

STEP AHEAD

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Note from the Editor

Well, it is a little late, but here is the Spring 2006 issue of *STEP Ahead*. The main theme of this issue was comparative analysis of STEP issues, focusing on comparisons between countries and institutions. Amazingly enough, almost all the contributions have some type of comparative analysis! And even when there is not comparative analysis, at least there are interesting perspectives. Since the goal of *STEP Ahead* is to knit together the STEP community, of course I'll consider this issue another success.

This is also the sixth issue of this newsletter, and according to the "Lore of Publishing Professional Newsletters" (a classic study!), perhaps it is time for a quick review. I think *STEP Ahead* generally produces some interesting work by the end of the process, and I have fun putting it together. However, it does sometimes feel like pulling teeth to get contributions from the community. Obviously you do not get much professional credit for writing a STEP piece, but you do get a little, especially in the "professional service" category. You also get a chance to market your research, often prior to publication in a peer-reviewed scientific journal. So please try to...STEP up...and increase the contribution rate! I am also more than willing to take any suggestions on themes or special issues of the newsletter that focus on issues of particular interest to you and your colleagues.

Thanks again for your contributions, and the work of the book review and assistant editors. Please contact me with any comments, ideas, etc.

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FORUM OPINION

The Gap Between Science and Public Policy

Roger D. Masters
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In several distinct contexts, ranging from consulting in Washington to working on specific policy areas at the State level, I've recently experienced the difficulties of translating recent scientific findings to public policy terms in a way that is faithful to the science yet understood by those responsible for the actual decisions. I'll report these experiences anonymously for obvious reasons (one of which is that others describe similar difficulties).

On the one hand, many "experts" have difficulty presenting findings in a technical area of research in a way that is comprehensible to policy-makers (who often lack the expertise to translate scientific findings into policy-relevant terms. In one case, after a legislative hearing in which a number of excellent researchers described their important results, I found myself the last witness -- and as I have often done, I translated the findings into the cost of non-action to taxpayers. I was reinforced in the need to do this because, after the hearing, the Committee's Chair came up to me and said: "Thank you: now I know what the hearing was about."

So that's a first rule. Remember the bottom line. I've usually elicited agreement with the statement that there are three rules in politics: "money, money, and money." Obviously, the link has to be spelled out in a precise set of facts, such as the number of cases of a sort that could be reduced, the average dollar cost per case without action as well as the cost of action, and the net benefit to taxpayers.

The second bit of advice when presenting findings to a policy maker: have a ONE PAGE summary of what you have to say. And remember the cardinal rule: "tell them what you are going to say, tell them, tell them what you told them."

Brevity, clarity, and where possible plain English.

An example. In discussing the effects of toxins on brain chemistry and behavior (e.g., rates of violent crime), it's easy to point out that the cost of incarcerating a violent offender has been roughly estimated at about \$25,000 per year. Reduce crime in a city by 100 offenses, and the first year the budget saves \$2,500,000. If reduction of crime continues a second year and sentences are for a number of years, the total savings balloon to \$7,500,000 (\$5,000,000 for the first year's non-offenders for whom 2 years of prison isn't needed plus another \$2,500,000 for the second year's reduced crime rate).

On the policy-maker side, the problems are often more serious. Simplistic concepts are used to refer to a complex pathway of causes and effects (of which not everything is known). The result is that your words can easily be misinterpreted. An example with toxins. I've heard policy-makers speak of "exposure" to a toxin to describe three different steps: presence of the toxin in the environment (in a "bioavailable" form); uptake of the toxin from the environment (whether by ingestion, breathing, or other pathway), and absorption (transmission to organs or cells where the toxin has harmful effects). The shift from step 2 to step 3 isn't automatic, since the body has systems for sequestering and excreting a toxin (of which the metallothionein proteins are an excellent example).

Failure to recognize the different steps matters because sometimes it is a COMBINATION of environmental insults (or of an environmental insult with a genetic mutant) that will result in absorption and harm to behavior or health.

There's no simple recipe for avoiding problems of communication. But it's very important to realize that policy makers or legislative committees are not the same as fellow scientists or even science journalists. So it takes a bit of care, and sometimes simple analogies.

Final example: instead of pretending that policy makers or journalists will understand an "interaction term" in an Analysis of Variance, I simply refer to the dangers of mixing scotch, bourbon, vodka and wine before driving: I've never had someone who didn't get the point of complex interactions that can't be reduced to a single cause (as many non-scientists imagine can be done).

FORUM OPINION

*The Concept of Culture in STS:
Problems Seen, Solutions Cited*

**Brendon Swedlow
Northern Illinois University**

As used in social studies of science, the concept of culture is most often associated with ethnographic studies of scientists working in their laboratories. Indeed, Karin Knorr Cetina titled her review of this research "Laboratory Studies: *The Cultural Approach to the Study of Science*," implying that laboratory studies were exhaustive of cultural approaches.ⁱ If this were so, it would be unfortunate, because social studies of science would then be saddled with the limitations of culture as conceptualized by most anthropologists. Laboratory studies are mostly (thickly) descriptive, mostly localized, rarely comparative, rarely theoretically driven. To remedy this problem, Cetina suggests that laboratory studies need to be done on a comparative basis, for the few comparative studies that exist indicate that scientific constructions take place "within epistemic (and national) cultures."ⁱⁱⁱ Unfortunately, concepts developed for analysis of individual laboratories are rarely generalizable across these cultures.

Andrew Jamison is among those who seek refuge from the particularism of laboratory studies in the study of national influences on science.ⁱⁱⁱ He isolates national biases, interests, and institutions as "components" for comparison of national influences on science, with biases linked to or influencing interests, and vice versa, via institutions. For

comparativists, these are significant steps in a productive direction. Yet the problems particularism creates for comparative analysis of cultural influences on science are not entirely solved by making national biases, interests, and institutions the "components" of comparison. Rather, particularism is displaced from laboratories to nations. While having gained points of comparison, we are still left with American science vs. British science vs. French science vs. German science vs. Swedish science vs. Danish science vs. Japanese science. One has to wonder if this is any better than trying to compare Joe's lab to Bill's lab to Mary's lab.

The challenge for those suffering from what Jamison calls his "comparative ambition" is to find a way to characterize specific, concrete social organizations in more general, abstract terms, so that the terms will have equal purchase on disparate social organizations. From this perspective, those interested in comparative study of science, technology, society, and/or policy need to direct their attention not to laboratories or nations or even science itself, but to the types of social organization of which laboratories, nations, and science are specific, historically contingent expressions. This is where Mary Douglas's theory and conception of culture promises to be very helpful, as more than a few scholars are recognizing. Thomas Gieryn, for example, has suggested that his search for "interpretive cultural categories" that allow "multiple and variable accountings" of scientific "facts and claims," and his desire to discover the relationship between these "cultural maps" and the constitution of authority, might productively be guided by Douglas's cultural theory.^{iv}

Douglas's conception of culture retains the idea that cultures are packages of interrelated and interdependent biases, interests, and institutions. But her conception lets go of historically specific elements of culture, so that instead of speaking of American "sports team" and Japanese "household" approaches to organizing high-energy physics labs, as laboratory studies do,^v she would, respectively,

refer to individualistic and hierarchical cultural approaches. By dropping the time, place, and personality contingent, and moving to this level of generality and abstraction, Douglas creates an analytical concept of culture that, with minimal “conceptual stretching,” can travel among countries as well as within them.^{vi} This conception of culture allows comparisons to be made among social organizations as far-flung as epistemic communities or as local as science labs as to the degree to which they are hierarchical, individualistic, egalitarian, or fatalistic. Some social studies of science relying on Douglas’s theory and conception of culture are cited below; others can be found in a bibliography of applications of cultural theory available from the author.^{vii} Please feel free to contact me.

