Environment, Technology, and Society

Newsletter of the Section on Environment and Technology of the American Sociological Association

Reflections on how the "Top Ten" works in environmental sociology came to be written...

Following last year's editor's poll on the top ten works in environmental sociology, the authors of these works were asked to share some reflections on how they came to write these key texts. The first installments are below–Gene Rosa, on his article "Metatheoretical Foundations for Post-Normal Risk", and Allan Schnaiberg on his books *The Environment: From Surplus to Scarcity* and with Ken Gould, *Environment and Society: The Enduring Conflict.*

Reflections on "Metatheoretical Foundations for Post-Normal Risk" Journal of Risk Research 1:15-44 (1998)

Gene Rosa, Washington State University

It goes without saying that the inclusion of my article, "Metatheoretical Foundations for Post-Normal Risk" (called Meta for short) on the list of ten useful publications in environmental sociology was personally gratifying. But ego-enhancement was a very distant intention in writing it, for my real hope with this article was to alert environmental social scientists to recognize that the field–perhaps unwittingly–had ventured into a thicket of deep philosophical issues and, having done so, had impregnated all of our approaches to and claims for knowledge with such issues. Since I obdurately believe that intellectual vitality is only ensured by ongoing dialectic, one wholesome consequence of this ferment was the potential for a renewed vitality in the field. Another, less wholesome, perhaps unintended consequence was that if one traced arguments back and forth from foundation (often unstated and left implicit, but nevertheless there) to conclusions, one often uncovered incoherence in the logical structure of knowledge claims. And, despite the current celebration of a plurality of epistemologies, all social epistemologies share a commitment toward making a coherent statement about the world. Incoherence defeats that common commitment. I was deeply troubled by this state of affairs.

From one point of view I should not have even attempted this article. I recall from the dimmest reaches of my memory the admonishment of either of two intellectual heroes: Nancy Cartwright, over a pint at the Beaver Retreat at the London School of Economics, or Kristin Shrader-Frechette, over crabcakes at the American Association for the Advancement of Science meetings in Baltimore. Whatever the proper attribution, the message has remained undimmed in the active reaches of my mind. In short, it said that sociologists were generally impoverished whenever they attempted to do philosophy and were well advised to stay clear of that time-weathered pursuit. That I did not heed the advice of one of these intellectual giants speaks to my naiveté, to my iconoclastic spirit, to my contrariness, to my stubbornness, or to my commitment for moving the discourse of environmental sociology forward by articulating a sound epistemological foundation. Needless to say, I would like to think the last option is the sole motivation for Meta, but in reality it was probably a combination of all these options as well as unrecognized others.

As for the argument of the article itself, it is developed directly within the tradition of analytical philosophy, a long-established intellectual tradition in the West. Its topic is ostensibly about the epistemology of risk; however, I believe the argument is robust, applicable *continued on page 4*

In This Issue...

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Notes from the Editor

Welcome to the Spring 2001 issue of ET&S and the continuation of a year-long celebration of the 25th anniversary of the Environment and Technology Section

Have you ever been asked the question: "How did you become interested in the environment?" I hear this question all the time, and it puzzles me. How can one not be interested in the environment?! But then I meet people who really have no interest–that they know of. They don't like the outdoors–there are bugs, and pollen, and bears! There are dangers out there! The city is the natural human habitat, as far as they are concerned. Concrete and pavement, now that is safe!

For me, I remember being paid a quarter to fill a little bag with trash from the beach or the woods. (It was the early '70s, and I was young, so it seemed like a lot!) My sister and I were taught to try to leave a place better than we found it. My parents and grandparents have always had gardens and birdfeeders. We traveled to Yellowstone, and to the beaches of Florida and Cape Cod, and to parks in between. We visited the local plant conservatory and bought vegetables from a local farmer. I treasure those places–from the suburban backyards to the vast parks.

It is troubling that there are people who feel so alienated from the environment that sustains their lives and all our lives. I submit that this broken connection is a puzzle we need to explore, and then work to rebuild.

In this issue, we're looking back as well as forward. Reflections on the writing of three of the "top ten" works in environmental sociology are included, along with a preview of a conference paper on global climate change. And much more!

Got something to share with the Section? Your submissions are needed as always!

Also, we are still looking for a membership chair and committee. Volunteer today! Graduate students are welcome to serve, too. (This is a great way to build your network.)

