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Social Constructivism, International Relations Theory, and Ecology

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The above title announces a potentially quixotic attempt to follow Laferrière and Stoett's (1999) heuristic suggestion to extend its seminal review of the ecological implications of realist, liberal, and critical international relations (IR) theories to other variants of thought. Social constructivism has ensconced itself in the study of international relations as a challenge – in which ecological thought participates – to the utilitarian premises of neo-realism and neoliberalism. However, its metatheoretical critique of the rationalist-materialist logic of these approaches has yet to be distilled into substantive IR theoretical assumptions, propositions, and hypotheses, and its axiomatic focus on the social embeddedness of natural-object meanings, rather than on nature's contextualization of social constructs, does not make constructivism a likely candidate theory of the IR-ecology nexus.

Yet constructivists have already ventured into the relationship between global environmental degradation and change in the IR system (Ruggie 1993; Litfin 1997, 1998a; Wendt 1999). This *problématique* informs the present chapter's conceptual synthesis of elements of an approach to IR-ecology interaction originating in structurationist variants of constructivism that are derived from pragmatist and naturalist thought traditions (e.g., Mead 1934; Blumer 1969; Giddens 1979; Weigert 1997). As the first section suggests, "ecopolitical" IR thinking (Laferrière and Stoett 1999: 5) derives value from constructivism's explication of the pragmatic and discursive dimensions of emergent knowledge of global "ecological crisis" and crises. It then proposes a metaphorical "communication" cycle that comprises the following: IR social constructs "talking to" nature via *material* impact; natural resistance "talking back" to these constructs; and contested discourse "talking about" this resistance and thereby giving it *social* meaning.

This metaphor informs the second section's analysis of anarchy's ecological ramifications in relation to international "common pool resource" issues (CPR, an apt acronym in light of growing ecological catastrophes). An

"eco-Lockean" cycle featuring competitive rivals, those who construct resource-access parameters in CPR terms if excluding users is impractical, may become "eco-Hobbesian" if this knowledge leads to degradation of resource *stock*. The third section suggests that this degradation may worsen if the institutional context impedes realization of a symmetric "common fate"; otherwise, an "eco-Kantian" cycle may instantiate itself in a regime promoting stock restoration and reinforcing states' ecological identities. Wendt's (1999) state-centric concept of transformation to Kantian anarchy is treated as a proxy for contested practices (i.e., science, crisis symbolization, direct action, aid, etc.), especially transnational environmentalism, which shift legitimating criteria from territorial rights to external responsibility. This section also qualifies constructivism's progressivist bias on the question of change by considering the effect on the emergence of the eco-Kantian cycle of NGOs' co-optability into state projects. The conclusion indicates directions for future research.

Constructivism and the IR-Ecology Nexus

IR social constructivism rose to prominence on its challenge to neorealist and neoliberal ontologies (Onuf 1989; Wendt 1992, 1995; Kowert 1998; Price and Reus-Smit 1998). Yet its critique never crystallized into precise assumptions, propositions, and hypotheses belonging to an alternative IR theory of the dynamic effects of ideational (not only material) structures on state identities and interests as well as behaviour (Ruggie 1998; Jørgensen 2001; Onuf 2001). Emphasis on the significance of social factors in change bodes poorly for a constructivism-informed, ecologically reflective IR theory. Sociology has been charged (Cassell 1993; Murphy 1995; Gottschalk 2001) with exhibiting tendencies to gloss over the issue of "ecological crisis" by assuming that humans face few natural limits on their social productions or that environment can be reduced to myriad discursive meanings.

This criticism in fact reflects sociology's own crisis of consciousness. The latter, signalling the advent of "reflexively modern" postindustrial "risk society" (Beck 1994), effaces the Cartesian subject-object distinction and recognizes a successive eclipsing of traditional perceptions of nature – earlier as an incalculable external "hazard" and later in terms of modern notions of insurable "external risks" – by hyper-awareness of modernity's "manufactured risks" (Giddens and Pierson 1998). "Environmental security" concerns (see the critiques in Barnett 2001 and in Chapter 1, this volume) have arisen within an "ecological crisis" discourse that connotes intersubjective understanding of the implication of knowledgeable practices in altering the physical world, as well as inculcation of an "existential survival instinct" associated with increasingly uncertain risks posed by these changes (Beck 1994; Giddens and Pierson 1998).