Notes

ⁱ Karin Knorr Cetina, “Laboratory Studies: The Cultural Approach to the Study of Science,” in *Handbook of Science and Technology Studies*, Sheila Jasanoff, Gerald E. Markle, James C. Petersen, and Trevor Pinch, eds. (Beverly Hills: Sage Publications, 1994), 140 (emphasis added).

ⁱⁱ *Id.*, 158.

ⁱⁱⁱ Andrew Jamison, “National Styles of Science and Technology – A Comparative Model,” *Sociological Inquiry*, 57(2): 144-58, (Spring 1987). Reprinted in Sheila Jasanoff, ed., *Comparative Science and Technology Policy* (Cheltenham, UK: E. Elgar Publishers, 1997).

^{iv} Thomas Gieryn, “Boundaries of Science,” *Handbook of Science and Technology Studies*, 416-17.

^v In the American “sports team” approach to organizing high energy physics labs “the leader is like a ‘coach’ who has learned to locate highly skilled players and to design strategies for winning,” Cetina writes, while in “the Japanese ‘household’ approach...it is the responsibility of each member to keep the household and its resources intact and...status is not determined by competition but by age.” Cetina, 158.

^{vi} David Collier and James E. Mahon, Jr., “Conceptual ‘Stretching’ Revisited: Adapting Categories in Comparative Analysis,” *American Political Science Review* 87, 4 (December, 1993): 845; and Giovanni Sartori, “Concept Misformation in Comparative Politics,” *American Political Science Review* 64 (1970): 1033-53; Giovanni Sartori, “Guidelines for Concept Analysis,” in *Social Science Concepts: A Systematic Analysis*, Giovanni Sartori, ed. (Beverly Hills: Sage, 1984).

^{vii} Initial efforts to apply Mary Douglas’s “grid-group” cultural theory in STS can be found in Mary Douglas, ed., *Essays in the Sociology of Perception* (London: Routledge & Kegan Paul, 1982). As exhaustive a listing of such STS studies as is available can be found in a bibliography of cultural theory

applications in Aaron Wildavsky, *Cultural Analysis: Politics, Public Law, and Administration*, Brendon Swedlow, ed. (New Brunswick, N. J.: Transaction Publishers, 2005). This bibliography can also be obtained by emailing the author at bswedlow@niu.edu.

RESEARCH SUMMARY

Taking the Show on the Road: An “Americanist” Goes Abroad

Mark Stephan

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In the fall of 2001, when invited by my senior colleague, Ed Weber, to add my name to a list of applicants for a U.S. State Department grant, I was a bit intimidated about the decision. If we were to get the grant, the research would involve travel to Central Asia to work with some counterparts at a university in Uzbekistan’s capital city, Tashkent. To be frank, at the time I could neither spell Uzbekistan nor knew anything about the country. I was not sure how I could contribute to such an endeavor, especially given my limited training in comparative politics. Yet, partly for curiosity’s sake, I signed on to the application. The grant was accepted in the fall of 2002 and research began the following spring. I have never regretted my decision and am writing this article to urge others to take the same leap. After describing a bit of our work in Uzbekistan, I will turn to my arguments for why more of us that study science, technology, and environmental policy in the United States need to work farther a field.

Working with an interdisciplinary team of political scientists, rural sociologists, economists and agricultural engineers, I assisted with a project to evaluate “water user associations” (WUAs) in Uzbekistan. The closest equivalents we have to WUAs here in the U.S. are irrigation districts. Despite Uzbekistan’s tendency – both during Soviet times and in the post-Soviet period – to make centralized decisions, the creation of WUAs by the national government was an explicit attempt to decentralize decision-making, giving farmers more

control over local decision-making. These attempts at devolution – that began in 2002 – were meant to both increase the efficient use of water (a drastic need in a country that has lost much of the Aral Sea) and to do so in a way that bolstered agricultural productivity. The Uzbek government has been aware for a number of years that without improved use of water resources, both the economy and environment of Uzbekistan will not be sustainable.

The initial social science component of the research was focused on the organizational nature of these WUAs. The Uzbek reforms were predicated on the expectation that the creation of collaborative institutions embracing the basic tenets of the civic engagement model of decision-making would lead to positive policy outcomes for agricultural production and environmental sustainability. In our initial research, we focused our attention on seven WUAs spread throughout five regions of Uzbekistan and primarily on the major crops of cotton and wheat. We asked two main questions. The first question was basic: Are the new institutions producing the intended results? The short answer is that the results are generally positive, yet mixed, with three cases reporting improvements in both crop productivity and environmental sustainability, and four cases reporting some drop in productivity coupled with environmental improvement.

The second question sought to understand the variation in policy outcomes. What explains the overall policy performance of these seven WUAs, with policy performance defined as the ability to achieve the dual goals of agricultural productivity and improvements in environmental sustainability? In order to get at this, we tested three alternative explanations—the presence of formal institutions, physical wealth, or informal institutions (e.g., social capital). The short answer is that the policy performance of the Uzbek WUAs matches up far better with the informal institutions thesis, which does a markedly better job of explaining outcomes in these seven cases than the physical wealth

framework, and a better job than the formal institutions approach. We have more data to analyze, including an extensive survey of farmers in these seven regions, and time will tell what more we can glean from our results.

There are three reasons I would give to encourage other researchers to work outside the U.S. context (this argument is really meant for people who have kept their work within the U.S. context – those of you who work outside the U.S. do not need any convincing). First, work in a different domain allows opportunities for Americanists to reach outside the false dichotomy between American and comparative politics research. Theories and methodologies should have wider circulation, truly pushing the boundaries of generalizability. Well developed arguments within a U.S. context are tested in new ways when applied to countries with significantly different social and political histories.

Second, especially when it comes to working with scholars in the developing world, U.S.-based researchers have an opportunity to help build social science research skills for their counterparts in these countries. Our Uzbek counterparts in this case are not only trying to make sense of water user associations, but are also attempting to build their social science skill set. This is not to say there aren't very astute scholars working in Uzbekistan, but rather to say that there is always more to learn, and no matter what faults U.S. based research may have, much of the empirical work done here is quite advanced methodologically.

Third, there is the oft stated truism: the transfer of knowledge goes in both directions, and I quite likely learned much more from my work there than they gained from my contribution. Traveling abroad is itself a life lesson (trust me – try visiting a post-Soviet, moderate, Islamic country). Research abroad takes our scholarly training to a different level. My colleagues in international relations and comparative politics have been telling me this for years. I finally received the message when I took a chance and took my own show on the road.

