent. This emphasis is consistent with the recent turn in international relations to the role of legitimation in the changing norms of sovereignty (Barkin and Cronin 1994). Similarly, given the nongovernmental sources of environmental action, it appropriately echoes the themes raised in the literature on the globalization of democracy (Connolly 1993; Held 1995).

If we understand sovereignty as a historically variable amalgamation of autonomy, control, and legitimacy, then much of the literature on global environmental politics indicates that the referents of those terms are undergoing significant alterations. Given that constitutive principles are only modified through changing practices, we turn now to an investigation of how environmental practices are altering the components of this elusive thing called sovereignty.

Environmental Problems and Sovereignty Bargains

Most of the environmental literature does not address the question of sovereignty directly, tending instead to assume that some stable and unitary conception of sovereignty is eroded by efforts to address environmental problems. Yet, as we have seen, sovereignty is a variable practice, capable of mutating to survive in a wide range of historical and cultural contexts. Indeed, contemporary environmental responses appear to generate new norms and practices that are best appreciated in light of a disaggregated conception of sovereignty. Although autonomy, control, and legitimacy are often interrelated in reality, this particular multidimensional conceptualization turns out to be quite useful in gaining an analytical understanding of the sovereignty bargains that characterize global ecopolitics. Moreover, this formulation has the advantage of decentering the state, an important aspect given that nonstate actors are frequently key players in the reconfiguration of sovereignty.

It should also be noted that sovereignty bargains are likely to vary according to the nature of the environmental problem at hand. Questions of *transboundary pollution*, *internal natural resource degradation*, and *global commons* have different implications for traditional norms of nonintervention. Not surprisingly, many of the

most far-reaching international regimes involve the global commons—such as the ozone layer of the atmosphere, Antarctica, outer space, and the high seas—areas of the globe that have not been "sovereignized" (Litfin forthcoming).

On the other hand, issues of transboundary pollution may be more readily resolved under traditional norms of sovereignty than problems of internal natural resource degradation. As Christopher Stone (1993:73) points out, principles of international law could be invoked by Canada when an out-of-control Soviet satellite fell on Canadian soil, even though it fell in a remote area and did no obvious damage. These principles would have been less clearly applicable if the satellite had fallen in the Arctic beyond Canada's pollution control zone. Similarly, the transboundary nature of the Chernobyl accident precipitated a host of international agreements on nuclear safety and disaster notification. Had a similar catastrophe occurred on the high seas, such an outcome might not have been so likely.

Traditional norms of nonintervention associated with state sovereignty make issues of internal resource degradation especially difficult to address. Indeed, sovereignty has often been taken to connote the state's right to damage its internal environment as it sees fit. Yet, a number of "internal" resource issues have been addressed by international regimes, ranging from trade in endangered species to biodiversity conservation. These regimes, however, often entail reframing the issues as affecting the global commons. Some areas, like tropical forests, have been the focus of heated debate with respect to how they are framed. Is the Amazon, for instance, a Brazilian resource or a global commons? Yet, not all commons issues entail the loss of sovereignty for developing countries. Marian Miller (1995; forthcoming) argues that developing countries fare better when the resources in question, such as ozone, are common pool resources. The perception of interdependence makes it easier for them to press for concessions successfully. Interestingly, because the norms of nonintervention are generally considered to apply to states rather than (or at least more than) to nonstate actors, transnational NGOs have been especially adept at bringing "internal" resource issues to the international agenda. For instance, consider the alliance between the Rainforest Action Network and the Kayapo people that succeeded in halting Brazil's plans to build a giant dam on the Amazon River.

Clearly there are important differences in the implications for sovereignty of these three broad categories of issues, but the literature has not gone very far in explicating and developing these distinctions. Future efforts to move this research agenda forward, however, would likely benefit from the sort of conceptual disaggregation suggested here.

Autonomy

Of the three components of sovereignty, autonomy, which is by definition reduced through cooperation, is the most obviously compromised by international environmental institutions. Autonomy involves two dimensions with respect to state sovereignty: independence in decision making and independence in action. The latter aspect of autonomy slides easily into control given that the ability to act autonomously requires power relative to other actors. Hence, this section focuses upon decision-making autonomy, leaving most of the discussion of the state's ability to act independently to the following section on control. The discussion of states' ability to act independently in the global commons, however, is included in this section because institutional limitations on this aspect of autonomy do not concern relative power and control as much as the right to act unilaterally with respect to resources held in common.

In relation to what set of actors must a sovereign state be autonomous? For international relations scholars and diplomats, the state's autonomy vis-à-vis other states is key; the principle of nonintervention by foreign states is accepted as integral to state sovereignty. Yet, other scholars and practitioners might emphasize the state's autonomy relative to actors within its own borders, in particular societal actors (Migdal 1980). This internal domain is important, but because the state's internal autonomy is largely a function of its ability to exercise control and authority within its borders, it is left to later sections. Thus, the focus here is on states' decision-making autonomy with respect to external actors.

Joint choices, which are the essence of international cooperation, necessarily preclude full autonomy for individual actors whether in environmental or other matters. Lawrence Susskind (1994:22) argues that the mere act of coming together to address transnational environmental problems requires that states sacrifice decision-making autonomy and thereby "surrender some degree of sovereignty." Sovereignty bargains, which involve trade-offs among autonomy, control, and legitimacy, usually entail some loss of autonomy, even if they increase the state's control and authority in certain respects. Although it is true that states retain the independent capacity to accept or reject an international agreement, and to that extent they retain autonomy, a host of pressures and incentives severely constrain that autonomy in practice (Young 1989). Equally important, international law constrains states' decisional autonomy by obliging them to make and enforce certain laws (Sand 1990). Again, though they are free to abrogate their agreements, certain costs inhibit them from doing so (Chayes and Chayes 1991).

Although much of this applies to international cooperation in general, the environmental arena involves dynamics and mechanisms that challenge state autonomy in distinctive ways. Consider, for instance, how states' autonomy is curtailed by the ways in which environmental regimes are formulated. The graduated approach, from "framework convention" through a series of increasingly stringent regulatory protocols, has become the hallmark of environmental treaty making. The "soft law" of the framework convention, which makes a treaty more palatable to states that might feel that their sovereignty is threatened by stronger measures, seems to provide a way for states to retain their decision-making autonomy. Yet, the historical record shows that once states have acceded to nonbinding principles or other weak agreements, they usually find it difficult not to agree to increasingly more robust commitments (Porter and Brown 1995). The ozone treaties offer a clear example of this process. The virtually ineffectual Vienna Convention of 1985 was followed by the 1987 Montreal Protocol, which was amended by increasingly stringent agreements in 1990, 1992, and 1994 (Litfin 1994). A similar process has been used in the formation of regimes for acid rain (Levy 1993), climate change (Bodansky 1993), and natural resources in Antarctica (Kimball 1990). By committing themselves to abstract principles of environmental protection, states open themselves to all sorts of pressure down the road, from internal and external sources, to adhere to those principles. International agreements, whether binding or not and whether regulatory or not, establish collective norms that reduce the state's ability to make decisions autonomously.

