

ENVIRONMENT, TECHNOLOGY
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EDITOR

Allan Schnaiberg
Department of Sociology, Northwestern University
1810 Chicago Avenue, Evanston, IL 60208-1330
[Phone: 708-491-3202; FAX: 708-491-9907]

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TOXIC EXPOSURE AND TOXIC TORTS II: The Proper Care and Feeding of Attorneys

Steve Kroll-Smith
Dept. of Sociology
The University of New Orleans
New Orleans, LA 70148

Social scientists are increasingly asked to provide expert testimony on psychosocial stress following exposure to contaminants willfully or negligently discharges into the environment. My first column on the issue of environmental contamination, sociology, and the courts, discussed the emerging role of sociology in disaster liability law (see ETS, 58: 7-8). This column is a brief introduction into the potential conflicts between the professions of sociology and the law. It is offered in the belief that the best defense against the emotional distress of working for attorneys is foreknowledge of the differences in world-view between the law and social science. A good place to begin is with the federal mandate for expert witnesses.

Federal Rule of Evidence number 702 is a summary of the role of the expert in the courtroom:

Testimony by Experts: If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

The key words in this summary are "fact," "evidence" and "opinion." A "fact" for the law is something known with certainty. When a jury makes a "finding of fact" it is in effect declaring a legal truth. While fact and truth may be closely associated in the world of law, social science can only approximate truth (Melton, et al. 1987). Sociological knowledge is conceptual and probabilistic, not factual; its aggregate data yield numbers expressing the likelihood of occurrences, not certainty.

Do not count on attorneys to respect the limits

of science, however; they want proof, not probability. Beware of any request that begins with the seductive phrase, "I want proof that ..." For example, "I want proof that these families are adversely affected by the alleged exposure." Experts cannot determine proof, they render opinions. Judges and juries will determine whether the opinions of experts are "matters of fact." Keeping the attorney focused on the limits of science will prevent the possibility of overstatement and work to insure the credibility of sociology in the courtroom.

A related issue is the derivation of truth in the law and in sociology. If truth is a contested issue in the courtroom, it is more of a consensus issue in the social sciences. The legal system is an adversary process that uses conflict to present differing sides of an issue. The assumption is that truth emerges in the tension of opposing views (see Hartsough 1989: 285). Social science, on the other hand, is more akin to a consensual process blind referees and peer reviews to reach an agreement on the validity and reliability of data.

Practiced in the art of championing a version of the truth against the versions of competing others, lawyers work in a world whose boundaries preclude impartial judgement. They are biased and prejudice and will work to distort the testimony of experts by either enhancing or discrediting it. Sociologists will serve both the interests of plaintiffs and their profession if they limit themselves to representing science, not this or that version of contested truth.

The quality of the science experts are able to represent in a courtroom often depends on anticipating the naivete of most attorneys regarding sociological research and the extraordinary differences in the perception of time between academics and lawyers. Most liability cases employ experts from the

behavioral sciences, not sociologists. Psychologists and psychiatrists render opinions based on clinical evaluations of discrete plaintiffs, not the aggregate stress of neighborhoods or communities.

Toxic contamination, however, usually affects many people. Relatively simple clinical evaluations cost approximately \$1000.00 a piece (Wilson 1989). Multiply that by 100 or more litigants and the costs are prohibitive, even for the most affluent law firms. Collecting and interpreting aggregate data is more economical. Sociological assessments of populations losses are also likely to be more sensitive to the secondary impacts of toxic exposure such as diminution in the quality of neighborhood life and the social stigma of contamination.

Lawyers, however, are not likely to appreciate the differences between clinical and population assessments. Psychologists rendering an opinion on the psychopathology of a single plaintiff can do so with considerably more assurance in the validity of their evaluations than sociologists asked to render an opinion on the psychosocial losses of a neighborhood or community. Sociologists who agree to work as experts on toxic tort cases must be prepared to educate their employers.

The common thread in this discussion is the

responsibility of the expert to defend the boundaries of social science against the awe-inspiring rhetoric of jurisprudence. Somewhat ironically, sociologists who agree to be expert witnesses are in conflict not only with the side they are working against, but also with the side they are working for. The quality of expert testimony depends on the ability of the expert to protect the social science definitions of truth, fact, time and so on from the distortions of the law as it is practiced on both sides of the complaint.

The volatile question of what side of the toxic tort complaint sociologists "should" be on, the alleged victims or the defendants, is discussed in the third and final column of this series scheduled to appear in the next issue of ETS.

References

Hartsough, Don M. 1989. "Legal Issues and Public Policy in the Psychology of Disasters." In Psychosocial Aspects of Disaster, edited by Richard Gist and Bernard Lubin. NY: John Wiley & Sons, Pp. 283-307.

Melton, G.B., Petrila, J., Poythress, N.G. & C. Slobogin. 1987. Psychological Evaluations for the Courts: A Handbook for Mental Health Professionals and Lawyers. NY: Guilford.

Wilson, John P. 1989. Letter to Kroll-Smith (Wilson is a clinical psychologist and expert witness).

A NOTE ON THE POLITICAL ORIGINS OF THE E.P.A.