Award Committees, 2000-2001

Olsen Student Paper Award:
Harry Potter, Chair
Lori Hunter & John Talbot

Distinguished Contribution Award:
Ken Gould

Boguslaw Award (to be awarded in 2001):
Allan Schnaiberg, Chair
Phil Brown & Nancy Stein

Outstanding Publication Award to be awarded in 2002

2001 Extra-Conference Workshop:
Timmons Roberts, Jeffrey Broadbent, David Pellow, and Tom Rudel

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ET&S is printed on recycled paper.

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Book Review:

Jared Diamond's *Guns, Germs, and Steel: The Fates of Human Societies*

by Judi Anne Caron Sheppard

This pulitzer prize winning book addresses the question of why some societies have developed more complex technologies than others and at earlier times in history. The author, a physiologist, offers a refreshing look at societal differences that is **NOT RACIST, nor ethnocentric,** and does not rely on issues of intelligence, creativity or cultural values. He presents an argument based on the geographic distribution of plants and animals.

His argument begins with the accepted idea that humans lived in hunting and gathering societies until about 11,000 years ago. As the sociologist Lenski (1987) also noted, a major change in human societies began with the technological innovation of the domestification of plants and animals and that this technological development provides a basis for further technological complexity. He argues that all societies did not have equal opportunity to domesticate plants and animals.

Plant Domestication

Diamond points out that all plants are not equally suitable for domestication. Only a small minority of plants and animals are edible and digestible and efficient to gather and prepare. Furthermore, geographic areas and climates vary in their ability to support the growing of crops. Certain particular characteristics make some plants easier and more efficient to domesticate than others, for example, large seeds, self-pollinating annuals. Using complex biological and archeological evidence, Diamond concludes that Mediterranean climates were the most supportive and that the area in east Asia known as the fertile crescent was probably most suitable and the originator of plant domestication. Other areas of the world with suitable climates such as California, southern Africa and Chile did not have such suitable plant species available.

Animal Domestication

Next, he argues that only a small number of animals are suitable to domesticate and these are also not equally distributed geographically. Animals require an even more limited set of characteristics, for example they need to be larger, of easy going temperament, and be plant-eating herd animals. He concludes that only about ten species clearly fit the requirements and further that we have not successfully domesticated any new species today such as zebras. Again, several suitable species existed in the fertile crescent areas. Some geographic areas such as Australia had no suitable animals.

Geographic Cultural Diffusion

He next addresses the diffusion of information from one society to another. While some other societies did independently domesticate plants and animals, Diamond argues that the majority acquired the ability through cultural diffusion from the fertile crescent where it most likely originated. This process was influenced by continental geography. He notes that transmission of plant domestication information is easier in an east/west direction where climates are more similar. In contrast, north /south direction involves changing climates that would be less suitable to similar crops. Thus, not only was east Asia the most suited for originating domestication, but Eurasia as a continent has an east/west axis making cultural diffusion of this information most effective. While Africa is near east Asia, the north/south axis of this continent made transmission of the domestication information less feasible.

Consequences–The Agricultural Revolution

Many authors have given attention to the consequences of plant and animal domestication including Lenski. The more immediate consequences of domestication of plants and animals include increased food supply and food surpluses leading to increased population and sedentary societies with greater division of labor and inequality. This in turn leads to increased complexity of technology, large centralized political systems and to industrial societies. These include the horticultural and agrarian societies identified by Lenski.

Political Organization and Writing

Diamond develops the argument in greater detail noting other consequences and ultimately the development of power differences between societies. First, he argues that writing develops out of needs of large political systems to keep records. He further posits that most societies adopted writing through diffusion rather than independently inventing it, thus, again favoring Eurasia with its east/west axis. Likewise, he argues that much technology is acquired through diffusion as well as independent invention, which also favors societies that are geographically close. Furthermore, technology begets more technology.

Thus those societies with earliest domestication developed large centralized political organizations, technology and writing. The complex technology included more sophisticated weapons. Those societies were then able to conquer other societies with less complex technology especially horses and guns.

Germs and Conquest

Another equally important novel idea offered by Diamond is the significance of germs. He argues that large human populations living with livestock give rise to mutated germs and infectious diseases. Societal members may eventually become immune but the targets of conquest may succumb more from disease than warfare. Examples include European conquest of the Americas and other areas. Populations of conquered peoples were dramatically reduced offering much less resistance. Thus, warfare technology and infectious diseases allowed those societies to conquer others who were less technologically developed.