To a greater extent than in other international issue areas, environmental regimes are dynamic, in large part because they tend to be science driven. As new information becomes available, states come under pressure (mostly from citizen groups but also from one another) to update their practices. As Thomas Gehring (1994) argues, the dynamism of environmental regimes is essentially about the evolution of collective norms. Although states cannot be forced to assent to regulatory standards, the gathering of information that provides the basis for their

revision is largely out of the hands of most states. Only those states with substantial expertise are likely to be represented on the panels that produce the international scientific and technical assessments, and even then these experts do not necessarily represent the interests of their state of origin. Whenever possible, most states prefer to rely on international sources of scientific information. Thus, even though only a few states possess substantial expertise in climate modeling, that expertise has been pooled in the Intergovernmental Panel on Climate Change, the authoritative international body on climate issues. On the other hand, there are instances in which the scientific apparatus of a particular state in a specific area so far outstrips that of other countries that its agencies are called upon to perform the international scientific assessments (NASA and UNED 1995; Intergovernmental Panel on Climate Change 1990).

In any case, once the international community has formalized a regime, agenda setting and information gathering are largely directed by the new institutions, thereby imposing serious limitations on the decision-making autonomy of the member states. The expanded role of intergovernmental organizations and even NGOs in setting environmental standards and monitoring their implementation broadens the scope of actors formally entitled to identify and remedy violations, further constraining states' autonomy (Sands 1994). For instance, the World Wildlife Fund has come to play a vital role in monitoring and implementing the Convention on the International Trade in Endangered Species (French 1992:32).

In some cases, the right to set new environmental standards is delegated to the governing bodies of a specific regime, further diminishing states' policymaking autonomy. Although these bodies are composed of representatives from member states, they do not always require unanimity; some can set new standards on the basis of a two-thirds majority or some other formula (French 1992:27–28). The International Maritime Organization, for instance, which oversees the administration of the International Convention for the Prevention of Pollution from Ships (MARPOL), has this power (Johnston 1988; Mitchell 1994). The decision-making authority of the whaling states has been significantly restricted by the majority voting procedures of the International Whaling Commission, which make it possible for nonwhaling states to set global standards. The whaling states are free in principle to violate these norms and withdraw from the institution, but they risk their international reputation and possibly economic sanctions if they do so (Schneider 1991; Mitchell forthcoming).

Moreover, as Susskind (1994) points out, even a state that does not consent to a treaty is still part of the international system, and so its citizens and businesses may find themselves compelled to abide by the treaty when certain norms are asserted in bilateral relations or by domestic or international courts. As Susskind (1994:48–49) argues,

> Although countries are sovereign, and may not give their consent to a particular treaty, they are part of an intergovernmental system that expects them to meet common standards of behavior. A failure to behave as expected may not lead to punishment, but it may lead to other costly and politically damaging outcomes, the most injurious of which is political embarrassment at home.

For all these reasons, the remarkable proliferation of international environmental institutions in recent years has significantly curtailed states' decision-making autonomy.

The most obvious instance of the transfer of state autonomy regarding environmental decisions to a supranational organization is the EU's expanding policymaking apparatus. Clearly, the harmonization of European environmental standards represents a serious encroachment on individual states' autonomy to set their own standards (Judge 1993). Yet the EU's intervention in domestic

environmental matters, and thus its infringement on state sovereignty, has not been as dramatic as one might imagine. States continue to enjoy extensive autonomy in the implementation of EU directives (From and Stava 1993). In the long run, however, the emerging principle of "subsidiarity," or the idea that policies should be addressed at the political level most appropriate to the problem being addressed, may present the greatest challenge to state autonomy in the EU. The principle represents a way of imagining political responses to environmental needs that is not encumbered by any explicit relationship to sovereignty (Jupille forthcoming). Decision making and implementation, then, could occur at the national, supranational, or subnational level, with potentially far-reaching implications not only for EU member states' autonomy, but their control and authority as well. Maurice Strong (1987), Secretary-General for the UN Conference on Environment and Development (UNCED), has even proposed that the subsidiarity principle be applied on a global scale.

Whereas EU states are intentionally limiting their own autonomy, developing countries complain that their autonomy is being unfairly hampered by global environmental cooperation. In particular, they decry the emergence of "green conditionality," or the attachment of environmental conditions to developmental assistance "which would have outsiders determine developing countries' priorities" (Barco 1990:205). Although multilateral banks and aid agencies cannot press binding policies on developing countries, so that formal autonomy is maintained, their lending policies may, in practice, constrain states' freedom to determine their own environmental policies. These sorts of concerns were at the root of developing countries' reassertions of state sovereignty at the 1992 Earth Summit in Rio. Moreover, recent efforts to help developing countries comply with international environmental agreements, such as the Multilateral Ozone Fund, may enhance their control yet diminish their autonomy (South Centre 1991; Rajan 1993). As Philippe Sands (1994:51) puts it, "providing assistance to developing countries is internationalizing the domestic implementation of international environmental obligations." Thus, the autonomy of developing countries, which is already challenged by international economic dynamics (Thomas 1985), seems to be further compromised by international environmental cooperation.

It would be rash, however, to conclude that states have utterly lost their autonomy in the face of global environmental exigencies. The history of environmental cooperation is strewn with instances of states asserting their right to maintain decision-making autonomy, from Malaysia and Brazil on forestry practices, to Norway on whaling, to the United States on greenhouse gas emissions. Indeed, many regimes have been seriously weakened or delayed because of the sovereignty claims of "laggard states" (Porter and Brown 1991) wishing to maintain their policymaking autonomy. This phenomenon is behind the "least-common-denominator" effect that so often characterizes environmental agreements. Nonetheless, within the past two decades international environmental practices taken as a whole have tended to constrain state autonomy.

Noteworthy cases also exist, however, in which the autonomy of certain proactive states has furthered the objectives of environmental protection. Any state has the sovereign right to adopt standards that go beyond existing norms of the international community, except when such standards might be construed as barriers to free trade (Esty 1994). Indeed, unilateral environmental action by certain "lead" states has had the eventual effect in many cases of strengthening international standards. The "30% Club," spearheaded by West Germany to voluntarily reduce sulfur dioxide emissions by 30 percent in the mid-1980s, led to the formal adoption of that standard in the Helsinki Protocol to the Convention on the Long

Range Transport of Air Pollution within just two years (Levy 1993). Thus, state sovereignty is not necessarily inconsistent with environmental integrity, given that states can exercise their sovereignty in order to protect the environment. Nonetheless, even though states' autonomous decision-making capacity was environmentally beneficial in these instances, their ability to push new standards forward unilaterally ultimately constrains the autonomy of other states.

Thus far we have emphasized states' decision-making autonomy over issues within their own borders. Yet, beyond state boundaries important arenas exist in which states have traditionally exercised autonomy in both decision making and action: the global commons. The norms of sovereignty have until recently granted states virtually full autonomy in areas such as Antarctica, the high seas, and the global atmosphere. It is precisely within these areas that the greatest limitations have been placed on states' abilities to do as they please—perhaps because global commons fall outside the jurisdiction of any state, that is, they have not been "sovereignized." The 1982 Law of the Sea Treaty, for instance, promulgated the notion of a "common heritage of mankind" that, had the treaty been ratified, would have "diminished the zone of absolute sovereignty of individual states (i.e., whenever their actions threatened global environmental quality)" (Susskind 1994:22–23). Likewise, the ability to restrict whaling or regulate the production of ozone-destroying chemicals may derive in large part from the fact that these activities affect "nonsovereignized" areas of the globe (Miller forthcoming; Mitchell forthcoming).