IR constructivism challenges the deterministic materialism of neorealism and differentiates Durkheimian "social facts" from those of "brute" nature or individuals' "subjective" perception (Ruggie 1998). It would appear to render natural properties of international relations as inert matter that can be converted by rules into exploitable resources for institutional (re)production (Onuf 1989, 1998). Yet, in hewing to structurationism (Giddens 1979), "scientizing" IR constructivism (Pettman 2000) also opposes poststructuralism. While Onuf's (1989) pioneering of constructivism's IR usage was more linguistically oriented than Wendt's (1992), both endeavours purportedly offer a *via media* between rationalist and poststructuralist perspectives (Adler 1997; Wendt 2000) that also views practice as the medium through which agency and social structure (embodying its material elements) are co-constituted (Wendt 1992, 1995; Price and Reus-Smit 1998).

Naturalism's acknowledgment of independent physical reality (Weigert 1997) underscores ecology's influence on constructivism. Even if inter-subjective knowledge gives the physical world its relevant meaning, biology predisposes humans to draw on rules to shape material conditions and on "practical consciousness" to monitor material resistance to social constructs (cf. Onuf 1989; Adler 1997). According to Wendt (1999), humans' predominantly ideational world is the context within which their "material reproduction requirements" comprise a "rump" natural reality. International politics is analogous. Anarchy is the mutable supervening culture, and, although *type, role, and collective* identities emerge through symbolic interaction, *corporate* identity and "objective" interests are to be reified as given essential selves that are exogenous to the states system (194: "states are people too"). If states have observable effects traceable to "real" structural properties (216), then scientific realism is squared with neorealism but not with structurationist logic of agent-structure co-constitution (244).

Juxtaposing naturalism and constructivism is problematic. Arguably, it violates both naturalist premises that the social and natural belong to the same "real" world *and* constructivist assumptions that social reality is not causally explicable (Kratochwil 2000; Smith 2000). Wendt's (1999: 212) reification of the state and anarchy contradicts symbolic interactionist tenets of identity formation and reveals a methodologically individualist and idealist constructivism (Palan 2000). If a prevalent tendency is to align with either agentic or structuralist resolutions of the agent-structure problem (Pettman 2000), then this reification inconsistently combines Wendt's structurationist view of state-anarchy relations with a structuralist notion of state-citizen relations (cf. Smith 2000). Moreover, exogenizing corporate identity obviates inquiry into domestic-level sources of agentic and structural change (Price and Reus-Smit 1998) that would presumably not preclude non-state actors and movements.

This work's *partial* denaturalizing of state and anarchy does make a crucial point relevant to ecology. Anarchic "culture" is Hobbesian (based on relations of enmity), Lockean (rivalry), or Kantian (friendship). Subverting the rationalist delineation of power and interests as "idea-free baselines against which the role of ideas can be judged" (Wendt, cited in Kratochwil 2000: 77) is consistent with constructivism's problematizing of anarchy. But even if states are not natural, their less malleable "corporate" identities entail "objective" interests in physical survival, economic wellbeing, autonomy, and collective self-esteem, predisposing them, due to resource scarcity, toward "egoistic interpretations" of these interests (Wendt 1999: 241). International politics is Lockean: "It is easier to escape a Hobbesian world, whose culture matters relatively little, and harder to create a Kantian one based on deeply shared beliefs" (Wendt, cited in Kratochwil 2000: 85).

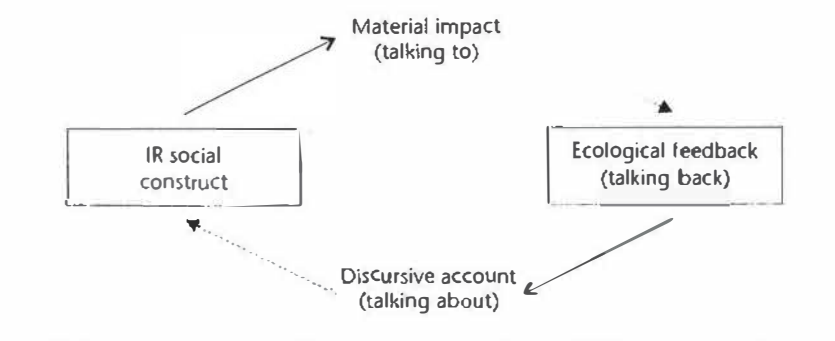
Constructivists avoid naturalizing *Lockean* anarchy. Their focus on changes in anarchy can even take on a progressivist hue (see constructivism's respective linkages by Ruggie [1998] and Wendt [1995] to idealism and neoliberal institutionalism). Although Wendt ascribes intrinsic motivating force to security, welfare, and autonomy, their *content* is argued to be historically contingent: accurate realization of "subjective" interests – that is, beliefs on how to meet "objective" ones – is needed to reproduce corporate identity (1999: 231-32). State organizations reflexively monitor this alignment of interests (Cassell 1993). Transboundary environmental "bads" can prompt "unbundling" of sovereignty (Ruggie 1993; Litfin 1997, 1998a). Strain on "ecological carrying capacity" from capitalist states' "growth imperative" may stimulate a "different articulation" of economic well-being that reconfigures the content of corporate identity (Wendt 1999: 236; see also Litfin 2000a).