Conclusion

Diamond's argument concludes that social power of societies today resulted initially from their favorable geographic location. Geography determined their ability to domesticate plants and animals and adopt patterns from other societies which in turn led to increased technology, centralized political organization, writing and conquest. Those societies existing in the most isolated and in least supportive geographic areas have remained hunter/gatherers to this day. The strength of his argument is based on his biological evidence of the distribution of plant and animal species.

Did you know...the U.S. Postal Service introduced the Great Plains Prairie stamp, on April 19, 2001? The Great Plains Prairie stamp "pane" consists of ten first-class postage stamps that create a mosaic of mixed grass prairie plants and wildlife. Check it out at http://www.usps.com/news/2001/philatelic/sr01_035.htm or at your local post office!

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to the epistemological underpinnings of all work in environmental sociology. It develops a philosophical framework grounded in ontological realism (OR), on the one hand and epistemological hierarchicalism (EH), on the other hand. The framework is identified in the original article by the combined acronym OREH, but subsequent refinements have led to the conceptualization of hierarchical epistemology and realist ontology, resulting in the more user friendly acronym: HERO. It argues that the debate between realism and constructivism is misplaced and sterile. It further argues that the OREH (now HERO) framework provides the scope conditions for judging between the competing applicability of epistemic realism and social constructivism–in the latter's many forms. Its goal was to move us beyond debates about what is risk, or what is the environment, to what we know about these crucial phenomena and how we can direct policy and other efforts toward sustainability.

While my principal training was in the positivistic and epistemic realism traditions, and while mentored by an ex-physicist/engineer, I have always tried to maintain catholicity in my views about alternative approaches. But even within that positivist training there was, for me, an element of disbelief in the highly sanitized version of science portrayed in the "received view." Furthermore, the troubling idea of constructivism and of the importance of sociological context to knowledge was not entirely absent, for Thomas Kuhn's recently published second edition (now a 20th Century classic) was required reading in several courses. It is doubtless that neither painfully few others nor I could know the breadth and significance of its eventual impact. Likewise, I was then unaware of its cognates in the sociology of knowledge, in social constructivism (despite the appearance of Berger and Luckman's classic statement of that perspective at around the same time–the first book to have "social construction" in the title), and in the emergence of the field of science studies, now subsumed under the more general heading "Social Studies of Knowledge."

The outcome for me of the eventual ascendancy and diffusion of the social constructivist perspective, coupled with my continued commitment to catholicity, was to find myself spectator to an epistemological tennis match; neo-positivism hit a solid forehand on one side of the court only to receive a smashing backhand from social constructivism from the other side of the court. My first impressions were that both perspectives clearly had merit. But, it was obvious that they proceeded from fundamentally antithetical first principles and, therefore–at least according to the predominant practice–were incommensurate with one another. And an ad hoc patching together of the two could only result in knowledge claims punctuated with non sequiturs. This was unacceptable as it could only vitiate our claims about human interactions with the environment and therefore diminish our role in trying to solve environmental problems.

It then became clear–in deference to J.S. Mill's dictum to understand both sides of an argument equally well–that I needed to more fully master the social constructivist perspective. That effort toward mastery (still ongoing) produced its share of "ah ha's," but it also produced its share of frustrations. In the brief space allotted here I can only provide the briefest sketch of these frustrations. First, try as I might, I simply cannot accept the view of extreme constructivism that there is no external reality–that the blood dripping from my finger last night due to my inability to master a slicing mandolin was not real–"a brute fact" in John Searle's terms. As a corrective the more moderate realist-constructivists argue that things are real even if constructed, but then deny–a logical contradiction in my view–the classical distinction in analytic philosophy between ontology and epistemology.

Constructivism, in all its forms, also presents a variety of conundrums, such as: From what are constructions constructed (certainly not always from chimera)? Why do we come to strongly believe some constructions over others; is it strictly a matter of opinion? Do not constructivist claims to knowledge rely on empirical evidence, an implicit acceptance of the bedrock of realism: external data? I also wondered, after Ian Hacking, whether the bandwagon momentum had turned social constructivism into code–and, as code, had emptied itself of rigor?

To these troubling features we can add several logical challenges. First, if all knowledge is socially constructed (other than in the unassailable tautological sense), then by conceptualizing everything in its path (the social construction of everything) the idea ends up having no meaning at all. Second, if all claims to knowledge are equally valid as a variety of social constructivists propose there is no hierarchy of knowledge. But, with no hierarchy of knowledge there is no knowledge at all; knowledge is reduced to information. Third, perhaps most troubling is the potential for the exaggeration or the misuse of power. It follows from feature two that in an arena of competing, equally valid knowledge claims the potential for speaking truth to power (the time honored defense of the underclass) is denied, for there is no veridical truth. This, in turn, vitiates important claims we environmental social scientists may wish to make, such as we have irrefutable evidence that we are seriously assaulting environments.