Two treaties governing activities in Antarctica place significant limitations on states' autonomy of action there: the 1980 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR, updated in 1990) and the 1991 Convention on the Regulation of Antarctic Mineral Resources Activities (CRAMRA). The latter includes the Protocol on Environmental Protection that places a fifty-year moratorium on mineral exploration (Rosenau and Durfee 1995). The CCAMLR is the only international agreement that explicitly applies the principles of ecosystemic management promoted by conservation biologists, suggesting that state sovereignty may frustrate reliance on ecological principles at the international level (Ward forthcoming). Yet, it is noteworthy that several states with territorial claims in the Antarctic were willing to accept severe constraints on their autonomy under these conventions.

In general, then, international environmental institutions place significant constraints on states' decision-making autonomy, as well as specific constraints on their independence of action in the global commons. If these institutions, however, represent sovereignty bargains, then overall sovereignty is not necessarily eroded, for diminished autonomy may be the price to be paid for enhanced control or legitimacy.

Control

If sovereignty is about control, then what are the objects of that control? Although the international relations literature has traditionally emphasized the ability of states to prevent intervention by human agents from foreign countries, a broader perspective would add the state's ability to control the people and natural resources within its borders as well as externally generated processes that might affect them. In the contemporary world, environmental dynamics seem to threaten states' abilities to control people, processes, and pollutants at the same time as they necessitate the creation of methods and institutions to control such things. Thus, whereas environmental agreements seem inevitably to limit a state's autonomy, that result is not so obvious with respect to control.

The principle of nonintervention by foreign states, considered essential to state sovereignty, is delineated by territorial boundaries (Ruggie 1993; Weber 1995). Traditionally, intervention has been understood in terms of military force, but this understanding is currently being reconsidered. The technological, economic, and ecological exigencies of the late modern period, along with the material weaknesses of many Third World states, have generated new forms of intervention that elude conventional categories, including a host of transboundary pollutants and interventionist environmental policies. Thus, the meaning of nonintervention is being renegotiated in the context of global ecological interdependence.

One consequence of international environmental regimes is that the function of boundaries is being altered as "the bundle of rights conventionally associated with full territorial sovereignty" becomes untied (Kratochwil 1986:29). If territory provides the container for state sovereignty, then transnational environmental problems seem to be remolding that container. When chloroflourocarbons (CFCs) from Seattle deplete New Zealand's ozone layer and methane from India contributes to the melting of the polar ice caps, the presumed inviolability of states' territorial borders has clearly been compromised. The Chernobyl nuclear explosion functioned as a wake-up call in this regard. In Eduard Shevardnadze's words, "Chernobyl made it abundantly clear that from then on, no ecological calamity could any longer be regarded as pertaining solely to the national territory on which it had occurred" (cited in French 1992:5). Ecological interdependence, thus, is revising the definition of nonintervention and the norms of territorial exclusivity associated with state sovereignty.

A close analysis of environmental practices highlights the fact that territory itself is socially constructed. Thus, territory cannot be a taken-for-granted container for state sovereignty. As Thom Kuehls (forthcoming) argues, territories are constructed through a series of disciplinary maneuvers that make them available as resources to the state. He also argues that the effectiveness of transnational environmental NGOs stems largely from their ability to operate in the "smooth space" between state and interstate structures, as opposed to the disjointed political arena of territorially defined states. In this light, NGOs call into question the nation-state as the inevitable locus of politics.

The social construction of "territory" among indigenous peoples, for instance, is strikingly different from its construction by the modern state (Kempf 1994; Wilmer forthcoming). Territory in sovereign states is equated with natural resources available for economic or geopolitical exploitation. The instrumental dimension, however, is only part of the meaning of territory for indigenous peoples, and it is typically overlaid with a complex web of cultural and religious practices that underscore its sacred meaning (Interpress Service 1994). Given that the number of distinct ethnic groups—probably around 6,000—far exceeds the number of nation-states, the territorial sovereignty of most states has never been absolute (Clay 1994).

When indigenous peoples have been able to preserve their cultures to any meaningful extent, it is often because they "occupy some of the most remote or harshest land on Earth, land which today represents the 'last frontier' for developing and developed nations alike" (Byers 1991:68). Development by invasion of indigenous territories, or internal colonialism, is common practice. According to one estimate, most of the world's violent conflicts are being fought over indigenous peoples' territories (Nietschmann 1986). Not surprisingly, indigenous peoples who happen to dwell in the "last frontier" frequently become the voices of ecological sustainability, whether with respect to dams, mining projects, or forestry ventures (Hyndman 1994; Sponsel 1995). Consequently, some indigenous

peoples have formed international and even global alliances for information sharing and mutual support. In their quest to preserve their territories, they have also allied themselves with environmental NGOs (Kemf 1994). Territory, therefore, should not be understood simply as an empty and undifferentiated container for state sovereignty but as an intersubjectively constructed and potentially negotiable construct.

The assignment of ecological responsibilities for harmful processes that emanate from within the borders of "sovereign" states, articulated in recent international regimes, reaffirms that territoriality can be renegotiated. If states are responsible for overseeing activities within their borders, they may also be assigned responsibility for harmful processes that emanate from within their borders and affect people in other states. This principle has been accepted in treaties on a wide range of air, water, and land pollutants. Ruggie (1993) observes that nonterritorial functional space is the "place" in which international society is anchored. We might add that the social meaning of territory is being renegotiated within that space.

Even if territorial sovereignty is being reconfigured in certain areas, it continues to impede global action on a number of issues. As Stone (1993:35) argues,

> Absent some recognizable infringement of territorial sovereignty, many local factors that have in the aggregate considerable implications for neighboring states and the biosphere, such as population control, forestry practices, agricultural techniques, public health administration, cultural attitudes (what constitutes a comfortable life?), are, as a practical matter, beyond the reach of international law.

The principle of territorial sovereignty, for instance, is the fundamental reason that international negotiations on pollution of the oceans has focused on oil pollution on the high seas, even though land-based sources are far worse. As Michael M'Gonigle and Mark Zacher (1979:345) conclude in their study of pollution at sea,

> [As] a readily identifiable source largely beyond the prickly barrier of national sovereignty, ship-generated oil pollution is one of the easier of these many threats to control. It was for this very reason that vessel-source pollution was singled out for detailed treatment by the Law of the Sea Conference, while other, more serious land-based sources were made subject to only the vaguest obligations.

This is consistent with the observation that the norms of sovereignty have been most radically challenged in the global commons. For example, because states are concerned with maintaining their territorial sovereignty, inspection tends to be part of the compliance provisions only for global commons regimes, such as the 1959 Antarctica Treaty and the 1973 International Convention for the Prevention of Pollution from Ships (Chayes and Chayes 1991). We should not, therefore, be too sanguine about the near-term possibilities for the wholesale elimination of territorial exclusivity, even if it is being significantly renegotiated on some fronts. Nonetheless, the meaning of nonintervention is now open to revision (Weber 1995:201), a process that is evidently under way with respect to environmental concerns.