"Articulation" emphasizes the identity- and norm-generating potential of *discourse* and communicative interaction. Habermasian approaches stress the efficacy of speech acts and persuasive argumentation (Kratochwil 1989; Onuf 1989, 2001; Risse 2000; Payne 2001), while Foucauldian discourse analysis treats consensual knowledge as power relations that establish parameters of sanctioned discourse (Litfin 1994; Smith 1995; Sullivan 2001; Allan 2002). That Wendt's (1992) actors signal *through* their behaviour rather than speak *about* it (Zehfuss 2001: 69-70) suggests a disciplining of constructivism's discourse on discourse, except for the author's later corrective aversion to deducing primordial anarchy from a non-verbal "first encounter" (Kratochwil 2000: 76). Wendt's (1999: 346-47) human agents are allowed to engage in "'ideological labor' – talk, discussion, education, myth-making, and so on" – to create shared knowledge of interdependence and to elicit the trust needed to avoid collective action dilemmas.

Language is pivotal in accounting for the interaction between changes in ecosystems and those of the state system. Constructivism contributes to

Figure 7.1

IR-ecology "communication" cycle



recognizing how ontologically emergent shifts in the meaning of physical objects contribute to change *per se* (see Adler 1997). For Onuf (2001: 245), "language makes the objective world intersubjectively available, and disciplined inquiry can make intersubjective understanding more reliable." "Ecological crisis" – the symbolic interactionist strand of Wendt's thinking suggests that nature "talks back" to human conceptions of it (Blumer 1969: 22) – is comprehended in that discursive container. Crises of "reflexive modernization" seem to emblemize junctures where "practical consciousness" yields to "discursive consciousness" (see Giddens 1979) in the context of political contestation over the definition of "anomalies" or "significant threats from expected empirical patterns underlying contemporary society" (Weigert 1997: 57), which indicate unusual levels of natural resistance.

The preceding discussion of ecological crisis suggests a synthesis of constructivist thinking on the IR-ecology nexus. It features a "communication" cycle (see Figure 7.1), akin to an "environmental degradation curve," which may or may not stimulate learning of the degree to which humans exist in a "closed world" (Murphy 1995). For analytical convenience, the cycle is depicted as running clockwise from "IR social construct." Onuf's (1989, 1998) account of how linguistically rooted rules convert the material world into exploitable resources for reproducing social structure also has metaphorical merit: the *material* impact of social constructs "talks to" natural reality. The "talking back" of ecosystemic resistance necessarily registers as a *social* input into reflexive "practical consciousness," but, if anomalously high, into collectively contested "discursive consciousness" (a "talking about") of the IR-ecology nexus itself, which in turn forms a juncture at which state-agent practices and, in turn, identities and anarchy may undergo transformation. The dashed arrow symbolizes contingent "reproduction" or "different production" of constructs (Kowert and Legro 1996: 489).

Intersubjective translations of raw data cannot be apolitical. Political outcomes involve coercion and co-optation, as in hegemonic stability theory (Keohane 1984; Snidal 1985), but also hegemons' (challengers') ability to use institutions to narrow (widen) sanctioned meanings of physical objects and thus to naturalize (delegitimize) unequal allocations of access to material resources (see Onuf 1989; Adler 1997; Kratochwil 2000). Haas' (1992) epistemic communities approach embodies constructivist concerns with the issue of whether attributing regime creation to material power or to information needs (Krasner 1983) neglects the suasive power of scientific interpretations of natural reality under uncertainty. But its largely behaviouralist perspective on expert influence fails to elucidate discursive practices by which meanings of new factual knowledge, rather than speaking for themselves, are advocated via competing narrative "framing" (Litfin 1994; Payne 2001; on environmental "advocacy coalitions," see Litfin 2000b; Blatter 2001). As social constructs are "always *for* someone and *for* some purpose" (Cox 1996a: 87), environmental issues are "struggles among contested knowledge problems," not neutral informational phenomena (Litfin 1994: 13; see also Hawkins 1993).