Despite all the troubling features of social construction, barely sketched above, its vitality seemed assured by the reality that many of life's experiences originate with constructions–symbols, ideas, language and so on. At the same time if you prick Shylock he will in reality bleed. So, to relieve the "bloomin, buzzin confusion" of the realist/social constructivist tennis match I developed Meta as an articulated and disciplined way of preserving the best features of each of these epistemologies. To do so I developed a framework, based upon the principles of ostensibility and repeatability that positioned both approaches as integrated complements–not as the antagonists commonly assumed.

My intentions with this framework were neither the naïve hope that it would put an end to the realist/social constructivist debate, nor that it would go unchallenged. Instead, my hope was to stimulate environmental social scientists to reflect on their chosen epistemology (whether done implicitly or explicitly), to recognize potential problems in the logic of the various epistemologies, and to be mindful of the political implications of epistemology. To the extent I have so stimulated scholars, my framework has more than met its goals.

Reflections on the 1980 text *The Environment: From Surplus to Scarcity*

Allan Schnaiberg, Northwestern University

In 1975-76, Schnaiberg was on a sabbatical leave from Northwestern University, at the University of California at Santa Cruz. His major objective during that year was to bring together his thoughts about the social dimensions of environmental problems. He wanted to extend the early papers he had written on the environmental movement, and on the relationship of environmental problems to structural models in Sociology, including early work in "human ecology."

Two features of American attention to "environmental degradation" in the late 1960s and throughout the 1970s recurrred in this work. First, there appeared to be a major change in the actual impact of societal production upon ecosystems in the last half of the 20th century. Second, the social

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responses to these impacts seemed to be quite variable and volatile.

Being on his first sabbatical, and freed from the immediate interaction with sociological colleagues, Schnaiberg spent part of the year struggling to grasp what both natural scientists and social scientists had been writing about environmental degradation. He wanted to provide a framework for younger sociologists and his students to quickly grasp the logic of ecological degradation, without themselves having to read widely in natural sciences. To this end, he had introduced into his earlier teaching "ecological additions" and "ecological withdrawals", as concepts that linked societal production to ecological structures. This "socio-ecological" accounting principle provided a logical path to understand the processes through which industrial societies affected ecological systems.

With this logic in mind, Schnaiberg began to trace how and why environmental disruption seemed to have increased exponentially post-1945. Thinking about his own graduate training in economic development processes, in industrialization, and in technological changes after 1945, the beginnings of a theoretical synthesis appeared to him. In the U.S.A. and other industrial countries, the period after 1945 was one of rapid economic growth. Such growth was literally fueled by expanded sources of energy (especially petroleum), and almost as crucially, by the use of synthetic chemicals in the production process. Moreover, this form of industrial growth substituted new forms of automated technology for human labor. Producer organizations required ever-larger sources of fiscal capital to finance this new productive capital.

Two additional dimensions of this historical change needed to be added before Schnaiberg could reach the model of the *treadmill of production*. First, the processes outlined above suggested that owners and managers of productive organizations had to actively make decisions to allocate profits to new physical technologies, rather than to expand the quantity or quality of their labor force engaged in production. Second, workers in industrial societies had to at least passively accept such decisions, even though this seemed to work against the interests of organized labor and unorganized labor. They had to accept it in their workplaces, and they had to politically agree with this pattern of growth, insofar as this pattern of productive investment had the enthusiastic backing of governments in most industrial states.

Mulling through these issues, Schnaiberg realized that what completed his argument was the gains of workers through this process. During the 1945-1975 period, after all, the U.S. was transformed from a working-class to a middle-class society (albeit with substantial poverty present still). Workers gained new income and occupational opportunities by the expansion of production and trade. While there were fewer workers involved in the actual production processes, they tended to be more educated and skilled than in earlier industrial periods (though others have questioned this)–and they earned a middle-class salary rather than a working-class one. They engaged in creating energy and chemical flows, planning production, and especially in marketing the expanded array of products that this system generated. Production workers were in effect replaced by accountants, sales people, engineers, financial experts, and even industrial sociologists!

