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## Discussion

# Commentary: Challenges and opportunities for global environmental governance in the 21st century<sup>☆</sup>

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## ABSTRACT

The four articles in this symposium address one of the most important questions of our day: whether national and global societies can effectively and fairly address the environmental crises that face us. We need to understand how “another world” might be possible, who the key actors would be in creating it, and what the main obstacles are likely to be. New avenues for control of the negative effects of globalization are emerging, and these are important articles in moving the discussion forward on voluntary, technological, and citizen–consumer efforts to institute them. We need systematic studies of when and where citizen power is greatest and least, and what happens at the points in the middle. Social scientists’ role can be both critical and positive, providing analyses that facilitate realistic and strategic solutions that can be tried and improved.

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## 1. Introduction

The four articles in this symposium address one of the most important questions of our day: whether national and global societies can effectively and fairly address the environmental crises that face us. Modern societies, or perhaps life worth living, cannot continue without working out how we collectively address the ways we are endangering the basic support systems upon which we rely. Here, I comment on the four articles and discuss more broadly the topic of this symposium, “Global Environmental Governance: Is Another World Possible?” To get right to the question, “Is Another World Possible?”<sup>1</sup>, I would reply, “yes, and it’s quite awful.” Our goal must be to contribute to the effort to avoid the awful “other worlds,” and provide strategic advice to policymakers and other social actors (social movements and progressive firms) who would move us towards a truly more positive future.

The contributors to this symposium have produced four wide-ranging articles that address key parts of this puzzle. At the

broadest level, Joseph Huber’s article describes different types of regulatory regimes and when and where innovative ones tend to develop and be adopted. John Urry’s piece examines the “complex system of automobility” and how we get stuck in certain ways of organizing social life, due to “path dependency” and the disproportionate impact of early actors, tipping points, and historical turning points. Gert Spaargaren and Arthur Mol argue that sustainable consumption and emerging citizen–consumer based “non-state environmental authority” are increasingly important in governing in an era of globalization. And David O’Connor’s policy-oriented article weaves together biodiversity preservation and mitigation of greenhouse gas emissions, pointing to a specific proposal for reducing deforestation in developing nations. O’Connor’s article provides a case rich with details for examining whether “another world” is emerging, but also one with much difficult social terrain from which to temper naïve optimism. These are four rather *optimistic* articles and with the potentially awful future world we face, I genuinely appreciate that. In reviewing their contributions, the challenge is to avoid the tendency, too common in environmental social science today, to argue why positive change is unlikely or even impossible, without falling into simplistic cheerleading.

## 2. The diffusion of environmental innovations

Joseph Huber’s article lays out six “theses” on how and when environmental innovations will be developed and diffused across

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<sup>1</sup> “Is Another World Possible?” was the theme of the 102nd Annual Meeting of the American Sociological Association, New York City, August 2007, where earlier versions of the articles in this Symposium, as well as this commentary, were first presented [ed.].

the globe. Bypassing behavioral change's role in improving our environmental impact on the planet, Huber focuses on the role of new technologies such as clean coal and green biotechnology in creating a new societal metabolism which is greener and more "environmentally adapted as to sustain the metabolism between humans and nature..." (Huber, 2008, p. 360).

Huber's theses provide important qualifications to Ecological Modernization Theory, on when and how societies "green" from the adoption of ecological considerations in the core of their operations. Huber clarifies that ecological modernization will only occur if good regulations are established and if a national consensus exists on the desirability of environmental protection and cooperative relations between industry, the state, and civil society. In particular, NGOs need to apply pressure but be cooperatively supportive, including of transnational firms who are inclined to lead in environmental innovations, and United Nations "global governance" organizations are extremely weak and fairly useless for Huber.