Transboundary pollution problems are often framed in terms of foreign intervention and can be viewed as clashes among competing sovereignty claims. Sweden, for instance, claimed that the death of its lakes in the 1960s and 1970s constituted a form of intervention by Britain and West Germany, whose export of sulfur dioxide emissions was linked to acid precipitation. Britain defended its "sovereignty" until the mid-1980s, insisting that any international efforts to regulate sulfur emissions represented a form of foreign intervention (Levy 1993). When the issue was resolved in favor of the Nordic countries, largely because of intense pressure from transnational environmental groups, the meaning of intervention

had in effect been expanded in a way that diminished state control over internal processes.

Concerns about foreign intervention are expressed most frequently by developing countries, many of which suspect that the newfound ecological concern of industrialized countries is merely the latest chapter in a long history of imperialism. This conviction is reinforced when environmentalists assert that China should not develop its coal resources, that Kenya must protect the rhino, or that tropical countries must stop destroying "our" rainforests (Clark 1993). The principle of nonintervention is increasingly applied to nonstate actors as well, including foreign media and NGOs. The Brazilian government, for instance, has complained that foreign television broadcasts on tropical deforestation are part of "an orchestrated campaign for the internationalization of the Amazon" (Brooke 1989; Wood, Demko, and Mofson 1989:17). In a similar case, Greenpeace mailed letters to thousands of East Germans in 1989 alerting them to their government's environmental secrecy. In response, the government accused Greenpeace of violating its national sovereignty (Wood, Demko, and Mofson 1989:33). Not surprisingly, governments in developing countries often claim that the activities of foreign-based NGOs violate their sovereignty, particularly when their environmental work is tied to human rights advocacy (Johnston 1994).

Proposed debt-for-nature swaps have also been criticized as eco-imperialist, just as the compulsion of debt-ridden countries to plunder their natural resources in order to earn hard currency may be interpreted as an indirect form of foreign intervention. In both of these situations, the meaning of nonintervention is highly contentious. Thus, developing countries have declared that sovereignty includes "the right of states to use their own natural resources in keeping with their own developmental and environmental objectives and priorities" (Hurrell and Kingsbury 1992:44). This statement simultaneously asserts the right to nonintervention by foreign powers and the right to domestic control. But it is a statement about rights, not capabilities. Even if states have the will to work toward sustainability, for example, they may lack the ability to internalize environmental costs by altering the tax structure or by intervening otherwise in markets. Ileana Porras (1994:33), voicing the frustration of developing countries over their lack of control, argues that, "Before they can let go of the 'rights' implied by sovereignty, developing countries will have to feel like equal players, able to influence and assent to the rules, rather than the receivers of dictates from stronger players."

As Robert Jackson (1990) demonstrates, the schism between sovereignty as principle and practice is nowhere greater than in the Third World. His provocative notion of "quasi states" rests upon the distinction between "negative" sovereignty as constitutional independence and "positive" sovereignty as the capacity to act. This distinction has far-reaching implications for environmental practices. A quasi state may agree to a treaty or establish an environmental agency, for instance, but that says nothing about its ability to monitor and enforce environmental standards. Many "sovereign" Third World states even lack sufficient funds to send delegates to international treaty negotiations. Thus, a formalistic understanding of sovereignty as constitutional independence offers little insight into the environment-sovereignty nexus in the Third World; a pragmatic conceptualization that focuses on rights, responsibilities, and the positive capacity to act is far more illuminating.

Jackson's (1990) study provides a useful backdrop for understanding the issues surrounding the international export of hazardous wastes. The flip side of eco-imperialism may be "toxic colonialism," the label used by developing countries during negotiations for the 1989 Basel Convention, which placed weak procedural

restrictions on the export of toxic wastes from industrialized to developing countries.[3] Although the primary exporters of the waste were the European Community countries (primarily to Africa), the strongest opponent of strict regulations was the United States, which disposes of most of its waste domestically. The rationale for the U.S. position was primarily ideological: regulations would violate the principle of free trade. The African states, many of which presumably had the greatest economic need for the hard currency to be gained by accepting waste shipments, found the Basel Convention's informed consent regime to be too weak. Instead, they objected on sovereignty grounds to *any* imports of hazardous waste and independently negotiated a much stronger treaty, the Bamako Convention, which branded the transport and disposal of foreign hazardous waste in Africa "a crime" (Birnie 1992:82).

The very fact that the African states called for such a treaty underscores their inability to control what passes across their borders effectively. Lacking the "positive sovereignty" to enforce their legal sovereignty, they are compelled to call upon international law to do so. Similarly, the developing countries have established a cooperative program called Dump Watch to "facilitate wide dissemination of information on the activities of, and clandestine routes traversed by, merchants of toxic and other hazardous wastes" (Ninth Conference of Heads of States 1990:82). In short, international environmental law can be a tool for building state capacity in the developing countries, and weak states can actually seek to strengthen their sovereignty in this sense through collective action.

Economic and political development is increasingly seen as vital to the ability of states to translate international obligations into coherent and effective domestic policy reforms (Hurrell and Kingsbury 1992). Thus, many new institutions intended to build state capacity in the developing countries—including the technology transfer funds for the ozone, climate change, and biodiversity agreements—have been established in recent years. The Global Environment Facility, established in 1990 under the joint management of the World Bank, United Nations Development Program, and United Nations Environment Program, is the most likely institutional umbrella for future environmental trust funds (Reed 1991; Hunter and Udall 1994). As discussed above, however, developing countries believe that their autonomy is violated by the "green conditionality" being attached to economic assistance and stabilization agreements. Institutions like the Global Environment Facility, therefore, reconfigure sovereignty by simultaneously constraining autonomy, enhancing some dimensions of state control, and undercutting others.

"Pay-for-conservation" arrangements—including technology transfer, debt relief, and direct compensation—offer an innovative detour around the sovereignty roadblock. Developing countries raise a fair objection when they point out that the industrialized world, after having modernized with little regard for ecological integrity, has no right to dictate the terms of development to the rest of the world—which might not be able to afford those terms in any case! As Jomo Kenyatta, the founder of modern Kenya, is reported to have declared in 1961, if African wildlife is truly a global resource, "the world could pay for it" (Stone 1993:40). Indeed, the world has begun to pay for "global" resources, or at least recognize its

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[3]The ability of developing countries to control environmental processes within their own borders, we should note, is already compromised by the movement of toxic industries to "pollution havens," or developing countries with lenient environmental laws. Even though these countries have the legal right to upgrade their environmental standards (formal sovereignty), they may be reluctant to do so for fear of losing the jobs and export revenue associated with the industries (Pearson 1987; LaDou 1991).

obligation to do so, in the regimes governing ozone, climate change, and biodiversity, and under certain private initiatives. Consider a program by Merck, the world's largest pharmaceutical company, to pay the National Institute of Biodiversity in Costa Rica for its conservation efforts in exchange for access to potential medicinal species in that country. Paradoxically, protecting a common resource in this case entails a recognition that not all countries have an equal claim to it. In exchange for protecting a resource for the common good, states and local communities that harbor biological diversity are entitled to compensation (Posey 1991; French 1992:19). The impact on sovereignty is paradoxical as well: on the one hand, it may be strengthened through a greater ability to control internal resources; on the other hand, autonomy is weakened and, in the long run, control may migrate to those who pay for the conservation.