RESEARCH SUMMARY

Community Environmental Conservation and Gullah Culture: Reactions to Development and Access to Sweetgrass for Basketmaking in Lowcountry South Carolina

Angela Halfacre-Hitchcock and Paul Hurley
College of Charleston

As part of our broad research agenda, “Changing Communities, Changing Ecologies”, we are seeking to understand better the responses of communities to ecological and societal change in the “Lowcountry” (coastal plain) region of South Carolina through a series of regionally-focused cases. For example, in one of these cases, we are examining Sweetgrass (*Muhlenbergia filipes*) basketmakers and the way this community is adapting to changes to this practice brought on by increased urbanization in the Charleston, South Carolina metropolitan area. This case is of special significance for those interested in cultural comparisons of how local communities react to scientific and ecological understandings of resource access.

Sweetgrass is a long-stemmed grass used by basketmaking communities throughout parts of the South Carolina Lowcountry (Coakley 2006). These communities are African-American and the descendents of former enslaved Africans and/or Gullah. The term ‘Gullah’ describes a culture that has developed from a shared ancestry of peoples from African regions subsequently relocated to the Coastal Lowcountry in South Carolina as part of the Atlantic slave trade. This culture includes unique speech, music, dances, religious beliefs and practices, family social units, storytelling, arts and crafts (especially sweetgrass baskets), and a historic reliance on the use of coastal resources (in particular, sweetgrass) (see Pollitzer 1999). Central to this culture is an intimate relationship between people and the land, as illustrated by the connection between sweetgrass ecology and basketmakers. Rapid development of coastal

environments has erased examples of this connection (e.g., Hargrove 2005).

Historically, sweetgrass plants were probably more widespread in South Carolina than at present (especially along the coastal plain), but the grass and its habitats are becoming increasingly rare, likely due to changes in development patterns and access to private and public lands (Burke et al 2003, Cansler 2006, Hart et al 2004). Altered disturbance regimes (e.g., fire suppression, the introduction of non-indigenous plants, and development) have replaced sweetgrass and other native plants throughout the South Carolina Lowcountry. Preservation of the sweetgrass basket art form, and the weaver community’s culture, is dependent upon maintaining access to the raw materials included in the basketmaking (primarily sweetgrass and three other materials commonly known as: black rush, long leaf pine, and palmetto) and ensuring a sustainable market for the sale of these baskets.

Charleston’s emergence as an increasingly popular tourist destination and more recently, the expansion of residential development in formerly rural areas (e.g., South Carolina Sea Grant 2004) threatens resource access and limits the physical areas in which basketmakers can sell their products. The greater Charleston area has experienced relatively sustained commercial and residential development for at least the past two decades (South Carolina Sea Grant 2004). Much of this expansion is driven by the close proximity of communities to the ocean, ‘natural’ vistas, and diverse cultural activities as well as recreational opportunities such as golf, fishing, hunting, and birding. Given that this amenity-related development is also partially responsible for the concern basketmakers have for the continuation of the art form (Hart et al. 2004), our research focuses on the emerging (and related) discussions about growth management in the area. By examining this discourse, documenting changes in the community, and the impacts of development on sweetgrass ecologies, our research provides us the opportunity to study historical and

contemporary land use policy, local power relationships, aspects of racism relative to land development and growth management, and trajectories of ecological and community change in Charleston.

Building on research begun in 2002, we are able to explore the role that habitat limitation and loss and shifts in private ownership have had within the Gullah community, and also how growing concern has mobilized the conservation community in the area as a whole. Our preliminary research indicates that little of this discussion about the impacts of development has focused on the links between conservation (whether through public or private approaches including those by land trusts and “conservation developments”) and the socio-political, economic, or ecological outcomes for communities in the region, including those of African American basketmakers.

Our current study as well as previous work relies primarily, but not exclusively, on qualitative methods and data sources, including semi-structured in-depth interviews with basketmakers and local elected officials, participant observation at public meetings and workshops, and document analysis of local press coverage, governmental documents, and stakeholder statements. We are primarily using content analysis to examine these qualitative data. To broaden our perspective beyond strict qualitative sources, we also are collecting survey and mapping data to improve our understanding of sweetgrass habitat, distribution, and changes. We are using Geographic Information Systems (GIS) to analyze these data. From a policymaking perspective, the ramifications of our research are that nontraditional policy frameworks (such as private-public partnerships) may be required to address the community concerns, especially for those culturally marginalized.

References

Burke, M., A. Halfacre, and Z. Hart. 2003. Decline of sweetgrass spurs restoration of coastal prairie habitat (South Carolina). *Ecological Restoration*. 21:50-51.

- Cansler, G. 2006. Future of S.C. sweetgrass uncertain: Urban sprawl along the coast reduces availability of basket reeds. Available: <http://carolinareporter.sc.edu/archive10-29-03/online10-29-03/29sweetgrassav-.html> Last accessed: February 9, 2006
- Coakley, J. 2006. Sweetgrass baskets and the Gullah tradition. Arcadia Publishing: Charleston, South Carolina.
- Hargrove, M. 2005. Reinventing the plantation: Gated communities as spatial segregation in the Gullah Sea Islands. Dissertation University of Tennessee, Knoxville, Tennessee.
- Hart, Z., A. Halfacre, and M. Burke. 2004. Community participation in preservation of lowcountry south carolina sweetgrass (*muhlenbergia filipes* [m. A. Curtis] j. Pinson and w. Batson) basketry. *Economic Botany* 58(2): 161-171
- Pollitzer, W. 2003 The Gullah People and their African heritage. The University of Georgia Press: Athens, Georgia. South Carolina Sea Grant. 2004. The coast's great leap. *Coastal Heritage*. Fall, 19:2.

RESEARCH SUMMARY

Comparing Wetland Restoration Policy Implementation in Europe and the United States

Katharine Owens

University of Twente, Netherlands

As an American working towards a PhD in the Netherlands, I had an interest in incorporating my native country and my new home in my research project. I study the implementation of environmental policy, applying this empirically to the field of wetland restoration policy. As the project developed, comparing the Netherlands to the entire United States did not make sense for several reasons including vast differences in size and scale, as well as that wetlands policy in the United States differs from state to state. Though the United States has the overarching goal of “no net loss” for wetlands, states decide whether to enact more specific state-level policy. A good compromise was to compare a single US state to the Netherlands. After much consideration I chose the state of New Jersey due to its similar population density. As a foreigner, I often hear the phrase “*Nederland is vol*” (The Netherlands is full). In the Netherlands, the

issue of a lack of space plays into many aspects of public policy, including nature policy. I then chose two more states (one from the European Union and one from the United States) with low population density as a contrast to the Netherlands and New Jersey: Finland and Oregon. In subsequent talks with wetland experts in New Jersey, I learned that population density is not always a critical issue of concern. However, I still believe it will be interesting to better understand how space, or lack of space, might impact decisions regarding wetland restoration implementation.