Huber examines the Environmental Kuznets Curve (EKC) theory and cites the World Bank's influential 1992 World Development Report while concluding that many nations will not address environmental concerns anytime soon: "eco-innovations and best environmental practices cannot be expected to spread from advanced lead markets immediately throughout the world" (Huber, 2008, p. 360). However Huber in my opinion is overly mechanistic in applying a stage-based theory of development to World-Systems Theory's explicitly anti-stage theory. That is, he appears to accept the idea that poor nations follow through stages from pre-industrial to industrial to post-industrial. Some of us have argued that most poor nations are unlikely to advance economically due to unequal development, and therefore unlikely to adopt environmental protections, which require high levels of expendable (government and individual) income (Roberts and Grimes, 1997).

Huber argues that technological "leapfrogging" and "tunneling-through" the EKC often will not be possible because of a lack of social and economic development. Rightly, in my opinion, Huber argues that rather than debate *whether* leapfrogging and tunneling through are possible, that it would be more productive to examine the "societal preconditions of leapfrogging and tunneling-through, determining the extent and speed at which it can occur" (Huber, 2008, p. 360). On the theme of this symposium, Huber seems to be saying that only a relatively small part of the world will see environmental modernization; another, greener core (the wealthy and powerful nations of the world system) is possible, another periphery (the poor nations, roughly) is not.

### 3. Complexity and the role of small causes

John Urry's piece, "Governance, Flows, and the End of the Car System?" is centered on a crucial sociological concept, how one technological system brings with it a tremendous array of social arrangements, which are exceedingly difficult to break. For Urry, "the 'structure of auto space' forces people to orchestrate in complex and heterogeneous ways their mobilities and socialities across very significant distances... a hybrid assemblage, of humans... as well as machines, roads, buildings, signs and cultures and modes of governance..." (Urry, 2008, p. 343).

Quite provocatively, Urry begins with an apparent broadside on the type of (reductionist/materialist) probabilistic or causal analysis in which big factors are expected to have big effects. "Relatively small causes set up what seems to be a long-term pattern that has ensured the preconditions for automobility's self-expansion... social life came to be locked in to the mode of

mobility that automobility both generates and presupposes." (Urry, 2008, p. 343). Urry argues that complexity science can help us understand the disproportionate impact of small events (like the proverbial butterfly in Africa starting a devastating hurricane). The hope for "Another World" lies for Urry in complexity theory's understanding that "although there are long term irreversibilities, nothing is fixed forever" (Urry, 2008, p. 343) and that one could "put the key in the lock and make a major turning point occur" (citing Abbott, 2001).

I find this argument fascinating and original, but a very difficult one to use: while it might be useful in looking backward in time to find the formative influence on major social trends like automobility, looking forward I find it nearly impossible to apply predictively or for explanation, or for strategic thinking on how to improve the chances of a progressive social change happening. What is the "key" and how do we insert it and into which lock, and who's going to be turning it? Urry acknowledges the difficulty of this analysis: "If they occur in the 'right order', which we can probably only know in retrospect, they *could* produce a 'post-car system' (Urry, 2008, p. 343). That said, Urry's points are valuable counterbalances to those of us working on the other side of environmental sociology's continental divide between materialists/realists and postmodern, critical "idealist" approaches. Perhaps we could incorporate insights from both sides of the divide, developing a typology of situations in which different types of causal mechanisms are at work, or endeavor to understand the conditions under which relatively small causes have these world-reshaping outcomes.

On the issue of climate change (and the complete transformation of the existing automobile system required), we are all hoping for a socio-technological-political "tipping point" or turning point of the type Urry describes. Urry argues that in pointing out the 'high price to delay,' the Sir Nicholas Stern report of Fall (2006) represents "a potentially crucial change in the economic and policy landscape around the world that is calling into being a different future..." (Urry, 2008, p. 343). But I would ask for clarification on who the actors are. Who in the world, or the landscape, is calling and demanding, and who might be resisting that change and why would we expect the resistance to be weakened? Are the peaking of oil and the regulatory initiatives of the E.U. actors of roughly the same importance and nature? What are we to do with the information that actors presently "offstage" might change everything, like a handful of men flying a jumbo jet into the twin towers of automobility? Only having this slice of a wider project, these questions may be answered in his recent, related book (Urry, 2007).