Once Schnaiberg assimilated this form of a changing "social contract" into his thinking about environmental problems, he began to realize that this entire system of production rested more heavily on (1) the throughput of large amounts of natural resources, and (2) the chemical transformation of many of these natural resources in the production process. The former dependency helped explain rising levels of ecological withdrawals or forms of resource depletion, while the latter dependency helped him understand rising and more toxic levels of ecological additions or forms of ecosystem pollution. This was the basis for Schnaiberg's physical model of the treadmill: production organizations required ever-larger amounts of natural resources and their chemical transformation per each unit of production. Each cycle of production, sales, and profits in turn led to more investment in resource-intensive "high technologies"–requiring more fossil fuel energy and/or more synthetic chemicals to increase the "efficiency" of production.

A social model of the treadmill is that a given worker engaged in production, which led to profits. These would, at some point, create the conditions of her/his own displacement by new technologies. We were increasingly tapping into these ecosystems either as feedstocks for our rapidly expanding treadmill of production, or as sinks in which to dispose of the chemical by-products of this production (and its consumption, of course). Workers directly shared in the benefits of this rise of what was then called "monopoly capital," and had some trickle-down benefits even in smaller "competitive capital" enterprises. Moreover, the rise of tax revenues generated by this expansion of production allowed for the state to create new services for workers and their dependents–and in the process, to expand state employment and absorb what might otherwise have been a surplus of labor because of the treadmill.

Much of the logic of the 1980 book pertains to current socio-economic and ecological tensions. Perhaps the major shift is in the rapid transnationalization of these processes, which was dealt with in his joint effort with Ken Gould in 1994. But despite many apparent changes in the US economy, I see little evidence of genuine "ecological modernization," and much evidence of an accelerating treadmill of production.

Reflections on the 1994 text *Environment and Society: The Enduring Conflict*

Allan Schnaiberg and Kenneth A. Gould

Schnaiberg had explored a more optimistic alternative to the treadmill at the end of his 1980 book, building on the arguments of E.F.Schumacher, in his 1973 book *Small Is Beautiful: Economics as if People Mattered* (Harper & Row). Schumacher argued for a more modest use of physical capital in his model of "intermediate technology"–a technology that was somewhere between that of the underdeveloped South and the highly industrialized North. In part because of the sudden and diffused impacts of petroleum price increases and supply controls by the Organization of Petroleum Exporting Countries (OPEC) during the mid and late 1970s, Schumacher's idea of an alternative lower-energy production system came to have broad appeal in intellectual and policy circles. He had himself established Intermediate Technology Centers in some countries of the South, and the United Nations itself took some interest in this concept and its application. Although Schnaiberg's book received much praise and use by sociologists, they resisted accepting the treadmill of production theory. In contrast, both social scientists and political officials seemed enthusiastic advocates of Schumacher's "appropriate technology" concepts, up through the mid 1980s.

At that point, Gould had become a graduate student at Northwestern University. Initially interested in social development issues in Africa, he became interested in Schumacher's ideas and proposals. As with many other scholars (including Schnaiberg, at the time of the 1980 book), the appropriate technology path seemed to offer an alternative:

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to the treadmill, in both underdeveloped and industrial societies. However, by the time that Gould began to trace what AT proponents had produced as treadmill alternatives, Schnaiberg had become skeptical about the lack of political sophistication of AT proponents. He cautioned Gould about this skepticism, but nonetheless welcomed Gould's interest in environmental issues in general and AT in particular. Gould's work served to create a new phase in Schnaiberg's career, and the evolution of the treadmill as a social structural concept.

When Gould turned to the review of the growing literature on AT, he quickly came to share Schnaiberg's skepticism. He noted the evolution of AT from a concept that was sharply distinguished from the treadmill logic, to one of AT as a kind of supplement to the treadmill, under very limited conditions. Gould's work led him to another level of skepticism during his doctoral research, in which he traced Canadian and U.S. responses to water pollution in the Great Lakes, shared by both countries. As had been the case with AT, Gould anticipated that Canadian public officials would be more responsive to environmental pollution than would U.S. officials. Canada had become a much more vocal environmental voice both in North America and in the United Nations, under Maurice Strong.

Gould's work matched three Canadian and three American communities, and traced how the general environmental protection agreement by the International Joint Commission was in fact largely undermined by local and regional officials in both countries. The factors producing this disattention in both countries seemed to be those associated with the treadmill of production. Thus, by the time Gould completed his thesis in 1991, he had come to share Schnaiberg's sense of the pervasive influences of the treadmill of production. Moreover, his empirical work had extended to both countries of the South, and to international and binational efforts at environmental protection, and offered an empirical extension of Schnaiberg's theoretical synthesis of the treadmill.