I use a theory developed by Dutch researcher Hans Bressers to examine the implementation of environmental policy. The contextual interaction theory highlights three actor characteristics: motivation, information, and power balance to better understand their effects on the likelihood to implement at all (policy output), and if applicable on the adequacy of that implementation (policy outcome) (Bressers, 2004). Unfortunately the scope of my research will not allow an ecological measure of adequacy. I do not have the resources to thoroughly examine long-term ecological sustainability. Instead I focus on adequacy from a policy perspective: whether implementation as discussed and agreed upon by actors is enacted. This research project has two components: a large-scale study of 48 cases (12 each in Oregon, Finland, New Jersey, and the Netherlands) and five in-depth case studies. Of the in-depth cases, three are in the Netherlands and the remaining two will be chosen as the research progresses. The large-scale study follows the parameters shown in Table I. For each of these cases I interview two individuals, representing the policy implementer and policy target. I use a semi-standardized interviewing method which entails asking predetermined questions in a systematic manner but also includes an expectation that the interviewer probe beyond answers given (Berg, 2001). For the in-depth case studies I use the same interview instrument but interview more individuals, depending on the number of stakeholders involved in the case. Among other things, I ask questions about the

organization, the individual's personal and professional motivations regarding the project, how information is shared among actors, if there are significant lapses in information, and how decisions were made.

I have completed one in-depth Dutch case study which served as a pilot case to define the variable measurement and analysis. I am currently collecting data on the remaining two in-depth Dutch cases. For the large-scale study, I have spent the month of March interviewing actors in the United States, and have completed 33 of 48 interviews. In April I embark on a twelve-day trip around the Netherlands to visit restored wetlands and speak with actors about these cases. I have applied for funding to visit Finland and collect data later this summer. Considering the limited amount of data, I cannot present conclusive evidence but do have anecdotal evidence about how the countries differ. When designing this project I imagined that American cases would more often be solved through the judicial system and Dutch cases would more often be addressed through consensus. The Dutch often use what they call the *polder model*, referring to the consensus needed to build the large-scale structures necessary to exist in a landscape that for the most part should be underwater. In the simplest terms I imagined litigation could be more harmful to wetland restoration projects, as it is costly and time consuming. I also imagined that consensus would enable fair and considered solutions. However, I found in one Dutch case that nature supporters used the judicial system to protect a wetland, while in another case supporters of intense recreation used the goal of consensus to stall decision-making leaving the debated area less protected. In the American cases I have encountered a great deal of consensus and little or no litigation.

This research project seeks to produce insight into the way actors influence policy implementation, using the contextual interaction theory to highlight barriers to implementation for a given situation. This allows practitioners to actively and systematically work towards eliminating these

barriers, potentially strengthening implementation success.

Table I. Structure of the large-scale study

Likelihood to implement at all (n= 48)	Adequacy of implementation (n= 32)	High Pop. density cases	Low pop. density cases
Discussions take place and decision made to not implement		4 NJ 4 NTHDS	4 OR 4 FNLD
Discussions take place and decision made to implement	Decision made to implement, and was implemented	4 NJ 4 NTLDS	4 OR 4 FNLD
	Decision made to implement, and was not implemented	4 NJ 4 NTLDS	4 OR 4 FNLD

References

Berg, B.L. (2001). *Qualitative Research Methods for the Social Sciences*. Boston: Allyn and Bacon.
 Bressers, J.T.A. (2004). Implementing sustainable development: how to know what works, where, when and how. In William M. Lafferty (Ed.), *Governance for Sustainable Development: The Challenge of Adapting Form to Function* (pp. 284-318).

identify the causes and consequences of similarities and differences in the ways science and regulation interact; and therefore (5) generalize about science in the regulatory process.

This research summary describes a recently initiated effort to create the research infrastructure that will allow the foregoing questions to be answered and reports initial findings on the relative regulatory “precaution” of the US and Europe. The first phase of this project was completed in 2003 at Duke University’s Center for Environmental Solutions with the construction of a “risk universe” of nearly 3000 risks assembled by aggregating “risk lists” found in the literature on risk perception. This risk universe is composed of 18 risk categories: (1) crime and violence, (2) alcohol, tobacco and other drugs, (3) medication and medical treatment, (4) transportation, (5) accidents not elsewhere classified, (6) recreation, (7) war, security and terrorism, (8) toxic substances, (9) food and agricultural, (10) pollution, (11) energy, (12) political, social and financial, (13) ecogeological, (14) global, (15) human disease/health, (16) occupational, (17) consumer products, and (18) construction.

In a second phase of this project, we drew a random sample of 100 risks from our risk universe in order to compare US and European regulatory approaches. We were particularly interested in the relative “precaution” with which the US and Europe regulated these risks. We sought information on the relative stringency of regulation in Europe and the US and summarized our findings in the form of a score for each risk and year from 1970 through 2004. By far the most common pattern we identified (accounting for a third of the risks) is that the US and Europe are equally precautionary over the 35 year period. Patterns reflecting a difference but no change in the direction of relative precaution are also common, accounting for 20 percent of the risks we examined. These cases are almost exactly divided between the 11 cases where Europe appears to be more precautionary over the entire period and nine cases where the US appears to be more

RESEARCH SUMMARY
*Science in the Regulatory Process:
 Studying a Representative Sample of U.S. and European Cases*

Brendon Swedlow
Northern Illinois University

What if STS scholars could study a representative sample of cases of science in the regulatory process? What could we learn that we do not already know? Such a study would, I think, allow us to (1) validate (and contextualize) existing understandings (which are based on cases of unknown representativeness); (2) characterize the full range of ways in which science and regulation interact; (3) specify the frequency with which science and regulation interact in those ways; (4)

precautionary. Of the cases in which there was a change in relative precaution, the change is more often toward greater relative precaution in Europe, but even here many cases show the opposite result. The direction of movement was toward greater relative precaution in Europe for 21 cases, and toward greater relative precaution in the US for 14 cases (this paragraph adapted from Hammitt, et al., 2005, and Swedlow, et al., 2006).

We have not yet researched the relationship between scientific understandings of risk and regulation of these 100 risks in the US or Europe. This is an objective of a third phase of this project, which through structured, focused, in-depth study, aims to assess the causes, processes, and consequences of regulatory similarities and differences across these risks. There are a variety of ways such research can be pursued, but due to the scale of this undertaking all of them will require some form of collaboration. The collaborative research model I am “test-driving” at Northern Illinois University relies, first, on my collaboration with students taking regulation-related courses. I have developed and taught three courses in which students are invited to research papers on the regulation of these 100 risks in Illinois. If students can do the job – and in my experience so far, they can – I hope, second, to collaborate with other faculty who will collaborate with their students in researching the regulation of these risks in the states and countries where their universities are located. These anticipated faculty-student collaborations will allow science-in-the-regulatory-process comparisons to be made within and between the US and Europe.

The NIU collaborative research model gets a lot of research done for little money while fulfilling teaching duties. It exploits comparative advantages in “local knowledge,” treating universities as social science research stations. It allows continuous updating, the refinement of past findings, and the accumulation of comparable, representative information about science in the regulatory process. STS scholars can contribute to this research through

this model or in a variety of other ways, utilizing the comparative advantages of their particular knowledge and institutional base, and the resources available to them to build out the comparative portrait of science in the regulatory process. STS scholars would appear to be particularly well-situated to investigate the role scientists play in regulatory advisory processes and as expert witnesses supporting regulatory litigation (for my efforts in these and related areas, see Swedlow, 1994, 1995a, 1995b, 2002a, 2002b, 2003, and my forum opinion piece in this issue of *STEP AHEAD*). If you are interested in learning more about this research project, please contact me at bswedlow@niu.edu.