Perhaps as balance to the undetermined social factors driving a shift in automobility, Urry's article dives (maybe a bit too) deeply into a long series of technologies that might transform the car system environmentally, from intelligent cars, car sharing, and car-to-grid electric hybrids. But the lack of attention to social movements as agents of change, and only attending to technologies and the (to me) unclear mechanisms of tipping points, makes Urry's article extremely unorthodox for a symposium of social scientists! In fact, much of the paper can be seen as a refutation of the work of the World Social Forum which popularized the term "Another World is Possible," and which has acted in directly fighting the existing reality.

### 4. Green consumption and the future of the state

Can green consumerism reduce society's impact on the environment? Can consumers "be regarded as key actors driving environmental change to a considerable extent... Or should [they] be regarded as relatively powerless...?" Gert Spaargaren and

Arthur Mol's "Greening Global Consumption: Redefining Politics and Authority" (Spaargaren and Mol, 2008, p. 350) approaches the issue at hand with an explicitly optimistic attention to individual consumers and their power in the globalizing world. This article raises hugely important questions of what new possibilities arise and which disappear with the intensified globalization of economies. Specifically, if corporations are increasingly footloose, can states enforce environmental laws on their own? Spaargaren and Mol argue that while the power of consumers to make a difference is increasingly cited almost as a matter of faith, it is highly under theorized sociologically. This important project deserves serious consideration.

The article lays out a series of reasons why consumers are important players in the realm of environmental reform under globalization and why we should study them. First, environmental reform is shifting to consumers, and states have not controlled consumption directly. States are losing power under global restructuring of production and the weakening ability of states to establish and enforce environmental laws of their own. By contrast, global information flows are empowering citizens and their organizations, and supranational agencies like the WTO and EU are arising and strengthening.

Spaargaren and Mol argue that modernity is changing, around a new "logic of flows" (citing Beck, 2004; and I here refer readers to their recent and very innovative edited volume on the issue in which they attempt to bring ideas from Bauman, Urry, Beck and Castells into environmental sociology). In particular, they argue that states have to shift from tending one individual place to attempting to control or benefit from rapid and unpredictable (and often international) flows. These global processes often brutalize local communities, leaving people in the role of what Castells (1996, 1997a, b) refers to as "protest identities". Citing Ulrich Beck, Spaargaren and Mol argue that states are unable to effectively govern these factors that threaten them, unless they "redefine their roles and identity as states, construct new alliances with other states and NGOs, and start building effective counter-powers against the present dominance of global market actors" (Spaargaren and Mol, 2008, p. 350).

Building on Beck's focus on the Risk Society, Spaargaren and Mol argue that in addition to focusing on fear and negative sides of modernity, that there have to be "positive logics, rooted in ... successful environmental governance and effective forms of management and control of risks" (Spaargaren and Mol, 2008, p. 350). Here they begin to attend to fair trade, eco-labeling, etc. In particular, they are interested in new ways citizens can flex their muscles internationally through these efforts, creating a new sort of "environmental authority." Buying eco-labeled products, putting together scorecards on politicians or voting on that basis, and making strong shifts in lifestyles all have the potential to bring on social change, they argue, and painting them as green delusions is too easy. Finally, national orders of this type are only legitimate if they line up with "global environmental normativity of IPCC and Kyoto, of Millennium Development Goals, and global certifications [such] as ISO14000 and FSC" (Spaargaren and Mol, 2008, p. 350).