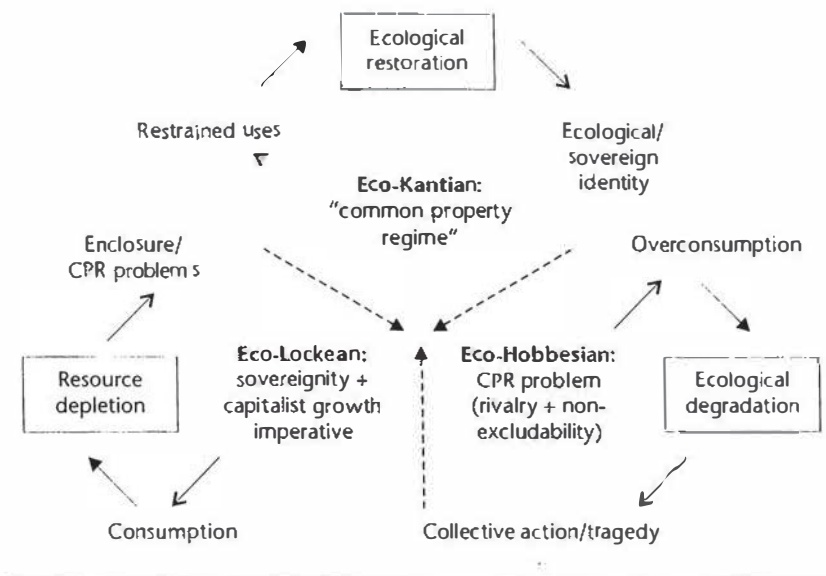
Ecological Implications of Lockean Anarchy

This section builds on Wendt's (1999) categorization of anarchic culture and its assessment of the emergence of Kantian "friendship" norms. It presents a non-linear account¹ (see Figure 7.2) eschewing tendencies by its proponents (Ruggie 1998; cf. Wendt 1999: 314) to render the constructivist view of anarchy's transformation in progressivist terms (namely, enmity → rivalry → friendship) despite the structurationist agnosticism on change (see Adler 1997: 336; Laferrière and Stoett 1999: 143). As delineated in Figure 7.2, Lockean, not Hobbesian, role structure forms the parameters in which anarchy's ecological implications, initially following an eco-Lockean subcycle, uncertainly affect its constitution (i.e., the converging dashed arrows leading from discursive accounts of ecological feedback effects in the three respective subcycles). Also, instead of conflating the eco-Hobbesian subcycle with Hobbesian anarchy per se, it is treated as a degenerative turn of the eco-Lockean one that can nonetheless reproduce itself or become reflexively implicated in a shift, discussed in the next section, to an eco-Kantian subcycle (on economic pessimism versus optimism, see Weigert 1997: 37; Homer-Dixon 1999; Allan 2002).

Conditions impeding cooperation might also limit the large-scale anthropogenic environmental degradation entailed in globalizing capitalism. Yet Bull's (1977: 47) statement that "there can be no industry, agriculture, navigation, trade or other refinements of living because the strength and invention of men is absorbed in providing security against one another" emphasizes that the existing "state of nature" is *Lockean*, not *Hobbesian*.

Figure 7.2

IR-ecology "communication" cycle complex



International *society* is constituted by the principle of sovereignty, which secures individuated states' possessions (Bull 1977; Wendt 1992). "Possessive individualism" creates Lockean anarchy's central tension between mutual self-restraint motivated by coexistence needs and mutual rivalry that generates collective action dilemmas and even limited violence, as liberalism "desocializes" states' sovereignty (see Wendt 1999: 294). This principle drives "enclosure of the globe" via private property and territorial sovereignty (see Litfin 1998b: 211), suggesting that Lockean liberalism is generative of anarchy and analogous "social totalities" (Ruggie 1986), including CPR constructs.

- A mechanistic worldview (see Ruggie 1993: 157-58; Laferrière and Stoett 1999: 3; Litfin 2000a: 128) entails the "making" of environmental degradation via modernist world affairs (see Pettman 2000: 23). Rationalists suppose that anarchy functions only as a "permissive" parameter, not also as an "efficient" cause (Waltz 1959), but IR constructivists construe the state as constitutive of capitalist accumulation and its ecological by-products. The "surplus" required by the sovereign state arguably mandates the reshaping of humans into property owners (even if only of their bodies) and of nature into land (Kuehls 1998). Moreover, the post-Second World War "embedded liberalism" consensus meant that Western governments have placed a premium on promoting growth to ensure continued economic

prosperity of their broader electorates (Ruggie 1983), with consequent increases in fossil-fuel consumption and its ramifications for climate change (Litfin 2000a: 122).