References

- James K. Hammitt, Jonathan B. Wiener, Brendon Swedlow, Denise Kall, and Zheng Zhou, “Precautionary Regulation in Europe and the United States: A Quantitative Comparison,” *Risk Analysis*, 25, 5, 2005: 1215-1228.
- Brendon Swedlow, Denise Kall, Zheng Zhou, James K. Hammitt, and Jonathan B. Wiener, “Precautionary Regulation in Europe and the United States: A Comparative Analysis of 100 Representative Risks, 1970-2004,” in *The Reality of Precaution: Comparing Risk Regulation in The US and Europe*, Jonathan B. Wiener, Michael D. Rogers, James K. Hammitt, and Peter H. Sand, eds., Cambridge University Press, 2006.
- Brendon Swedlow, “Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest,” *Duke Environmental Law & Policy Forum*, 8, 2 (Spring), 2003: 187-278.
- “Toward Cultural Analysis in Policy Analysis: Picking Up Where Aaron Wildavsky Left Off,” *Journal of Comparative Policy Analysis*, 4:3 (November), 2002b.
- “Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest, Ph.D. Dissertation, University of California, Berkeley, 2002a.
- “Reporting Environmental Science,” in Aaron Wildavsky, *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues*, Harvard University Press, 1995b.
- “Dioxin, Agent Orange, and Times Beach,” with Aaron Wildavsky, in Aaron Wildavsky, *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues*, Harvard University Press, 1995a.
- “Cultural Influences on Policies Concerning Mental Illness,” in *Politics, Policy & Culture*, Dennis J. Coyle and Richard J. Ellis, eds., Westview Press, 1994.

BOOK REVIEW

Paul Hallacher, 2005. *Why Policy Issue Networks Matter: The Advanced Technology Program and the Manufacturing Extension Partnership*. New York: Rowman & Littlefield Publishers, Inc.

Hugh Heclo's influential introduction of the term *policy networks* as a way to describe the mechanisms of policy inputs and outputs changed the way the policy process was conceived in 1978. Since then, political scientists have been working to understand how such networks function. Paul Hallacher's new research compares two different policy network processes that have occurred within *cooperative technology policy*. This term describes programs in which government takes a stronger role in encouraging technological and industrial development.

Original cooperative technology initiatives in the 1960s and 1970s came out of Cold War concerns and early industrial competition with the Japanese. Proponents of such programs see them as effective in ensuring that the United States (or any country) stays competitive on an international level. Detractors argue that the programs are tantamount to corporate welfare. Hallacher executes a comparative case study of two federal government programs: the Advanced Technology Program (ATP) and the Manufacturing Extension Partnership (MEP). The ATP demonstrates the characteristics of a traditional *subgovernment* structure and the MEP as a more loosely functioning *policy issue network* (both can be conceived of more broadly as policy networks).

Hallacher's research is useful because little is understood about *effects* of networks on policymaking. There is a plethora of theoretical work, but minimal research where theories have been tested, applied, or analyzed in more specific detail. Hallacher's inquiry accomplishes two important tasks. We are reminded that extensive

differences exist between policy processes, and the importance of differentiation between policy subsystems is reinforced. Hallacher also presents a particularly succinct and useful overview of different approaches to the policy process over the last 35 years.

The ATP promotes economic growth through the development of high-risk technologies. Its roots in federal policy date back as far as the 1960s. This industrial technological development promises commercial benefits for the nation through support of these long-term and/or large-scale projects. It helps advance ventures that need additional economic support to achieve competitiveness.

The MEP is set up to bring newer technology to small and medium size companies that don't have the resources to keep up with innovative technology. Its origins on a national scale came in 1988 and were derived from a variety of state programs that go back as far as the 1950s. Both programs had a variety of proponents and detractors, and significant variation in program funding from their inception until the present.

The subgovernment process used to describe ATP is derived in part from early literature on "iron triangles." It is characterized by fewer participants, less interaction, less conflict, and less openness. Subgovernments can become the subjects of occasional high levels of explosive conflict similar to the punctuated equilibrium events described by Baumgartner and Jones. Alternately, the policy issue network (MEP) has extensive participation and interaction by a wide variety of stakeholders who are engaged in ongoing intermediate levels of conflict.

Hallacher demonstrates a relationship between these variables (participation, interaction, conflict, openness) and two outcomes. First, he shows that policy learning is increased in the context of a policy issue network. The ongoing participation, increased interaction, and constancy of intermediate conflict create more information flows between

actors, and create incentives for consistent attempts to persuade other actors within the network. Further, actors within a policy issue network are more likely to change their minds concerning aspects of a program, or concerning the program as a whole. Alternately, in a subgovernment situation, policy learning is more static because decisions are made and derived from more traditional and hierarchical government actors such as an influential senator's office or key players within a government department.

His second variable of interest is the degree of stability that a policy system has in the face of conflict or attempts to change or reduce the policy. Again, policy issue networks are seen as inherently more stable because more actors are involved, more communication exists in the network, and more sectors are represented to resist political threats (e.g., state government, Congress, interest groups, activists, etc.). When both ATP and MEP were attacked during the 1994 Republican "revolution" of the 104th Congress, MEP had significantly more support, especially from actors at the state level who wanted to make sure the program was not weakened.

While I am convinced of the evidence Hallacher has provided, others who are more skeptical of a network approach might be critical of some of the analysis. For instance, Hallacher analyzes single variables, rather than several variables at a time. Full multiple regression, with accompanying statistical tables, would make for a more persuasive argument. The causal model is not fully defined; it is implied, but convincing counterfactuals exist. One is never sure whether certain variables are meant to be understood as independent or dependent. Generally, Hallacher only asserts that a relationship exists amongst variables and the two kinds of policy systems.

Second, Hallacher presents some evidence that seems thin. The main body of data is derived from 65 questionnaires returned from an initial body of 166 actors (39% response rate). Further, when

Hallacher states that the evidence supports his hypotheses, it sometimes does so only minimally. For example, p. 109-112 discusses differences between subgovernments and policy issue networks in policy design methods. Subgovernments are supposed to be more neutral, and involve a more bureaucratic process, whereas policy issue networks are characterized by greater idea exchange and more discourse that is persuasive. His evidence for this claim is three extensive interview excerpts and approximately ten reported observations from other interviews. None of these participant observations is derived from comparative analysis between the two programs. Further, none of the evidence shows that ATP was not characterized by intense persuasive discourse, or that MEP did not have primary involvement by "neutral" bureaucrats.

Nonetheless, Hallacher's detailed micro-level analysis of these two policy systems provides a new level of detail much needed in the literature. First, it gives a thorough history of cooperative technology policy in the United States during the last two decades. It begins the process of comprehensively differentiating between different kinds of policy subsystems. Even more importantly, it starts to unpack the black box mechanisms that are part of policy processes. It allows us to begin to understand the different kinds of outcomes that we might expect from such structures. For those interested in interest groups, technology and scientific policy, and/or networks, it is an effective and persuasive addition to the burgeoning work that continues in the policy network arena.

Reviewed by Stephen Bird, Political Science Department, Boston University

BOOK REVIEW

Andrew Chadwick, 2006. *Internet Politics: States, Citizens, and New Communications Technologies*. New York: Oxford University Press.