Two contrary points need to be considered. First, there may be some value in not taking as inevitable the weakening of state power in the face of globalization. As a counterpoint to this impression, one might take Ralph Nader's argument on the lecture circuit and US Presidential campaign trail in 2000 that nation-states could simply exclude corporations from markets in nations where they did not play by national rules. In the case of the USA (with such a huge market), this seemingly radical argument might just work. Second, the recurring use of the term "modernization" may be an unnecessarily confounding and antagonizing element in Spaargaren and Mol's work. That is, use of the term implies

stages and progress, for which the original modernization theory was criticized (see e.g. Roberts and Hite, 2000). Rather, if the term "social change" or "change in regulatory regime" or "new cooperative flexible management" might avoid some of this confusion and the impulsive, critical reaction of many scholars to the implications of "modernization."

From my perspective, Spaargaren's and Mol's optimism that eco-labels such as those of the Forest Stewardship Council, Marine Stewardship Council, and Fair Trade are creating "an increasingly relevant source of power used for political purposes" is risky. Likewise with efforts—which I think are exceedingly spotty and undeveloped—to revoke the charter of renegade corporations. Business lobbies and chambers of commerce will mobilize to defeat any effort to reduce their rights and latitude to operate. Spaargaren and Mol (2008, p. 350) refer to "reflexive modernity," a point long proposed and debated by Ecological Modernization theorists, wherein "The clear separation between citizenship and 'consumership' is being blurred." In parts of Europe, this may be the case, but in the USA and other places, I find this highly unlikely and dangerously naïve. On their final point of national norms being legitimate only if they adhere to global norms, that may not be true in insular nations like the USA, or in developing ones like Latin America or Africa (Huber article, this issue; Mol and Sonnenfeld (2000)). Very much indeed is at stake in whether people truly demand adherence to global environmental norms, and we are doing no service to assume they will uniformly.

Clearly Spaargaren's and Mol's attention to consumer-citizens and emerging environmental norms is hugely important, but I believe I share Huber's approach that these will only have enduring power in nations or regions where there are strong regulatory structures. If we have one major economic crisis, I fear that all voluntary emissions reductions and labeling programs will be utterly forgotten luxuries of a bygone day. We must always remember in what part of the global stratification system and in what phase of global and national economic cycles we find ourselves. Very different possibilities apply for citizen-consumers and social movements in periods of expansion than do in times of contraction. Unsecured gains could amount to nothing, unless real regulations are instituted as law. Here I realize that I may sound like a dinosaur: citizen-consumer movements should be encouraged, but need concrete support and institutionalization into law. We cannot expect too much of them. The national or supranational state needs to do its job of regulating—individual citizens simply do not have the capacity to do the research and assessment needed to make hundreds of informed decisions a day.

## 5. Linking protecting biodiversity with climate change mitigation

David O'Connor's "Governing the Global Commons: Linking Carbon Storage and Biodiversity Conservation in Tropical Forests" (O'Connor, 2008) is an interesting reflection on two of the day's most pressing global environmental issues needing viable governance. He argues that addressing climate change and biodiversity present challenges which are similar and different in important ways; but that these differences might provide the complementarities needed to solve both if they were linked.

The core difference O'Connor points out is that in biodiversity, those paying the greatest price for addressing the issue are the poor in developing countries, while those demanding the protection of key species are wealthy country residents. With climate change, it is quite the opposite. That is, poor nations stand to suffer the worst impacts of climate change (e.g. Roberts and Parks, 2007), while wealthy countries who are causing the greatest share of the problem need to make the changes first. If

the wealthy countries were to pay their share in the form of payments to developing countries to protect their rainforests, the beneficiaries could be the rural poor. The Coalition for Rainforest Nations, led by Kevin Conrad representing Papua New Guinea, made this proposal first at the Montreal Conference of the Parties/Meeting of Parties (COP/MOP) in late 2005. Their proposal was for the granting of Certified Emissions Reductions to countries reducing emissions below an agreed baseline, to be traded to wealthy nations unable to make their agreed Kyoto reductions or those agreed for the post-2012 period. At the 2006 Nairobi COP/MOP, Brazil added another proposal based on flat payments per acre protected, to be funded by overseas development assistance. Either way, a huge new source of financing for biodiversity preservation may be unlocked (Hicks et al. (2008) showed that biodiversity in the 1990s received less than 5% of the amount prescribed in the “Agenda 21” document developed at Rio de Janeiro’s Earth Summit in 1992).