Moreover, payment for conservation can subsidize undesirable objectives when states use conservation as a subterfuge to promote preexisting statist agendas. As Nancy Peluso (1993:47) argues:

> The state's mandate to defend threatened resources and its monopolization of legitimate violence combine to facilitate state apparatus-building and social control. "Legitimate" violence in the name of resource control also helps states control people, especially recalcitrant regional groups, marginal groups, or minority groups who challenge the state's authority. . . . The environmental community, perhaps inadvertently, justifies coercive-protective actions on the basis of moral high grounds which are difficult to dispute, such as the preservation of the world's biological heritage or our common security.

Peluso cites the use of the state's police and military apparatus in Kenya's wildlife protection policies and Indonesia's state forestry policies as examples of coercive conservation. In resorting to such tactics, a state may sacrifice its popular legitimacy. Because genuine authority is rooted in legitimacy and not merely physical control, a coercive state may ultimately corrode its own authority. As Jackson (1990:154) observes, this situation characterizes quasi states, in which "the warfare characteristic of negative sovereignty is internal and not international." In short, environmental conservation may provide a pretext for internal warfare.

Like territory and nonintervention, internal sovereignty can be unbundled and its practical meaning altered in the face of ecological challenges. Conca (1994) distinguishes two dimensions of internal sovereignty, capacity and legitimacy, which in many cases are inversely related. Using the case of Brazilian sovereignty over the Amazon, he finds that even as external sovereignty is narrowed in scope by international prohibitions, state capacity may be deepened as the state increases its ability to penetrate civil society. At the same time, the state's popular legitimacy is challenged as the state finds it necessary to answer to international, rather than domestic, interests.

In some cases, the state's failure to protect its environment and natural resources stems from its inability to exercise control over powerful social and economic actors. Building on Joel Migdal's (1980) work, Jesse Ribot (1993) argues that states that are "captives" of powerful elements of society will be unable to implement environmental initiatives. Using the case of forestry practices in Senegal, Ribot (1993:39) argues that:

> Even when states express a will and have the finances to implement a given set of policies, there is no guarantee that they will be able to do so. In the "weblike" societies of many developing countries, the ability of the state to execute its will depends on how policies redistribute or limit resources and resource access. These factors are more important than the official intentions or technical abilities of the state.

This finding suggests that international institutions that seek to build state capacity in order to promote environmental objectives are most effective when they find ways to reconfigure the structure of incentives within the state appropriately. Yet, even if these tactics enhance state control, they also sound suspiciously like forms of foreign intervention. Once again, the logic of sovereignty is scrambled in the face of international environmental action.

What might we conclude about the relationship between environment and state control? Viewing state control as operating with reference to people, processes, and nature—from without and from within the state—we are first struck by the fact that *recent international responses have been in reaction to a perceived loss of control in all three areas*. The perceived loss of control engenders international cooperation, which in turn results in diminished autonomy. In many cases, state control is strengthened—whether through regulatory measures, monitoring and surveillance, or simply because environmental exigencies offer a new set of welfare concerns requiring state action. Control, then, is more a dialectical process than a definitionally fixed outcome. Loss of control in one area precipitates attempts to gain control in that area, which may then trigger a loss of control in other areas.

Legitimacy

When states lack either the will or the internal capability to solve environmental problems, whether in developing or industrialized countries, nongovernmental actors frequently strive to fill the void, very often working more effectively than the state. The claim that various interdependencies are modifying the practice and meaning of sovereignty need not entail that states be replaced by some new form of political organization. Rather, states may engage in sovereignty bargains in which some limitations on their autonomy are voluntarily accepted that may even enhance the effectiveness of their overall sovereignty. "Politics beyond the state" (Wapner 1995) can be a primary factor in forging these sovereignty bargains. Spurred by growing citizen activism in response to the expanding spatial and temporal scope of environmental degradation, environmental sovereignty bargains have proliferated. The cumulative effect of such bargains may be to alter the norms and practices of sovereignty by creating new channels of political activity and new sources of and criteria for legitimacy.

International relations theorists have traditionally sidestepped the thorny issues of legitimacy either by embracing a juridical conception of authority or by implicitly conflating authority with power. For most such scholars, legitimacy is externally derived by gaining recognition from other states or by having standing in international law (Wight 1977; Bull and Watson 1982; James 1986). This conception rests on interstate rather than state-society relations, reducing legitimacy to "the collective judgement of international society about rightful membership in the family of nations" (Wight 1977:153). Even if they fail to incorporate citizens into their conceptions of authority, these theorists recognize that sovereignty has always rested on normative grounds. From this perspective, the notion that interdependence is precipitating the displacement of sovereignty by international norms (Lyons and Mastanduno 1995) would be recast as a shift in the prevailing norms of sovereignty.

International relations theorists also have a tendency to conflate authority with either power or autonomy, as when Waltz (1979:96) identifies sovereignty as the state's ability "to decide for itself how it will cope with its problems." Even Thomson (1995), who emphasizes the analytical distinction between authority ("the claim to the exclusive right to make rules") and control ("the capability of enforcing that claim"), leaves the normative basis of that "exclusive right" indeterminate.

Thus, the distinction she tries to make becomes blurred, and authority slides over into control. Moreover, a kind of solipsism emerges here. A state's sovereignty is legitimated by the behavior or perceptions of other sovereign states. As a result, citizens are rendered invisible, and popular sovereignty becomes an irrelevant concept to the field of international relations.

Yet, citizens do influence world politics and the practice of sovereignty, a fact that the field of international relations is beginning to incorporate into its theoretical understandings. Samuel Barkin and Bruce Cronin (1994) argue that a long-standing tension has existed between state and national sovereignty, two bases for organizing world politics that rely on different legitimating principles. State sovereignty rests on the possession of the means to mobilize resources within a territorial jurisdiction; national sovereignty "stems not from boundaries but from the community of sentiment" (Barkin and Cronin 1994:111). They argue that the resurgence of nationalism since the end of the Cold War has shifted the legitimating norm of sovereignty toward the latter. Katherine Sikkink's (1993) work on human rights and principled-issue networks in Latin America suggests further that the organized moral sentiments of transnational citizen groups can lead to a reconstitution of sovereignty through the diffusion of new norms of legitimacy.

Because democracy traditionally has been about processes *within* the state, international relations theorists have tended to ignore the popular dimension of sovereignty. The task of theorizing about democracy has largely fallen to scholars of American politics and political theory, whereas students of international relations have hung their hats on a simplistic and monolithic image of sovereignty that more closely resembles Hobbes's despotic Leviathan than any contemporary notion of democracy. The question of democratic participation is generally reduced to one of self-determination; once the instrumentality of the state is established, that is the end of the question. This tack ignores the fact that the authority of the modern state rests not merely on coercion, but on legitimacy. More important, it reifies the state as the only viable form of community, relegating popular movements to the status of "prepolitical, merely social creatures" (Magnusson 1990:52).