Moreover, when Gould became a faculty member at St. Lawrence University in 1991, he discovered that there were rather limited books for teaching environmental sociology, one of his own specialties. Schnaiberg's 1980 book had gone out of print in 1987, and he and Schnaiberg had discussed revising it after Gould completed his thesis. But in 1991, Gould and Schnaiberg both felt that the need was for a more effective and less complex book, to carry forward the concept of the treadmill in an updated and empirically grounded fashion. They decided to jointly produce this work, which deepened the systematic analysis of the treadmill of production, particularly at a political level. At the same time, it extended the analysis in a macrostructural way, by tracing how the treadmill is replacing indigenous production systems in underdeveloped countries of the South. And finally, it acknowledged the powerful cultural pervasiveness of treadmill thinking, acknowledging the microstructure that leaves many readers with a sense of despair at changing our production systems.

In the 2000 reprinting of the book, by Blackburn Press, the central updating of the argument is that the last untapped ecosystems and untied human populations have become more fully integrated into a transnational treadmill.


Missing the Point: Public Discourse on Global Climate Change in the United States

Dana R. Fisher, University of Wisconsin-Madison

As we approach this year's ASA conference, sociologists from around the country are preparing talks on issues of social import. Particularly pertinent is the issue of global climate change, which is the subject of one of the ETS sessions. This session is being held at a particularly timely juncture in the global climate change policy-making process since sociologists may be able to contribute significantly to the policy decisions that will affect the environment for years to come.

With the Conference of Parties 6 (COP6) negotiations of the Kyoto Protocol for Global Climate Change reconvening in Bonn this summer, the future of the Protocol as a global treaty is uncertain. In the United States, discussions are at a standstill with President Bush all but ignoring the fact that the United States is a party to the United Nations Framework Convention on Climate Change and the international climate change negotiations to finalize the Kyoto Protocol. Outside the United States, however, the Protocol is alive and well.

Going into the Hague round of the November 2000 negotiations, in fact, Japan and the European Union (EU) had embraced the potential implementation of an international treaty to regulate greenhouse gases and were hoping to negotiate a ratifiable treaty before 2001. Three members of the European Union had even begun the domestic ratification process, the first step toward ratification of the EU as a whole. Moreover, representatives of both the EU and Japan have said they hope to have a final draft of the Protocol by the end of the negotiations this summer so that the ratification process can officially begin. However, the U.S., the #1 emitter of CO2 in the world, could derail the entire process unless it comes to the negotiating table ready and willing to agree to viable measures for mitigating climate change. The U.S. becomes even more important because climate change leaders in the EU and Japan have said that without the U.S. on-board, they cannot be certain their countries will continue to move toward ratification.

Given this remarkable time in the formation of a potentially significant multilateral environmental agreement, the paucity of relevant public discourse on climate change in the U.S. is disheartening to regard. Since the breakdown of the negotiations at the first part of COP6 in November 2000, most of the discussions in the U.S. about the potential regulation of climate change have centered on identifying the party responsible for the failure of the talks. Very few articles in the popular media have mentioned the significant difference between the U.S. and other countries' actions regarding the regulation of climate change. Few Americans know that Japan has implemented the "Law Concerning the Promotion of the Measures to Cope with Global Warming" (Law Number 117 of 1998), and the EU is close to meeting its 8% emissions reduction that is stipulated by the first commitment period of the Kyoto Protocol (2008-2012). Within the U.S., discussions about climate change continue to focus on the economic costs of mitigating global warming and the minority of researchers who continue to challenge the science of the issue.

Instead of focusing on what Ross Gelbspan, author of a recent article in the *American Prospect*, calls the "withering into paralysis" of the Kyoto Protocol (8 May 2000), it would be more productive for popular media sources to note the United States' role in holding back the formulation of an enforceable international climate regime. Discussions that ignore the actions of the rest of the developed world's climate change measures neither contribute to a better understanding of the global character of this global problem, nor do they help to resolve the stalemate in the United States. It is my hope that part of our discussions at the ASA this summer will focus on how sociologists who study the relationship between society and the environment can contribute to a shift in the public discourse and a positive resolution of the climate change debate.

Ms. Fisher's dissertation, "Regulating the Environment: The Kyoto Protocol for Global Climate Change in Advanced Industrialized Nations" compares the domestic responses of the U.S., Japan and the Netherlands to a potential treaty on global climate change.