O’Connor’s article makes an important point, and opens some useful avenues for social research and policy analysis (though these could be more clearly specified). He argues, for instance, that “Environmental non-governmental organizations (ENGOs) will need to adjust their traditional model if they are to address effectively the climate change agenda... They will also need to engage more actively commercial interests like energy companies which have often been their adversaries in biodiversity conservation campaigns” (O’Connor, 2008, p. 368). This outreach will need to be carefully done, and doing so always risks co-optation or diversion of core missions of these ENGOs.

There is, for example, an extremely complex coalition and counter-coalition split *within* the environmental movement. European NGOs long resisted Clean Development Mechanism (CDM) funding for Avoided Deforestation to protect the scientific integrity of the Kyoto Protocol, while US and Latin American NGOs largely embraced CDMs for Sinks (Fearnside, 2001). Moving from a project-based approach to Avoided Deforestation (which seriously risks “leakage” of forest clearing from protected areas to nearby unprotected pieces of land) to a national AD approach was a huge breakthrough, and the issue progressed substantially at the Bali COP/MOP in November 2007. To say that resisting a CDM for sinks or ‘reduced deforestation’ “seems odd” (O’Connor, 2008, p. 368) fails to consider both the legitimate concern of European NGOs about the ability of rich countries to just buy their way out of reductions and the potential of such an Avoided Deforestation CDM (also called Reduced Emissions from Deforestation in Developing Nations or REDD) to crash the market price of Kyoto Certified Emissions Reductions (CERs) by flooding it with new CERs. It also devalues the difficult tasks of validating and monitoring reductions in deforestation, and other crucial scientific uncertainties and difficulties relating to carbon sinks. Thus new proposals for Kyoto are moving ahead, creating a lower-priced forest-CDM market in REDD.

Some things are changing: In Brazil, deforestation rates decreased significantly in 2005 and 2006 (but rose again in 2007), and the state of Amazonas has begun a Bolsa Floresta, providing small monthly payments to forest dwellers to protect their piece of forest. This is an important beginning in the region to “Payment for Ecological Services” for land (Hall, 2008). Land-use patterns and incentive structures (for clear-cutting and selective harvesting, for example) are different in different types of forests (Rudel and Roper, 1997, and more specific regional studies). In describing the new incentive structures for protecting resources, social scientists and policymakers want to hear who the actors are (O’Connor, 2008, p. 368). On FSC and other certification schemes, it remains very uncertain if the numbers of acres in such production and in preserves are likely to keep going up or if it will stagnate at the level needed to supply the

“boutique” high-end niche portion of the wood market. The cases of ACG preserves and the World Bank’s BioCarbon fund are interesting, but how they were chosen should be explained. The latter, at \$54 million, sounds large, but is tiny compared to identified needs and even private conservation funds.

O’Connor’s article wisely raises another key point largely missing from this discussion on avoided deforestation, one that I think is the most important in deciding if such a scheme is possible and likely to succeed. That is, how to ensure that funding gets down to the forest dwellers and other key actors making decisions on how to utilize the forest. O’Connor points to the need for “a strong voice of civil society, including indigenous groups, will ensure that this is the case” (O’Connor, 2008, p. 368). There is tremendous potential for corruption, coercion, graft, buying participation or political favors in exchange for release of these payments. Clearly this is going to be a long difficult struggle, and requires vigilance from conceptualization and design to institutionalization and maintenance of these payments for protection of ecosystem services. Property rights alone are not enough, however: other landless and wage workers rely on forests for income, and their survival and livelihood needs must be considered. Judicial systems and police efficacy need to be bolstered before funds begin to flow, and transparency needs to be guaranteed.