The dramatic increase in the transnational activities of citizens' groups suggests that the time has come for international relations theorists to consider the relationship between democratic participation and sovereignty. As William Connolly (1993) argues, no a priori rationale exists for confining democratic practices to the territorial boundaries of the state. That they have been so restricted in the past has resulted from specific historical conditions that are changing under the present dynamics of globalization. Thus, some social theorists see the potential for a cosmopolitan model of democratic governance (Dunn 1992; Archibugi and Held 1995; Held 1995), a possibility that is finding its way into international relations theory (Luard 1990; Walker and Mendlovitz 1990; Falk 1995).

Ruggie (1993) suggests that the practices of international custodianship implicit in efforts to address global ecological interdependence may be producing an embryonic multiperspectival polity that, although not presently threatening to replace the existing system of rule, nonetheless stands in sharp contrast to the single-point perspective entailed in territorial exclusivity. One key component of this embryonic polity could be environmental institutions, as well as the multicentric world of the sovereignty-free actors to which Rosenau (1990) refers.

Even if they do not pose any constitutive challenge to state sovereignty, efforts to assert popular sovereignty with respect to the environment cannot be contained within the geographic or the conceptual boundaries of the state(Princen 1995). Just as the globalization of ecological problems is a corollary to the globalization of

industrial production, so too might the globalization of democratic movements, spurred on by global communication links, be a corollary to all of these processes of globalization. How are we to understand the striking growth of transnational environmental activism, except as an expression of the globalization of democratic sentiments?

As Wapner (1995:318) observes, citing Ruggie's (1993) work, the true impact of transnational environmental activism has not been grasped because NGOs have been studied in terms of "institutional substitutability." Despite the popularity of the phrase "governance without government," many scholars regard this as an oxymoron. Thus, claims about the significance of "politics beyond the state" are often dismissed because no actor is poised to replace the state system. The literatures on world civic politics (Wapner 1995, 1996), global civil society (Lipschutz 1992), global ecocultures (Dyer 1993), and postinternationalism (Rosenau 1990), however, make no such assumption. Rather, they see environmental NGOs as operating in the porous boundaries between state and society. Although NGOs may seek to change governmental policies, the principal aim of many of them is to effect change on a deeper, cultural level by altering people's conceptions of reality (Wapner 1996:50).

The avenues of influence for environmental NGOs range from spectacular media events (Brown and May 1989) and nonviolent civil disobedience (Shiva 1987), to hands-on community work (Korten 1990; Farrington and Bebbington 1993) and initiatives directed toward municipal governments (Cook 1990), states (Hays 1987), and the United Nations (Willetts 1996). Environmental NGOs create networks among themselves, but also with groups involved in human rights (Johnston 1994), development (Livernash 1992), and democratization (Jancar 1993). Moreover, their involvement in international regime formation and their role in monitoring states' compliance with environmental regimes help establish these NGOs as authoritative voices in the global arena (Susskind 1994).

That environmental NGOs pose a threat to existing patterns of authority is confirmed by the difficulties they frequently encounter in furthering their objectives. Developing countries' suspicions about the potential threat of NGOs to their sovereignty, for instance, led to a two-year struggle to minimize their participation at the 1992 Earth Summit in Rio (Willetts 1996).[4] In countries whose governments are hostile to NGOs, foreign funding for such groups has become a thorny issue. Developing countries in particular frame the issue in terms of sovereignty, sometimes prohibiting or restricting the flow of foreign funds to local NGOs. Those funds can be quite substantial. In 1989, NGOs from the North distributed about $6.4 billion to developing countries—about 12 percent of all public and private development aid (Livernash 1992). If official assistance continues to decline, the relative importance of such private aid will increase, further complicating the relationship between state and popular sovereignty. We should note, as well, that NGOs frequently refuse to accept government funds because they feel that doing so would compromise their legitimacy (Willetts 1996:6).

Transnational environmental activism may be understood as an attempt to revise the norms and practices of sovereignty by erecting new standards of legitimacy (McCormick 1989). What are those new standards? Some of the more general norms have been accepted by states in nonbinding documents. For instance, Principle 1 of the Stockholm Declaration affirms that people have "the fundamental right to . . . an

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[4] Nonetheless, *Agenda 21*, an international roadmap to sustainability and the largest document adopted at the Rio convention, involved an "unprecedented mobilization of ideas from the nongovernmental sector" and has been called "a charter for democracy" (Gardner 1992:5; Willetts 1996:76).

environment of a quality that permits a life of dignity and well-being." Once states accept such a standard in principle, environmental NGOs can legitimately press them to apply the norm in practice, engaging in what Walker (1988:93) calls "the politics of accountability." In the process, they help shift the meaning of sovereignty away from the traditional emphasis on rights and control to an emphasis on responsibilities and obligations.

At its most fundamental level, the politics of environmental accountability seeks to inculcate a sense of intergenerational responsibility at all levels of social organization, a norm that would have profound implications for state sovereignty. As Edith Brown Weiss (1989:289–291) argues, "Traditionally only areas not subject to national jurisdiction have been considered as global commons. But from the intergenerational perspective, the planet is a 'global commons' shared by all generations . . . There is a planetary trust by which we are all bound, which gives us certain rights and obligations." The modern Western view has held that human beings have supreme authority over the entire planet and all its living creatures. But, as Ian Rowlands (1995:260) observes, this view is being challenged by recent ecological disruptions, such that "political agendas and choices may, to some extent, be falling under the control of natural systems." All of this raises the question of whether the present structures of world politics and assumptions about human authority are adequate to the task of protecting the environment, a question that is at the root of our attempt to come to grips with the environment-sovereignty nexus.

The mechanisms through which global environmental responses are precipitating new patterns of legitimation include not only the sorts of legal and moral mechanisms discussed above, such as international regimes and the dissemination of an ecological sensibility. They also include scientific means. Indeed, most environmental problems would not be on the political agenda, international or otherwise, were it not for the efforts of scientists. Moreover, because of the long-term nature of many environmental problems, science has become a primary source of an intergenerational perspective. Consider the wide range of issues for which scientists have played a key role in placing on the agenda, modeling long-term implications, and promoting policy solutions: biodiversity (Wilson 1988), whaling (Mitchell forthcoming), ozone (Litfin 1994), climate change (Nitze 1990), and acid rain (Wynne 1987). Science, in short, has become an important source of legitimacy in global environmental politics.

What is the relationship between scientific authority and the authority of the state? In the age of Big Science, which saw the marriage of science to national security, the two sources of authority were generally seen as mutually reinforcing (Bush 1945; Gilpin and Wright 1964; Price 1965). But contemporary science may be more autonomous, and its authority may even be in conflict with that of the state (Dickson 1984; Dietz and Rycroft 1987). Some scholars see transnational "epistemic communities" of scientific and technical experts as a primary force in forging international environmental regimes because of their ability to shape states' perceived interests (Haas 1989, 1992). Others argue that world politics as a whole is becoming more science driven. Rosenau (1990:421–422), for instance, regards scientists as among the key "sovereignty-free" actors. He links the rise of science as a source of authority in postinternationalist world politics to a nascent "global culture."