In this impressive volume Andrew Chadwick presents what may be the most comprehensive textbook on the impact of the Internet on society. Like Robert Klotz's *The Politics of Internet Communications* (2004), the book is divided into sections that focus on the context of the Internet, institutions effected by the Internet, and a landscape of Internet policy issues. Part One considers the nature of technology, the history of the Internet, and the digital divide. Part Two examines the impact of the Internet on democracy, community, interest groups, social movements, political parties, elections, and public bureaucracies. Part Three chronicles the emergence of a global information regime, conflicts over domain names, surveillance and privacy, media ownership, blogs and the production of news, file sharing, and open source software.

The distinctive feature of *Internet Politics* is its extensive use of the professional literature to frame its examinations of societal, technological, organizational, and international topics. Its nuanced and sophisticated treatment of the literature will make the book a valuable reference for those engaged in investigations of specific Internet subjects. Chadwick is particularly successful in reviewing the disparate work of others while still pushing ahead to develop his own insights and perspectives. The volume concentrates on events that occurred in the United States and the United Kingdom, and each chapter ends with useful suggestions for further reading and review questions for students.

From his comparisons of events in the United Kingdom and the United States, Chadwick

highlights, for example, differences in the conduct of Internet campaigning in the two countries and the dissimilar attention given by governments to the Internet as an instrument to improve service delivery and as a mechanism to enhance policy deliberation. With frequent citations to theorists and researchers, Chadwick assesses, for example, the features of virtual communities and identifies areas of needed research such as the linkage between civil society and formal policymaking.

The section of the book that focuses on the impact of the Internet on democracy, politics, and government operations is the most informative and discerning. Chadwick's analysis of e-democracy is framed by the contrasts between Robert Putnam's understanding of social capital and Jürgen Habermas's concept of the public sphere. To investigate interest groups and social movements, he presents case studies of Environmental Defense and MoveOn and draws as well on the work of Lance Bennett and Bruce Bimber. Chadwick proclaims the 2003-2004 presidential election the first real Internet campaign in the United States and stresses the importance of primaries, mobilization of voters, campaign finance, and the professionalization of campaign consultants. In discussing the use of the Internet by government, he notes that political elites are gaining control of an instrument that is "subject to the central demands of contemporary politics, namely presentational professionalism, disingenuous statistical detail, and softer forms of strategic communication such as imagery, symbolism, and strategic language use." (p.202) While no single theme dominates the text, Chadwick emphasizes the significance of the organizational changes produced by Internet use, the tendency of the Internet to supplement and compound traditional practices rather than supersede them, and the importance of contextual factors in determining the impact of the Internet in specific situations.

Chadwick does such a good job with the topics on which he concentrates, that I regretted that he did not devote fuller attention to policy making issues

and political economy themes. Despite the clear and imaginative prose, I also wondered if the treatment of some issues in the text might overwhelm the capacities of undergraduates to benefit from his work. Despite such thoughts, *Internet Politics* is a valuable piece of work that will provide a foundation for a new round of teaching and learning about the impact of the Internet.

Reviewed by Richard Lehne, Department of Political Science, Rutgers University

BOOK REVIEW

Darryl M. West, 2005. *Digital Government: Technology and Public Sector Performance*. Princeton: Princeton University Press.

This book has a number of virtues. It provides a broad look at the growth of electronic government (e-government, or e-gov) over some critical years in its early growth and development. The author conducts the analysis within a framework of the qualities or values he thinks e-government should provide, and judges the development of e-government from the perspective of this framework. While his primary focus is on U.S. e-government evolution, he also presents data and analysis of how governments around the world are responding to the Internet.

West gathered data from many government websites in the U.S., across layers of government (federal, state and local), branches of government, and geographic areas. The analysis was based upon a consistent set of elements sought on each website evaluated. The careful methodology may give the reader confidence in the book's findings. While there are many interesting findings and observations, West's definitions and his choice of critical characteristics and goals for e-government are not obvious, and not sufficiently defended as the theoretical basis for evaluation.

The author asserts that there are four general stages of e-government development:

1. The billboard stage
2. The partial service-delivery state
3. The portal stage with fully executable and integrated service delivery
4. Interactive democracy with public outreach and accountability-enhancing features.

These stages, he says, show where government agencies are on the road to transformation.

The initial focus is the scope of e-government, and the degree to which this technology has transformed government and how society relates to government. He cites several writers who predicted that digital government would transform the efficiency and transparency of government, as well as citizen trust and participation in democratic government. He poses the question of whether e-government has met the expectation of complete change in character and condition of the system, an "epochal breakthrough." He considers the extent of change with respect to what he calls key characteristics, and the speed with which change has occurred, and concludes that we have not seen a "transformation." He offers some reasons why the change has been slow and incremental.

In discussing at some length why he judges that e-gov has not brought transformation (i.e., dramatic and swift changes), he emphasizes qualities and failures within bureaucracy—for example, bureaucratic foot-dragging and the fact that government officials have focused on less than optimal goals: "Government planners are incorporating elements that serve the middle class and make it easier to access public sector services, but are not using the Internet as a tool for system transformation. The vision is technocratic, rather than citizen-empowering." (p. 12)

He recognizes the importance of financing in order to achieve rapid technological change, and notes the lack of funding to support e-gov projects. Funding new initiatives in government raises complex issues across branches of government that are not essentially "bureaucratic" in nature and are not adequately explained by reference to foot-dragging

or lack of vision by those who control websites. More importantly, West talks about citizen attitudes and issues of trust, but he never considers whether or the extent to which citizen attitudes and practices influence—or should influence—the pace of government transformation. One might insist that government should change in tandem with public needs, perceptions and use patterns. Lack of speed in the transformation, which seems so important to the author's evaluation, is not a determinative aspect of successful transformation. The slowness he seems to criticize might be necessary and beneficial to bring about the changes West champions.

West's evaluative framework asserts that the highest stage of e-gov is to empower citizens. He tells us that "the central virtue of the Internet" is "its ability to enhance the performance of democratic institutions and improve the functioning of democracy." (p.10) He does not ever defend this assertion. His own research shows that e-government is not more robust among democratic regimes, which might lead one to think about the potential for propagandistic uses of e-gov. Even if one assumes that e-gov is based on good intentions and open access goals, there are problems with using it to shape policy. Within the U.S., his research shows that the middle class, the more educated, the more affluent are the major users of the Internet, yet West never discusses the distortion of democracy that would result from using website feedback to guide policy. 'Citizen empowerment' based on narrow cohorts of citizens would not be a clear boon to democracy. An understanding of who accesses the Internet, and particularly government sites, should be a major consideration for both defining the proper goal of e-gov and assessing the expected or desired speed of change. One must ask whether citizen empowerment should be the standard for evaluating e-gov in these early years of its evolution, as compared to seamless, cheap information and service delivery. West does not give sufficient credit to the power of information itself (rather than feedback channels for public comment). In democracies, the free flow of

information is an essential ingredient for an informed citizenry, which underlies true democratic choice. At the very least, based on his own understanding of who uses the Internet, his citizen empowerment goal raises problems of representation and balance which are never mentioned, much less probed. Even if the percentage of Internet users were larger (and it has grown further since this book's data were gathered), users of e-government sites might represent only certain segments of society. Thus, if government agencies sought to 'empower citizens' in this way, formidable methodological complexities in gathering, sorting, weighing feedback from the Internet would have to be resolved – which the author also does not mention.