CPR issues are paradigmatic representations of the ecological impacts of Lockean anarchy's constructs. Originally confined to analysis of the usage of localized resources featuring an intractable pairing of non-excludability of users and subtractability or rivalry of use (Dietz et al. 2002), the CPR analytical construct can also inform the study of transborder environmental problems (Barkin and Shambaugh 1999). If sovereignty precludes the coercive Hobbesian social contract among states, and finite borders raise the costs of "enclosing" mobile resources that cross states' respective territorial spaces, then increasing rivalry is the most likely outcome by default.

CPR studies find "unitary-ownership" solutions to CPR problems (i.e., government control or private ownership aiming to curb rivalry and impose exclusion) to be less effective, even *domestically*, than voluntary "common property regimes" (Dietz et al. 2002). In international environmental relations, the latter construct reflects states' reflexive capacity to "unbundle" sovereignty (Litfin 1997, 1998a) in the presence of "those dimensions of collective existence that territorial rulers recognize to be irreducibly trans-territorial in character" (Ruggie 1993: 165). But the constructivist perspective also stresses that the success of common property regimes and the failure of coercion or privatization remain contingent outcomes of contested knowledge of the nexus between ecological degradation and reproduction of Lockean liberalism.

The CPR representation of international environmental problems contains an implied narrative on the unfeasibility of Leviathan-like or enclosure options. The focus here is on the latter. As figure 7.2 notes, key Lockean constructs (namely, sovereignty and the capitalist growth imperative) promote consumption, with its normal ecological impact of resource-*unit* depletion. This seems axiomatic, except that practical or discursive consciousness can favour either enclosure (which can aggravate short-term rivalry and cause an escalation of violent conflict as a second-order consequence) or intersubjective understanding that its prohibitive costs make resource use "tragically" prone to a rivalry that degeneratively undermines even resource-*stock* integrity.

Appropriation can stem from one party's recognition of asymmetric advantages in resource rivalry. Transboundary river water sharing exemplifies what Matthew (1999: 161) terms a "structural," not "pure," CPR, because it is the downstream state that suffers the "tragedy of the commons" created by *upstream*-state leveraging of its positional advantage to exclude downstreamers. UK-origin acid rain deposits in Scandinavia (Connolly 1999) and Alaskan overharvesting of Canadian-origin Pacific salmon (Sullivan 2001) seem to be similarly configured. Against accounts that treat these resources

as CPRs in spite of their asymmetrically distributed access and harm characteristics (Waterbury 2002; Weinthal 2002), others (LeMarquand 1977; Williams 1997, 2003; Homer-Dixon 1999; Haftendorn 2000) are more inclined to discern the exacerbation of rivalry in attempts at exclusion itself. Conversely, as in Latin American efforts to conserve contiguous Pacific tuna stocks within exclusive economic zones (De Sombre 1999), "pure" CPRs are less susceptible to enclosure but therefore less likely to stimulate violence than to accelerate resource-stock degradation altogether.

This discussion of resource appropriation and its consequences raises the issue of whether Lockean anarchy predisposes the eco-Lockean cycle to move in an eco-Hobbesian direction. "Water wars" (Starr 1991; Barnett 2001) suggest less peacefully resolvable "structural" CPR issues (Matthew 1999: 164).² "Recognition" of resource limits and consumption rivalry politicizes international environmental management as a CPR issue, while "knowledge" of overuse can exacerbate distributive conflict by heightening concerns over relative gains and shortened time horizons (Barkin and Shambaugh 1999: 9-11). The eco-Hobbesian curve indicates intersubjective emergence of a CPR *problem* that either stimulates overconsumption, which degrades resource-stock integrity and brings actors to the brink of violence, or fosters realization that resource collapse poses a symmetric "common fate" requiring collective aversion. But even symmetric "tragedy" may have long gestation times requiring more (contested) discursive construction of the "common fate" knowledge productive of collective action (Wendt 1999: 352), and an institutional context based on "collective security identity" (Wendt 1992: 408) may be unavailable to enable the eco-Hobbesian cycle to be reflexively implicated in a discursive shift to the more ecologically restorative Kantian cycle.

Ecological Transition to Kantian Anarchy?