Yet, we should be wary of promoting science as a universalistic source of authority on the brink of replacing state authority. Scientific opinion on most environmental issues is not uniform (Jasanoff 1993), and states frequently interpret scientific information in ways that bolster their own preconceived interests (Litfin

1994). Moreover, scientists themselves are vulnerable to their own biases, such that "knowledge" may unconsciously reflect certain interests (Benveniste 1977; Nelkin 1984). The controversy surrounding the measurement of greenhouse gas emissions, in which researchers in India challenged the validity of estimates published by World Resources Institute, a U.S.-based NGO, provides a case in point (World Resources Institute 1990; Aggarwal and Narain 1991; Ahuja 1992). Nonetheless, although the temptation to overestimate the power of science should be avoided, the politics of science that pervades global environmental responses is engendering new norms of legitimation and relations of authority beyond state-based politics, a development that has implications for the reconfiguring of sovereignty.

In sum, international environmental responses appear to be generating alternative sources of legitimation, primarily through transnational activism and the politics of science, that, although not necessarily on the verge of replacing the state, do present serious challenges to the traditional authority of states.

The Greening of Sovereignty?

Although international relations theorists typically regard sovereignty as solely an attribute of states, its etymological roots ("supreme rule") suggest the potential for a wider meaning. Historically, the institution of sovereignty originated in medieval Europe as an attribute of God and His delegate in Rome. Beginning in the Absolutist period, this divine authority devolved, first to monarchs and subsequently to the bureaucratic, territorial, and more or less democratic states associated with modernity (Morgan 1988). In its modern incarnation, sovereignty is essentially concerned with dividing inside from outside, with states exercising authority, autonomy, and control over that which transpires within them. This formulation suggests that no fully sovereign states exist today, if they ever did. In a sense, environmental concerns merely present further challenges to such a notion of sovereignty. In another sense, however, if sovereignty presumes territorial divisibility, then the recognition of the indivisibility of the environment seems to undercut any notions of absolute control, independent decision making, or exclusive authority. But a challenge to existing practices does not require their disappearance; sovereignty has proven itself to be a durable institution, capable of mutating to survive in diverse cultural and economic settings over the centuries. Just as the absolutist sovereignty of seventeenth-century Europe differed greatly from later liberal notions and practices, the social and economic transformations of the late twentieth century—and in particular their ecological reverberations—may reconfigure the contemporary meaning of sovereignty rather than destroy sovereignty as an institution.

The dominant tendency in international relations is to pit sovereignty against the environment, seeing it as an obstacle to ecological integrity and viewing efforts to respond to environmental harm as making chinks in sovereignty's enormous armor. Given the many ways in which environmental responses challenge state autonomy, control, and authority, good reasons exist to endorse this view. Yet, states can also use their authority and their bureaucratic apparatus to promote environmental values; indeed, this is exactly what the politics of accountability requires of them. Is it possible, then, that, rather than an outright erosion of sovereignty, we are witnessing a major shift in the norms of sovereignty with respect to the treatment of nature?

In international law, the state's absolute sovereignty over the environment within its territory, enunciated in the nineteenth century, has evolved by the late twentieth century into "restricted sovereignty," which incorporates the general principle of "good neighborliness" (Wapner 1996). The famous Principle 21 of the

1972 Stockholm Declaration articulates this tension between the state's sovereign right to exploit its own resources and its responsibility not to harm the environment beyond its borders. The "rights" side of the equation, however, is much easier to understand and practice than the "responsibilities" side.

The international community has devised numerous mechanisms, most notably liability and regulatory regimes, in an attempt to institutionalize global responsibility. As Francisco Vicuna (1992) observes, the international law of state responsibility assumed in the past that "an unhappy event" between two states had already taken place. Now, however, international law is evolving such that it incorporates the obligation to prevent such events. The scope of these obligations, moreover, has become global rather than bilateral. The Hague Declaration, signed in 1989 by seventeen heads of state, contains an even more radical proposal for a new international environmental institution empowered to regulate and impose sanctions even without the consent of states (Centre for Our Common Future 1989; Susskind 1994:107–109). Still other proposals involve United Nations reform (Imber 1994).

Yet, as Wapner (1996) argues, the greening of sovereignty could also proceed in more discrete ways—for instance, by involving transnational NGOs to a greater extent in regime formation, implementation, and compliance. Expanding the role of NGOs is one of the key recommendations of the Salzburg Initiative, a 1990 proposal by an international assembly of diplomats, scientists, and environmental activists aimed at strengthening international environmental governance (Susskind 1994:122–149). Other ways to assign responsibility include product labeling schemes, some of which are already in place (Environmental Protection Agency 1993), that would encourage responsible consumption by disclosing the true environmental cost of consumer goods (Wapner 1996). In particular, such programs could foster a greater sense of responsibility in the industrialized world by revealing the extent to which consumption patterns there are made possible by the "shadow ecologies" of developing countries (MacNeill, Winsemius, and Yakushiji 1991). Peter Brown (1996) argues that the principle of "transparent sovereignty," used in trade agreements to compel states to reveal actions that could violate the requirements of free trade, could be usefully applied to environmental issues. All of these proposals would tend to scramble the process of environmental diplomacy across state-society lines and across national borders, contributing to the deterritorialization of environmental politics.

The activities of transnational environmental actors—particularly NGOs and scientists—are creating new forms of governance and authority. Although no new institution stands poised to replace the state, these activities may nonetheless be modifying the character of sovereignty. Certainly neither the Westphalian system of rights and responsibilities nor its liberal successors was particularly sensitive to the notion of ecological responsibilities. Nature, as a source of resources and a sink for pollutants, was assumed to be bounteous—almost infinitely so. Today's emergent discourses of sustainability betoken a growing awareness of nature's limits, compelling sovereign actors to accept a sense of ecological accountability. The traditional goals of the modern state—"to defend borders and to promote industrial development" (Princen, Finger, and Manno 1995:50)—are arguably in friction with the quest for ecological integrity. But no a priori reason exists for saying that environmental protection cannot become one of the state's primary objectives, and there is evidence that it is doing just that. This trend is consistent with the growing awareness that sovereignty is not a static organizing principle but rather a historical institution whose norms and practices have changed significantly over time. Just as states accepted responsibility for the violent actions of

their citizens in the nineteenth century, leading to the virtual elimination of piracy and mercenarism (Thomson 1994), so too are states today beginning to take responsibility for ecologically harmful activities that emanate from their territories. If environmental action generates new notions of responsibility and thereby leads to meaningful shifts in patterns of authority, then the practices associated with sovereignty are being revised.