It is noteworthy that one key tool that seems to speak to citizen involvement has been implemented, perhaps after the data gathering for the book was over, that is, the federal e-Rulemaking site. This new tool focuses on government proposals that, prior to this new website, were published for public comment in the *Federal Register*. The e-Rulemaking site vastly expands access to what has traditionally been the realm of a small elite who specialized in watching for, and commenting on, proposed federal rules. It dramatically expands the possibility for interested groups and citizens to learn about and provide comment (or counter evidence) on matters of concern to them. Those who cannot afford to keep constant watch over the *Federal Register* for the first time can make their voices heard. This points to another limiting factor of this study: the timeframe being evaluated is quite short, and very early in the development of Internet, and of e-government activities; it is not prudent to draw strong conclusions from e-gov websites during these early years.

Reviewed by Odelia Funke, U.S. Environmental Protection Agency

BOOK REVIEW

Vivienne Bennett, Sonia Dávila-Poblete, and María Nieves Rico (eds.), 2005. *Opposing Currents: The Politics of Water and Gender in Latin America*. Pittsburgh: University of Pittsburgh Press.

The three scholars editing this volume have put together an excellent collection of case studies, plus their own analyses, both of which would have benefited from a political science overview. Their primary objective is "to demonstrate that a gendered perspective is essential for successful water resource management" (p.2), and their vehicle for this demonstration are eight case studies from Mexico, Bolivia, Costa Rica, Peru, Ecuador and Argentina. As with most edited volumes of case studies, the quality varies, but each case does illustrate the crucial importance of being sensitive to gender differences in the implementation of water management plans.

The introductory chapter of the book frames the discussion around the impact of neo-liberal policies in Latin America, particularly the privatization of utilities during the 1980s and 1990s under the direction of such international agencies as the World Bank, the Inter-American Development Bank, the International Monetary Fund and Latin American governments. As Bennett notes in her introduction, "a huge gap exists between international policy formulations and local level implementation" (p.4). The choice of case studies, primarily by sociologists, is clearly slanted toward the implementation side of this gap. A political science perspective on international policymaking, with some discussion predicting recent shifts to the left in governments throughout Latin America would have strengthened the analysis. The two chapters which were closest to this broader perspective (and the strongest case studies offered, in this reviewer's opinion) were by Rhodante Ahlers, in her excellent comparison of diverse reactions to water policies in Mexico and Bolivia, and the companion chapter by Rocio Bustamante, et

al. regarding the Bolivian "water war" that occurred in 2000, in which women were key activists in a successful protest against privatization. This protest rose to the level of a "social movement" in Bolivia and can be seen as a preview of the election five years later of indigenous socialist, Evo Morales.

Three chapters offer case studies of implementation, including tips on effective (gendered) ways to transfer technology and manage water equitably in communities. For instance, the authors note that water use in the household has been seen as the "private, domestic" sphere of women; whereas, water use for irrigation is the more "public, productive" sphere of men (p.14). But it is important to include both genders in discussion of both domains, because increasingly women *are* the farmers of rural Latin America, as male out-migration to cities and to the U.S. intensifies. One brief example of why it is important to address gender differentiation emerged in the Ecuador case, where women voiced their reluctance to irrigate at night because they feared gender-based violence in the dark, which was less of an issue for men. Clearly, women need to be active participants alongside men when their community is designing a plan for shared water use.

The closing chapter nicely summarizes lessons from the case studies. In the editors' closing paragraph a tantalizing comment is made about the importance of "formal structures" such as governments that will advance gender equity (p. 207). It would have greatly enhanced this interesting collection if it had offered some hints about the electoral shifts to the left in Latin America that were just around the corner, and which may change policies regarding water distribution in dramatic ways.

Reviewed by Anne Hallum, Stetson University

BOOK REVIEW

Sheldon Kamieniecki, 2006. *Corporate America and Environmental Policy: How Often Does Business Get Its Way?* Stanford: Stanford University Press.

There is little question that business plays a significant role in environmental policymaking and implementation and that many find its influence to be excessive. Business groups often are deeply involved in the policy process at every level of government, and they seem to win a lot of the time. This is surely the suspicion of environmental groups, particularly during the administration of George W. Bush.

It is surprising, however, that there has been so little rigorous analysis of the core questions that anyone interested in this topic should raise. Why do business groups take the positions that they do? How do they influence the public policy agenda and media coverage of key disputes? How much do business groups agree among themselves and how often do they go in different directions? What particular political actions do business groups take and why? Perhaps most important, to what extent are such groups successful in influencing the direction of environmental policy, and what factors condition their success? Sheldon Kamieniecki's new book attempts to answer such questions. His analysis extends to all three branches of government, a rarity among scholarly studies of group influence, and it covers the agenda setting stage of the policy process as well as direct policymaking.

Kamieniecki's research strategy employs quantitative analysis and the use of carefully considered case studies, along with the incorporation of a theoretical framework that draws from diverse work in the field. All this permits a much more nuanced and balanced interpretation than one usually sees about the role of business in environmental policymaking. The scholarship in the book is of high quality and the reader is led

through a clear explanation of the substantive issues in the field, the methodological challenges of studying business influence on environmental policy, the virtues and limitations of both quantitative and qualitative analysis, and the pertinent literature in a wide array of subject areas—from interest group actions to corporate environmental behavior.

The quantitative analysis is unexpected in a work of this kind and it enables the author to generalize from his findings in a way that is unusual for studies of interest groups. Kamieniecki is quite correct to observe that his findings “directly challenge prevailing assumptions both in- and outside the scholarly community about the regularity of business involvement in agenda building and policymaking as well as the ability of business to influence government decisions concerning pollution control and natural resource management.” He finds that business does not always get involved in policy disputes, that business groups frequently disagree among themselves, and that business by no means always wins. Such findings shift the emphasis of scholarly inquiry to the conditions under which business does or does not get involved and why it is or is not successful in different government venues and varying conditions.

Kamieniecki puts his study firmly in the larger context of interest groups and environmental policymaking as well as agenda setting. In Chapters 2 and 3, he skillfully reviews existing theories and findings in these literatures, and uses them to establish and justify the research design of the book. Chapters 4 and 5 present a variety of original quantitative data, including a comprehensive review of congressional action on the environment from 1970 to 2000, business intervention in the rulemaking process in federal agencies, and business involvement in the courts. Readers may find they are not entirely persuaded by the array of evidence included here, but Kamieniecki is careful to lay that evidence out, defend his methodology,

and make clear the many assumptions behind his research strategy.

The book then turns to six case studies of business lobbying presented in two chapters to more fully explore findings from the quantitative analysis. A final chapter in the book summarizes the findings, speaks to the strengths and weaknesses of the study, identifies both the practical and theoretical implications, and sets out an agenda for further research.