This section considers the extent to which environmental "crisis" indicates an emergent knowledge of common property regimes (Dietz et al. 2002), in which ecological identities and norms of legitimating authority are based more on intergenerational responsibility than on economic growth performance (see Litfin 2000a). The account here parallels Wendt's (1999) conceptualization of international society's Kantian transformation but embeds this process in a less state-centric context in which expanding activism and "global civil society" reflect and impel greater transnational interaction and knowledge of human-environment "transverse interaction" (on the latter, see Weigert 1997; Gottschalk 2001). Yet this narrative's progressivist strain must be qualified in light of recognition that coercion or co-optation entailed in contested ecological knowledge construction can impair the legitimacy and efficacy of cognate regimes, effecting a reversion to Lockean anarchic subcycles.

This *problématique* can be assimilated into established domains of IR-theoretical inquiry. In a microcosm, it resembles IR issues stemming from ambiguities of Kantian thought, such as whether anarchic society forms an optimal "middle way" between anarchic system and world community or a pragmatic "second best" being supplanted by the latter in democratic "zones of peace" and reverting to the former elsewhere (Brown 1995). Similarly, Wendt (1999) argues that sovereignty imbues "possessive individualist" anarchists with a "rudimentary capacity for other-help," not only in terms of self-restraint but also in terms of mutual aid (293-94); however, he cautions that international collective identity is conditioned by "a cultural background in which the dominant response to changes in the environment has been egoistic" (340).

Wendt's constructivism draws on Mead's (1934) pragmatic tradition of symbolic interactionism to account for changes in the socially constructed meaning of identifiable objects. Constitution of empathy norms and formation of collective identity begin in "role-taking" (Blumer 1969: 12-13), whereby actors inculcate role identities, "role-specific understandings and expectations about self" (Wendt 1992: 397). In the interactive process of responding to others' treatment, ego learns a new identity (Wendt 1999: 327), but ego is also "alter-casting," teaching alter to adopt a preferred role (e.g., enemy, rival, or friend) by symbolizing alter "as if it already had that identity" (Wendt 1992: 421). Kantian culture is thus constituted by friendship norms and collective identity that curb violence and "free rider" impulses endemic to rivalrous anarchy.

(Ico)logically extrapolated, this culture suggests that equivalent norms and identity status can be applied to the object of "ecosystem," constructed through a process of "transverse symbolic interaction" between humans and the natural environment (Weigert 1997). Agents, like engineers taking "the attitude of physical things" into their plans (Mead 1934: 185, cited in Weigert 1997: 172), learn holistic identities by "seeing" themselves from the perspective of the "generalized environmental other" (GEO); that is, by internalizing "the systemic reactions of the natural world to individual and collective action" (Weigert 1997: 41, cited in Gottschalk 2001: 259). State agents could envisage territorially sovereign identities according to an "international custodianship" principle that requires them to balance "self-interest with their "role as the embodiment and enforcer of community norms" (Ruggie 1993: 173), such as ensuring the future integrity of environmental support systems for multiple species.

Change from Lockean to Kantian anarchic culture both reflects and parallels shifts in the subcycles outlined here. Wendt (1999: 347) posits interdependence as a key factor in collective identity formation: "Reflected appraisals have deeper and faster effects on identities" as interaction increases. IR constructivists would find even the upstream-downstream relationship,

indicating highly asymmetric interdependence, to be underdetermining of the dominant rival's social position on cooperation. While regimes restraining a weaker upstream state's water uses are fathomable in terms of downstream coercion, a stronger upstream state's less analytically straightforward regime interest might relate to its taking of a "downstream" perspective, which may be consonant with holding this position elsewhere or with learning doctrines of avoiding "appreciable harm" to other resource users and of "good neighbour" norms (LeMarquand 1977).

This trend has accompanied a shift away from "absolute territorial sovereignty." States' right to exploit resources in their territorial boundaries has been conditioned by a duty to recognize that certain "resources within one's boundaries are interconnected with environmental systems in other states" and that their use has "extraterritorial" effects (Wapner 1998: 278). One manifestation of the new knowledge is "liability regimes" for settling disputes where "individual states are to blame for damaging other states' ecosystems" (280). This articulation of "limited" sovereignty developed earlier because it was less demanding in terms of the scientific data and knowledge-constructing labour (i.e., images and discursive accounts) that are required to "grasp" (Weigert 1997: 173) offences committed against the territorial ecological integrity of neighbours.