Onuf (1991) discusses an additional dimension of sovereignty that has not been raised here but is relevant to intergenerational sources of authority and the greening of sovereignty. Onuf argues that "majestas," or that which commands a sense of majesty or awe, has always been an important attribute of the sovereign. It is essentially a collective sentiment mapped onto the source of political authority—a sentiment that is rooted in the sense that political rulership derives its authenticity from its closeness to the divine or some object of reverence. Daniel Deudney (1993; forthcoming) suggests that "planetary topophilia," or the sense of deep affinity with and hence responsibility for the Earth, offers such a unifying sentiment that could substantially revise our understandings of sovereignty. Although states need not disappear, an "intergenerational public" at the level of collective subjectivity could replace the state as the chief sovereign subject in world politics. Although Deudney's view may seem utopian at first glance, the reconfiguration of sovereignty outlined in this essay review is certainly consistent with it and may even represent the first steps toward the establishment of an intergenerational public sovereign. In any case, building an ecologically sustainable world order will inevitably entail the greening of sovereignty, whatever form that may take.

Directions for Future Research

The intersection of environment and sovereignty offers a plethora of potentially rich research opportunities. One key to unlocking that potential is conceptual disaggregation. Taken as a unitary concept, sovereignty is not particularly useful theoretically because it is too easily reduced to either a rhetorical tool or a monolithic reification. Taken as a cluster of practices undergoing multiple processes of unbundling, contestation, and reconfiguration, it offers greater heuristic value. Although sovereignty has been disaggregated into autonomy, control, and legitimacy for the purposes of this essay review, other possibilities exist.

However the term is disaggregated, the notion of sovereignty bargains can be usefully applied in a wide range of future research projects. The concept is likely to be particularly salient for those focusing on international environmental institutions because these typically represent trade-offs among sovereignty's multiple dimensions. One avenue of inquiry is the extent to which sovereignty bargains are structured differently for different states. The research reviewed here suggests that significant differences may exist in the character of environmental sovereignty bargains between industrialized and developing countries. Developing countries may find their autonomy and certain elements of control and internal legitimacy diminished by their participation in international environmental regimes, whereas capabilities and external legitimacy may be promoted. Conversely, industrialized countries may find their autonomy diminished by the expectation that they should pay for conservation in developing countries, even as their external legitimacy may be increased by such trends. Instruments like the Global Environmental Facility and the Multilateral Ozone Fund provide a possible arena for exploring these trade-offs.

A similar course of investigation, and one of potential interest to students of comparative politics as well as international relations, is whether states with substantial populations of indigenous peoples face distinctive challenges to their

sovereignty. The impact of the internationalization of domestic politics through the ecocultural struggles of indigenous peoples, in part through their alliances with transnational NGOs, offers an opportunity to explore the largely unexamined links between environmental and human rights problems. The recent suit filed in a New York court by indigenous peoples in Ecuador, for instance, may be a precedent for a new sort of sovereignty challenge. The suit, filed in New York because it is the site of Texaco's corporate headquarters, asks the court to find the oil company guilty of violating international law. Given the frequent clash of interests between indigenous peoples and multinational corporations, along with the trend in some industrialized countries toward applying domestic environmental law beyond their borders, such legal suits could become more common, seriously scrambling the traditional logic of sovereignty.

Another avenue for research is to seek to determine whether the nature of an environmental problem—for example, whether it involves commons or transboundary resources—shapes the resulting sovereignty bargains. Although preliminary evidence from the literature suggests that the nature of the issue does make a difference, more work needs to be done in this area. Moreover, this line of research could productively lead to a more policy-oriented exploration of alternative proposals for the "greening" of sovereignty. Stone (1993) has made an initial foray in this direction with his proposal to establish a system of "guardians," similar to those found in many legal systems. These guardians would be the legal representatives of international environmental concerns. Although the idea sounds farfetched at first, Stone (1993:83–88) notes that a number of states have already recognized many guardianship functions in their domestic environmental law. Because of the prevailing norms of sovereignty, however, such a proposal would probably be much more acceptable for global commons issues. A multidimensional approach to sovereignty, applied to a variegated understanding of environmental problems, could contribute to efforts to map other such proposals.

Still another direction for research involves whether responses to international environmental actions are resulting in linear trends with respect to any of the constituent elements of sovereignty. Although notions like autonomy, control, and especially legitimacy do not lend themselves to easy operationalization, an effort to explore such trends should not be dismissed out of hand. The literature reviewed here suggests that, at least with respect to autonomy, such a linear trend does exist. The very nature of international environmental problems precludes, or at least severely hampers, the ability of states to make decisions or act autonomously. The plethora of international environmental agreements negotiated over the past two decades suggests that the autonomy of states has been significantly and increasingly reduced.

A fruitful research agenda could also emerge through the exploration of the impact of institutional mechanisms on the norms of sovereignty. The transition from soft law to new norms, which has become commonplace in international environmental politics, remains poorly understood. Clearly what is at issue is how new international norms evolve, a process that has begun to claim the attention of some international relations scholars (Barkin and Cronin 1994; Florini 1996; Modelski 1996). This research could be usefully supplemented with the insights of social constructivists and poststructuralists. Digging deeper into the new sources of authority and legitimacy that are modifying the meaning and practices of sovereignty, one might investigate possible historical antecedents, or looking through the more critical lens of poststructuralism, one might ask whose voices and which discursive practices are legitimated by the greening of sovereignty. In other words, how do new configurations of sovereignty erect new regimes of truth and new

constellations of power and knowledge? The discourse of global environmental management, for instance, may participate in the reconfiguration of sovereignty even as it erects new modes of domination (Litfin forthcoming).

Related research could explore the impact of compliance mechanisms, which have received far less attention than regime formation, on the norms of territorial exclusivity and nonintervention. A separate but related set of issues involves the effect of domestic implementation of international environmental agreements on the norms of sovereignty. Of particular interest is likely to be the role of nonstate actors, especially NGOs, on altering the norms of sovereignty through their ability to monitor compliance and implementation.

The research reviewed here suggests that the changing patterns of authority engendered by the environmental activities of nonstate actors are likely, in the long run, to provoke the most dramatic changes in the evolving norms of sovereignty. One controversy in the existing literature that deserves further attention is whether the relationship between NGOs and states is conflictual or mutually reinforcing. A related question involves the extent to which the science-driven nature of international environmental problems challenges state authority, or perhaps bolsters the authority of certain states. Focused case studies could begin to answer both questions.

A more policy-oriented research agenda could explore creative proposals designed to encourage the greening of sovereignty. Some proposals along these lines have already been advanced, among them The Hague Declaration, calls for United Nations reform, and international ecolabeling schemes. An effective ecolabeling program, for instance, would reveal the environmental effects of producing a good in much the same way as food-labeling enables consumers to know the nutritional contents of their food (Wapner 1996). This would have the effect of thinning the veil of sovereignty behind which states engage in (or permit industry to engage in) environmentally deleterious practices. Such proposals could prescribe methods through which sovereignty could be made more transparent and means by which an ethos of intergenerational responsibility could be institutionalized.

Although the greening of sovereignty, which this review suggests is already under way, is likely to occur incrementally, a long-term outlook can facilitate its development. As environmental concerns insert themselves increasingly into the world politics of the twenty-first century, and as the political and economic effects of such developments as massive species extinction, climate change, and the globalization of Western modes of consumption become increasingly inescapable, sovereignty will be reconfigured in ways that cannot be fully anticipated today.

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