Member Publications and Other Publications of Interest

Bates, Diane and Thomas K. Rudel. 2000. "The Political Ecology of Conserving Tropical Rain Forests: a Cross-national Analysis." *Society and Natural Resources*. 13:619-634.

Cecelski, Elizabeth. 2000. "The Role of Women in Sustainable Energy Development." NREL/SR-550-26889. Golden, CO: National Renewable Energy Laboratory. 43 pp. June. <http://www.nrel.gov/docs/fy00osti/26889.pdf>

Dunlap, Riley E., Kent D. Van Liere, Angela G. Mertig and Robert Emmet Jones. 2000. "Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale." *Journal of Social Issues* 56:425-442.

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Farhar, Barbara C. 2000. "Progress on Linking Gender and Sustainable Energy." NREL/TP-550-27999. Golden, CO: National Renewable Energy Laboratory. 6 pp. Paper presented at the World Renewable Energy Congress, Brighton, UK, July 1-6, 2000. <http://www.nrel.gov/docs/fy00osti/27999.pdf>

Hays, Irene D. and Barbara C. Farhar. 2000. "The Role of Science and Technology in the Advancement of Women Worldwide." NREP/TP-820-28944. Golden, CO: National Renewable Energy Laboratory. September. 51 pp. <http://www.nrel.gov/docs/fy01osti/28944.pdf.>

Hunter, Lori M. 2000. *The Environmental Implications of Population Dynamics.* Population Matters Series. RAND Corporation: Santa Monica, CA.

This 98-page report draws from the scientific literature to synthesis what is known about the role played by human population factors in environmental change. Specifically, the report discusses the following:

* The relationship between population factors -- size, distribution, and composition -- and environmental change;
* The primary forces that mediate this relationship: technology, the institutional and policy contexts, and cultural factors;
* Two specific aspects of environmental change that are affected by population dynamics: climate change and land-use change;
* Implications for policy and further research.

The report was written as a component of RAND's Labor and Population program's *Population Matters* project, which aims to communicate findings of research in ways that policy analysts and others find accessible. It would be a useful resource for undergraduate courses incorporating issues of demographic and environmental change.

To receive a copy of the report, contact Lori Hunter at the Program on Environment and Behavior, Institute of Behavioral Science, University of Colorado at Boulder, Campus Box 468, Boulder, CO 80309. 303-492-1006. Lori.Hunter@colorado.edu.

McCright, A. M. and R. E. Dunlap. 2000. "Challenging Global Warming as a Social Problem: An Analysis of the Conservative Movement's Counter-Claims," *Social Problems* 47:499-522.

Pellow, David N. 2001. "Environmental Justice and the Political Process: Movements, Corporations, and the State" *The Sociological Quarterly* 42:3.

Petrzelka, Peggy and Michael M. Bell. 2000. "Rationality and Solidarities: The Social Organization of Common Property Resources in the Imdrhas Valley of Morocco" *Human Organization,* Vol. 59, No. 3 Pgs. 343-352.

Plympton, Patricia. 2000. "National Status Report, Home Energy Rating Systems and Energy-Efficient Mortgages." NREL/TP-650-27635. Golden, CO: National Renewable Energy Laboratory. April. 39 pp. <http://www.nrel.gov/docs/fy00osti/27635.pdf>

Roberts, J.T. and Melissa Toffolon-Weiss. Forthcoming. *Chronicles from the Environmental Justice Frontline.* Cambridge University Press. (July 2001)

This book provides a rare look into the environmental justice movement as it plays out in four landmark struggles at the turn of the twenty-first century. Roberts and Toffolon-Weiss chronicle the stories of everyday people who decide to battle what they perceive as injustice when their minority neighborhoods are disproportionately threatened by industrial pollution. The four cases detailed here are epic struggles: conflicts involving U.S. environmental and civil rights agencies over the siting of a chemical plant and a nuclear facility in ex-slave communities; a class-action lawsuit by 300 Cajun and Houma Indian residents over a huge oilfield waste dump built next to their tiny town; and an uphill political and legal battle for relocation by a middle-class, African-American neighborhood built with federal assistance atop a reclaimed landfill. They all occur in Louisiana, America's "pollution haven" and the "frontline" in the battle over environmental justice. In each case residents and environmental and social justice groups on one side are pitted against government officials and industry representatives on the other.