A more critical issue arises when constructing international knowledge (re)production of situations and their solutions that involve more than single-source generators of concentrated ecological "bads." The intersubjective construction of the symmetric "tragedy" resulting either from multiple pollution sources (e.g., ozone erosion) or from the cumulative effect of innumerable economic activities (e.g., global climate change), and that of the corollary "regulatory" regimes needed to coordinate transboundary or global responsibility, are more difficult (Wapner 1998). As Wendt implies, "common fate," a second potential determinant of collective identity formation, seemingly requires less strenuous effort to symbolize in relation to threats of planetary destruction from "ozone depletion" or "nuclear war" (1999: 303, 349) than in terms of "less acute" ones such as global warming (352).

This knowledge is contested only in part because ecological thinking is incongruent with Lockean culture. Science is arguably constitutive of modern state identity (Adler 1997: 344) as well as of a mechanistic worldview that "paradoxically" enables the gathering of data useful to the questioning of modernity (Weigert 1997: 184). Yet, as Weigert notes, greening identity rests on systematically understanding environmental anomalies that, in dwarfing sensory powers of access, gain visibility only through scientific frameworks that lack "sufficient historical comparative data and adequate theoretical understanding of the earth's ecological dynamics to translate brute happenings into definitive patterns and interpretations to guide

collective action" (61). "Horizon science" politicizes environmental policy issues, making unpopular economic decisions harder to rationalize (Litfin 2000a: 130-31). General circulation models imprecisely predict climate change and tend to neglect trends outside the northern temperate zone (Hawkins 1993: 234), while real-time Earth remote sensing technology raises southern concerns about its insensitivity to the North's historical contribution to ecological degradation (cf. Litfin 1998b).

Prospects for reaching the eco-Kantian cycle hinge on the larger success of non-state practices in shifting legitimating criteria from territorial rights to external responsibility. Wendt (1999: 337), in cautioning that states' egoistic needs often submerge collective identity, delimits a non-revolutionary Kantian anarchy. Consistent with giving citizens the right to exchange ideas without obliging them to trade (Doyle 1986: 1158), the cosmopolitan law theoretically bolsters "global civil society" and participant networks of non-state actors labouring to direct state and IGO power against environmental excesses of multinational corporations. Exemplary are the North-South NGO alliances or networks (e.g., International Toxic Waste Action Network and Basel Action Network) that have pressed for enacting and implementing a toxic waste trade ban (Wapner 1998; Ford 2003), a World Bank-local activist partnership that achieved logging reform in the Philippines (Ross 1996), and NGO publicization of environmental issues that creates discursive space for "ecodissent" in repressive societies (Hawkins 1993; Weinthal 2002).

Indeed, transnational environmentalism plays a necessary role in galvanizing the construction of transboundary collective-identity constructs via communication of these issues. Acting in "advocacy coalitions" (Litfin 2000b; Blatter 2001) and networks of movement-affiliated scientists, scholars, and activists, non-state representatives attempt to construct new social meanings and beliefs affording increased moral and material leverage over state agents and corporate actors by using images to symbolize less accessible environmental processes and locating these images within action-mobilizing frames of reference (see Levesque 2001). NASA's "Big Blue Marble" photograph has long invited "deep ecological" thinking of Earthlings' interconnections (Weigert 1997); the "hole" in the ozone layer symbolizes its erosion (Litfin 1994); the "greenhouse gas effect" and the "Asian brown cloud" connote even less predictable interactive climate change processes related to "radiative forcing" (UNEP and C4 2002); and "virtual water" symbolizes the role of grain imports in propping up a Mid-East self-sufficiency discourse that masks an ongoing and possibly irreversible process of groundwater depletion (Allan 2002). These efforts reflect thinking on the "precautionary principle" (Litfin 2000a).

However, regulatory regimes based on intersubjective norms constructed through logics of "appropriateness" and "argumentation" also allow exercise

of the logic of material "consequences" (Risse 2000; Payne 2001). A recurring quandary lies in transnational environmentalism's reliance on the coercion capacities of states and IGOs to the extent of its being enlisted in ulterior projects that undermine the legitimacy of ecological practices. For example, protest flotillas have assembled in the narrow Bosphorus Straits in order to demonstrate against increased volumes of former Soviet Union-origin tanker traffic, which has been allowed "free" transit according to the 1936 Montreux Convention even though oil spills have blackened Turkey's Istanbul shoreline; however, this opposition has incurred skepticism by its association with the effort of Turkish governments, in partnership with the British Petroleum-led consortium, to build the Baku-Tbilisi-Ceyhan (BTC) oil pipeline over objections to geological, environmental, and cultural-heritage risks (Associated Press 2004; BBC News 2005; Arvedlund 2005). "Inversion" of object meaning (Weigert 1997) is a pithy metaphor for seeing "globalized commons" more critically. NGOs' employment of "mega-fauna" images to increase the exigency of preserving wilderness and "bioregions" fits into a "global managerialist paradigm," which converts environmentalism into a "scientifically ordered ideology" that privileges expert solutions and limits local input (Hawkins 1993; Laferrière and Stoett 1999: 14; Sullivan 2001; Ford 2003). This framework relegates NGOs to advising states or furnishing data collection and monitoring capabilities (Hawkins 1993; Raustiala 1997).