Many will find the six case studies to be especially intriguing; they also may reach different conclusions about just how successful business groups were in these instances. The cases cover pollution control (PCBs in the Hudson River, sulfur dioxide emissions and acid rain, and climate change) as well as natural resources (the Mining Law of 1872, restoration of the Florida Everglades, and efforts to protect the northern spotted owl in the Pacific Northwest). The cases are presented in an informed and engaging manner and offer a balanced assessment. What is especially gratifying is that readers are given enough information to disagree with Kamieniecki about the extent to which business gets its way. In the case of GE and the Hudson River, for example, I found myself not entirely persuaded that GE lost the battle, even if it did eventually agree to clean up the contaminated sediments at considerable expense. One could argue that it also was successful in the sense that it managed to delay that cleanup decision for a very long time, and thus saved considerable money. Similarly, although its media campaign in the end did not alter the outcome, it probably won GE a number of critical allies, many of whom helped the company fight state and federal efforts to impose Superfund status and the costs associated with it. The combination of quantitative and qualitative analysis is part of a refreshing trend in some of the best recent work in the field, such as *Swimming Upstream*, by Paul Sabatier and his colleagues (MIT Press, 2005). In part for that reason, many will find food for thought in this volume even if their research is not focused directly on the role of

business groups. The book's clear organization and accessible writing also should make it appealing to students. It should be said as well that *Corporate America and Environmental Policy* joins a number of new works on interest groups and the environment, including Christopher Bosso's *Environment, Inc.* and Robert Duffy's *The Green Agenda in American Politics*.

In sum, Kamieniecki's book advances understanding of the role and influence of business interests in environmental policy and provides a unique and valuable assessment of the complexities of the process. In doing so, it should help other scholars frame appropriate research questions and strategies to amplify the work presented here and some of the necessarily tentative conclusions that are reached.

For what it is worth, I should offer a disclaimer. Kamieniecki and I are co-editors of a book now in press at MIT Press called *Business and Environmental Policy: Corporate Interests in the American Political System*. We also are co-editors of the *American and Comparative Environmental Policy* series at MIT Press.

Reviewed by Michael E. Kraft, University of Wisconsin-Green Bay

BOOK REVIEW

Thomas Princen, 2005. *The Logic of Sufficiency*. Cambridge, MA: MIT Press.

Thomas Princen tells us that the logic of efficiency, by which humans have been managing their economic and social activities for centuries, is not appropriate for the world of finite resources in which we live. What he proposes as a replacement is the idea of sufficiency. Sufficiency, as he describes it, involves an ecological rationality in which we undertake activity that is sustainable, complexly adaptive, and experiential. But what it really means is simply recognizing that more is not

always better, and that the mantra of efficiency drives us to outcomes that are neither ecologically nor socially optimal. The book treats us to an elaborate and entertaining documentation of the evolution of efficiency, pointing out the specific goals it served in the creation of “economic man” and the rise of the corporation. He argues that efficiency, which once may have been a means to an end, has been transformed into an end in and of itself. And this end is not as apolitical as its advocates might imagine.

One of the most useful observations in the book is that there is, in fact, no value neutral way to evaluate efficiency. It is expressed as a ratio (miles per gallon or carbon dioxide emitted per amount of GDP). But the units chosen not only predispose a certain value, but are likely to lead to an outcome of greater consumption. If in order to increase the use of cars with high gas mileage the roads need to be made better (because low-mileage SUVs can traverse much more difficult terrain than a highly-efficient Prius can), the result may be that more of the population, including those that used to walk or take public transportation, begins to drive low-mileage cars, because the road conditions are so much better. Each car may be more efficient, but more people drive them now; suddenly it isn't so clear that this “efficiency” gain has actually resulted in less oil used, or less pollution. When you factor in the attendant social changes that come when people no longer walk or take public transportation, the implications of using “efficient” cars are far-reaching and not necessarily positive socially or environmentally.

His explanation of sufficiency centers around an elaboration of the concept of “working rationality,” in which individuals optimize the tradeoff between work and consumption, something he argues was historically achieved when people would work enough hours to earn what they needed and then stop, recharging themselves with leisure or family activities. We need to get back to the “human tides” of work time, observing the built-in physical and psychological limits to working. He expects

that people will be willing to do away with material gains in favor of non-material benefits, if societies can organize themselves to make this possible.

In order to convince us that sufficiency can work and that it is logical and appropriate, he gives us three fascinating in-depth examples of businesses or communities that have managed to limit themselves. The Pacific Lumber Company focused its operations for nearly a century around the idea of a “perpetual and profitable yield” (p. 164), which led the company to forego instant profit. By accepting the natural limits of the forest, investing in the well-being of its workers, and refusing to expand simply for the sake of expansion, the company was able to earn enough profit and operate in one area for the long-term. The fishers of the Monhegan lobster fishery have self-regulated by creating closed seasons and limiting the number of traps lobster fishers may use. They also operate within a set of social networks that enable the maintenance of community norms. When outsiders came in to attempt to fish their well-managed lobster stocks, the Monhegan Island lobster fishers worked within the political system to codify their protective practices. Residents of a system of islands in the harbor off Toronto have consistently fought efforts by the city of Toronto to link their islands to the mainland via a bridge or tunnel to provide automobile access, fearing a change to their quiet, residential communities.

The real question is whether Princen gives us enough of an understanding of what sufficiency actually is or how we would accomplish it. His examples are illustrative of a number of principles that could be aspects of sufficiency or may even be competing approaches. One common thread across the three cases is the ability to close access to a community or resource. In the Monhegan and Toronto cases most prominently, the argument was made by some that access to the resource (the lobster fishery or the island) should be open, to allow the greatest good for the greatest number. The communities have managed to retain their way of life by instead restricting access. It is also worth pointing out that the “way of life” in all these cases

is a phenomenally wealthy one, by global standards. While pursuing sufficiency may not be limited to those of means, the decision to restrict short-term gain for long-term sustainability may be easier, both practically and politically, for those whose current situation is comfortable enough that it is worth sustaining.

Efficiency, likewise, has some actual advantages if Princen remembers his admonition that it not be treated as an end in itself. In a world of finite resources, it is surely better to use them in a way that is not needlessly wasteful; that itself would be a component of sufficiency. Sufficiency may be equally inappropriate as a goal and better employed as a means to an end. We should use only "enough." But enough for what? Princen may not have fully defined that end, but he has helped us understand the problems with our current approaches, and the possibility of thinking in fundamentally different ways about what we might want.

*Reviewed by Elizabeth R. DeSombre,
Environmental Studies Program and Department of
Political Science, Wellesley College*

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In the twenty-first century, the production and use of scientific knowledge is more regulated, commercialized, and participatory than at any other time. The stakes in understanding these changes are high for scientist and nonscientist alike: they challenge traditional ideas of intellectual work and property and have the potential to remake legal and professional boundaries and transform the practice of research. A critical examination of the structures of power and inequality these changes hinge upon, this book explores the implications for human health, democratic society, and the environment.

Contributors: Rebecca Gasior Altman, Phil Brown, Steven Epstein, Scott Frickel, David H. Guston, Edward J. Hackett, Christopher Henke, David Hess, Maren Klawiter, Daniel Lee Kleinman, Brian Mayer, Sabrina McCormick, Kelly Moore, Rachel Morello-Frosch, Jason Owen-Smith, Jennifer Reardon, Laurel Smith-Doerr, Steven Vallas, Steven Wolf, Steve Zavestoski.

Strategic Planning in Environmental Regulation: A Policy Approach That Works, Steven Cohen, Sheldon Kamieniecki, and Matthew A. Cahn, MIT Press, 2005.