The authors place these struggles into the historical context of inequality and race relations in the U.S. South, and apply social science theory to reveal how situations of environmental injustice are created, how they are resolved, and what accounts for their success or failure. They find that conflicts over industrial pollution such as these build upon one another: one struggle changes policy, instructs political actors, activists, and industry representatives, and can have a significant effect on *Continued on page 8...*

Publications, continued from page 7

the outcome of future struggles. Access to public-interest lawyers and attention by national media and environmentalists are pivotal in determining the outcomes. While the cases featured here take place in Louisiana, a major portion of these battles are fought in Washington, D.C. These cases have set precedents and created quandries for government agencies as they handle cases occurring across the nation. The struggles have left behind subtle and profound changes in the individuals, firms, and communities involved.

Chronicles from the Environmental Justice Frontline is intended for general readers, policymakers, businesspeople, and scholars wishing to learn about these landmark cases and about environmental justice politics more broadly. It will also benefit environmental and social justice activists and students in environmental studies, law, planning, administration, communications, business ethics, sociology, geography, and political science.

Rudel, Thomas K., Marla Perez-Lugo, and Heather Zichal. 2000. "When Fields Revert to Forest: Development and Spontaneous Reforestation in Post-war Puerto Rico." *Professional Geographer*. 52(3):386-397.

Rudel, T.K., K. Flesher, D. Bates, S. Baptista, and P. Holmgren. 2000. "Tropical Deforestation Literature: Geographical and Historical Patterns." *Unasylva*, 203, 51:11-18.

Smith, Julie A. 2000. "Solar-Based Rural Electrification and Microenterprise Development in Latin America: A Gender Analysis." NREL/SR-550-28995. Golden, CO: National Renewable Energy Laboratory, 20 pp. November. <http://www. nrel.gov/docs/fy01osti/28995.pdf>

Handbook of Environmental Sociology

Riley Dunlap and Bill Michelson are very happy to announce that the long-awaited ***Handbook of Environmental Sociology*** is finally scheduled to appear. It will be published by Greenwood Press later this year.

Greenwood has kindly agreed to offer the *Handbook* at a special prepublication discount to environmental sociologists. They will make this discount available to members of the ASA Section on Environmental Sociology, the RSS Natural Resources Research Group, the ISA Research Committee on Environment and Society and related groups for whom we can obtain membership lists. A mailing will go out this summer.

Meeting Announcements

The *International Institute for Environment and Enterprise* at the University of Denver hosted scholars from around the world who have studied the ozone layer regime to contribute to the official history of the Montreal Protocol commissioned by the United Nations Environment Programme. The meetings took place in Keystone, Colorado March 21-23. After May, the conference summary may be found at the Institute's website: <http://www.du.edu/enviro>.

Indiana University's new *Summer Intensive Training in Research Methodology* is offering two programs this Summer: "Categorical Data Analysis: Introduction to Regression Models for Discrete Outcomes" with J. Scott Long, and "Ethnomethodology and Conversation Analysis" with Doug Maynard. These 1-week courses are scheduled for July, 2001. If you would like additional information, please visit our website <http://www.indiana.edu/~isr/isrip/>, or contact the Institute of Social Research Intensive Program by email at isrip@indiana.edu.

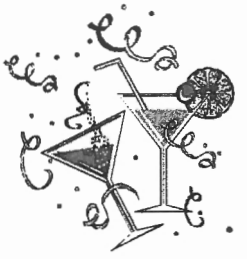
Member News

The University of New Orleans sponsored a three day work-shop on the sociology of risk. The theme, *RISK, SEARCHING FOR VOCABULARIES THAT WORK*, invited a broad range of discussion from production to consumption risks and how to talk meaingfully about them. Kai Erikson moderated the work-shop and participants came from as far as Germany and the United Kingdom. Importantly, everyone paid their own travel expenses, allowing us the automony to identify and discuss a wide array of issues in a lively conversational style without the imposition of a formal meeting itinerary.

If you want information about the workshop, please contact: **Steve Kroll-Smith**, Research Professor of Sociology, University of New Orleans, New Orleans, LA 70114, jskso@worldnet.att.net

E&T 25th Anniversary Reception

The 2001 Annual Meetings of the American Sociological Association mark the 25th Anniversary of the founding of the Environment and Technology Section.



A special reception is being planned. Your support will help make this a truly special event. We welcome donations from individuals, departments, universities, or other organizations to help us mark this milestone.

All contributors will be acknowledged in the summer 2001 newsletter.

Please send your check to the American Sociological Association, 1307 New York Avenue NW, Suite 700, Washington, DC 20005-4701.

Make sure you designate the funds as a donation to the Section on Environment and Technology. Donations to ASA are tax-deductible.

Let's all work together to make it great!