Northern NGO support for Third World aid can also mesh with official agendas. Northern interests enjoy a superior global market position by which to advance oft-competing goals (e.g., timber versus genetic resources) in accessing natural resource "commodities." Yet a "structural CPR" quality affords southern states "upstream" regulatory leverage over access to biodiversity's amenities (see Miller 1995: 125). Conflict over allocating the ozone layer's capacity to absorb ozone-depleting substances (ODS) that produced the 1987 Montreal Protocol, subsequent amendments, and the 1990 Multilateral Fund similarly reveal China's and India's "exploitable power to destroy," netting them commensurate regulatory derogations, aid, and technology transfers (Downie 1999), to the extent that the former country is projected to account for nearly 17 percent of the world's overall level of carbon dioxide emissions, nearly 10 percent of oil-source emissions, and over one-third of coal-source CO₂ emissions by 2020 (EIA 2004: 172-75). NGOs' pioneering of controversial "debt-for-nature" swaps (Hawkins 1993; Miller 1995; Jakobeit 1996) also reflects this counterintuitive configuration of power.

The *reductio ad absurdum* of northern-based (I)NGO work is involvement in coercive capacity building. Southern states often relinquish autonomy to international environmental institutions to reconfirm legal sovereignty and

augment internal control (Litfin 1997, 1998a), and INGO action often entrenches domestic interests responsible for ecological degradation (Weinthal 2002). Efforts to protect rainforests and wildlife have found developing states co-opting INGO resources and ideologies for military purposes (Peluso 1993; Hitt 2002). A Kantian "globalized commons" can discursively support domestic Hobbesian CPR "nationalization," depriving local stewards of their right to apply indigenous knowledge and, with the connivance of corrupt authorities, ironically creating "open-access resources" (see Dietz et al. 2002: 11) vulnerable to "tragedy." Thus, the globalized commons burden falls heaviest on southern non-state actors, impairing the eco-Kantian efficacy of transnational civil society and suggesting its need to become more "globally" representative (see Clark, Friedman, and Hochstetler 1998; Ford 2003).

Conclusion

In the vein of examining IR theory for the purpose of highlighting its ecological implications, this chapter synthesized elements of IR constructivism that could comprise a framework for analyzing the interactive nexus between state-systemic constructs and ecosystemic change. The ecological implications of anarchical society for its transformation potential and anarchy's conditioning of the discursive recognition of these implications provided the guiding focus. A metaphorical cycle of "communication" between IR social constructs and their ecological feedback effects formed the basis for a meta-account of the IR-ecology nexus described in terms of its eco-Lockean, eco-Hobbesian, and eco-Kantian subcycles. The chapter suggested that the second subcycle is a degenerative result of the first, both being linked within the overall rivalry parameters of Lockean anarchy, but that the second can, depending on the institutional context of interstate relations, reproduce itself or be reflexively implicated in a movement to the third, paralleling emergence of a larger Kantian anarchy. Finally, it emphasized the necessary role of expanding global civil society networks in helping to secure the ecologically restorative potential of the latter culture, and highlighted potential pitfalls for these groups in attempting to apply holistically informed thinking in a state-centric environment.

This schema, an inchoate effort at a conceptual synthesis of structurationist constructivist views on the relationship between state/anarchy and ecology, suggests further research on how this approach adds to critical IR theory's understanding of the interaction between transboundary ecosystemic anomalies and their intersubjective knowledge. It could be used to develop answers to certain questions. How does knowledge construction differ across anomalies and, for each one, across regions? When does international contestation produce genuinely intersubjective knowledge of the IR system-ecosystem nexus? What does this imply in terms of the scope, legitimacy,

and efficacy of activist agents and practices seeking ecological restoration? Does this knowledge ameliorate or aggravate the ecological "crisis"? The end result might be a discursively reflexive set of assumptions, propositions, and hypotheses filling the crucial theoretical lacunae left in constructivist IR endeavours without creating new hegemonic knowledge structures re-productive, *inter alia*, of ecological degradation.