## 6. Conclusion

Returning to the question, “Globalization and Environmental Governance: Is Another World Possible?”, I agree that we need to understand *how* such a world might be possible, *who* the key actors are, and *what* the main obstacles are. I would also reiterate that other, *worse* worlds are very possible, if we are not successful in addressing the challenge and problem of establishing effective global environmental governance.

Clearly the character and role of the state are shifting. Addressing these issues requires strengthening the state at local, regional, national, supra-national and global levels. States need to innovate, as Spaargaren and Mol (2008) point out, forming coalitions with NGOs and supra-national organizations like the EU. New arenas for resolving these issues have been built, but the old arenas still exist as well, and need gladiators willing to go to battle in them. This may be too confrontational of an analogy for scholars from northern Europe, but therein lies some of the key limitations of Ecological Modernization Theory and “reflexive modernity” in describing the global reach of environmental reform efforts.

Spaargaren and Mol’s attention to consumers and their potential power is useful, but there are new emerging arguments that “green shopping” trends place (dump) far too much responsibility for regulating the global Leviathan on consumers, who are easily confused, demoralized, and deceived by green advertising and firms’ claims to be “eco-logical”. Firms declare their greenness unilaterally; with little likelihood they will be refuted. Marketing surveys prove the effectiveness of green claims on consumer loyalty, and environmental campaigners or academic assessors of actual environmental performance are far outgunned on this count. That said, consumers and private sector actors can be part of the solution, if states build upon the consensus for a need to address the issue of environmental sustainability with clear and strong regulations. Market and technological mechanisms, likewise, are part of the solution, but only a part, and must be supported by the banning of certain products and practices. As Huber (2008) and many others, cf. Ashford (2002) says, such environmental policymaking approaches must rest on top of a strong regulatory foundation. When the present, petroleum-based

car system is so entrenched, I frankly do not know what motor will drive the changes John Urry (2008) has proposed might happen via a series of tipping points! As my students say, humans respond only to disasters. In this case, I fear it may be an irreversible environmental disaster.

What is the central debate, then, in “Globalization and Environmental Governance?” I believe it is over *the ability of individuals and localities to control their own social and environmental destinies*. This is not new. New avenues for control of the negative effects of globalization are emerging, and these are important articles in moving the discussion forward on voluntary, technological, and citizen-consumer efforts to institute them. We need systematic studies of when and where citizen power is greatest and least, and what happens at all the points in the middle. That is, when and where are environments protected, and where are more negative decisions still being made and why? Clearly a broad spectrum of social as well as natural scientists needs to participate in discussions on global environmental governance, or “Earth System Governance” as is the current buzzword. Social scientists’ role can be both critical and positive, providing analyses which facilitate realistic and strategic solutions that can be tried and improved. Suggesting which technologies and systems-changing approaches are likely to bring on “tipping points” (Urry, 2008) and where they might work (Huber, 2008) is a start.

In policy engagement, we need to be involved in concrete discussions of national energy systems, of local mandates for “renewable energy portfolio” quotas, for developing viable systems of carbon labeling of products, of helping consumers drive environmental decision-making “down the supply chain” to the source of the raw materials and manufacturing (not just food miles) and the other direction to disposal and recycling of waste. I would argue that social and natural scientists and engineers need to join together to understand our society’s metabolism, as the teams led by Marina Fischer-Kowalski and Christoph Amman (2001) and Stefan Giljum and Nina Eisenmenger (2004) are doing. We need to calculate ecological debts between nations and build them into compulsory payments for the ecosystem services developing nations are providing (Muradian and Martinez-Alier, 2001). Of urgent actions, we are unquestionably in a pivotal time for the negotiations over the shape of the post-2012 Kyoto climate change protocol. Environmental social scientists have often been

missing in action from major international policy debates like these: I believe we need to be in the arena. Citizens and scientists across the disciplines need to apply serious pressure to make any sort of global environmental governance system work. It’s hard to see how it’s going to all work, but it has to. We need a system with pressure and support from above and below.

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