Theodore H. Tsoukalas
University of Illinois
Urbana, IL 61801

Recent attempts to reorganize the Environmental Protection Agency into a cabinet-level department and the impasse they have reached illustrate the persistence of the structural political limits that shape the administrative efficiency of the agency and affect its credibility among other federal agencies, regulated industries, and environmentalists. Even though

the presence of serious structural problems at the EPA is not new, their persistence should be of particular interest to environmental sociologists. Earlier this year the New York Times (Jan. 22, 1990) featured a story on a congressional proposal to change the status of the EPA. Representatives Conyers (D- Mich.) and Synar (D- Okl.), the two chief sponsors of

the bill, commented that transforming the EPA into a department would have advantages compared with its existing organization. They stated that the secretary of the new department would have a closer relationship to the President and that an environmental protection department would have a strong and balanced relationship with other federal agencies. Representative Synar suggested that Americans want "to put money and emphasis on the environment. . . To do that we have to have an effective agency that has the attention and respect of the rest of Government." Marlin Fitzwater, the President's spokesman, suggested that senior White House staffers would be receptive to the idea.

About two months later, the House passed a measure to give EPA a departmental status by a vote of 371 to 55, with many Republicans defying the President's threats of a veto and voting with the Democrats (*New York Times*, Mar. 29, 1990). The *Times* wrote that the Senate was expected to vote on a similar proposal a few weeks later, but thus far the Senate has not acted yet. The friction between the President and the House on this issue concerns several points that illustrate the form of new structural political limits affecting the capacity of the EPA to implement and enforce federal environmental quality policies.

The President wanted to simply change the status of the EPA without attempting any major restructuring of its functions and its responsibilities to the public. At the heart of the disagreement, however, lies a measure that would make the new department more responsive to an increasingly environmentally conscious citizenry. The bill's congressional sponsors wanted to create an independent Bureau of Environmental Statistics inside the EPA that would be exempt from the Office of Management and Budget's control and the control of the secretary of the new department. White House staffers, including the current head of the EPA, William Riley, suggested that they would recommend a veto of such legislation because it limited the President's authority to manage the executive branch.

In addition the House bill included several other measures. First, the bill would have shaped up

EPA's distribution of information on environmental issues to the public and to the agency's own branches. Second, the new department would have established an ombudsman's office to help individuals, corporations, and communities deal with agency regulations. And third, the bill would have created a commission to study the reorganization of the EPA. An important issue the proposed commission would have examined is the transfer of other governmental bodies with environmental quality jurisdiction, such as the Commerce Department's National Oceanic and Atmospheric Administration and the Army Corps of Engineers, to the EPA. This last measure seems to be a response to the fragmentation of authority within the agencies of the federal government--a fragmentation that works against the public's environmental demands. Currently, jurisdiction over environmental quality programs is divided among many departments and agencies, a situation that contradicts the proclamations of the President and Congress that created the EPA some twenty years ago.

The creation of the Environmental Protection Agency in 1970 was hailed as a necessary institutional development in the federal government's war against pollution. Congressional supporters and Nixon administration planners saw in the new agency an opportunity to consolidate all federal environmental pollution control activities. But, while the administrative consolidation of water and air pollution bureaucracies became institutionalized within the new agency, EPA's political authority over the implementation and enforcement of major air and water legislation was fragmented from the very start and has remained so ever since.

When the formation of the EPA was at the conceptual stage within President Nixon's Council on the Reorganization of the Executive Branch, the President became furious over the possibility that the new agency would be an environmentalists' agency. Thus he created the National Oceanic and Atmospheric Administration within the Commerce Department in order to ensure business's influence over environmental policies. In addition, the first EPA administrator appointed

by President Nixon had no experience in environmental quality matters. Both of these developments weakened the credibility of the new agency in monitoring other federal departments, whose activities had significant impacts on the environment.

Congress, too, weakened the credibility of the new agency. In order to avoid serious challenges from environmentalists, Congress excluded the permit activities of the EPA from the Environmental Impact Statement requirements of the 1969 National Environmental Policy Act. It was assumed that an agency solely devoted to the protection of the environment would not be engaging in activities that would harm the environment.

Unfortunately, the current calls for change in the administrative structure of the EPA would result in cosmetic changes and a lot of paper reshuffling. In the past the agency's political authority to regulate the activities of other federal agencies and private business has not gained much strength from administrative innovations. Its capacity to enforce and implement current and future legislation rests on political structural considerations. Is it not time to begin to conceptualize the creation of an environmental quality extension service within a College of Environmental Studies at land-grant universities, where students can pursue serious study on environmental, ecological, economic, political, and public health issues and where citizens' environmental organizations and businesses can receive guidance on how to create sound alternative public policies and

ASA MEETING NOTES

Carole Seyfrit has made the following suggestions of important related sessions for our section members to attend. These include: #86, #92 [table 10], #224, #239 [table 3], #246 and #289.

She also extends an early invitation for members to submit papers to her for next year's meeting. Carole will be organizing ASA session[s] on *Environment and Energy* [including natural resource issues].

RECENT EVENTS

Political Economy of Bauxite

The University of Wisconsin-Madison's Department of Sociology and Latin American and Iberian Studies Program hosted an international conference on the political economy and ecology of the international aluminum industry on May 4-5, 1990. Conference participants included institutional representatives from developed and underdeveloped states, and academics across several social sciences. The focus was on bauxite and its extraction and processing, and associated social, economic, and environmental issues.

Participants assimilated how importing nations strategically pitted competing underdeveloped states against each other. Outcomes of this were reported: exacerbating economic instability and distorting national development alternatives, through price influences and other strategies, including the creation of excess capacity.

Also analysed were: forward linkages for exporting states, the role of extractive physical environments on costs, roles of international capital in colonial and imperial regimes, varied roles of state officials on policies and information flow, the specificity of raw material extraction impacts, and issues of economic vs. ecological models and the role of labor.

Linda J. Seligman
Latin American & Iberian Studies Program
University of Wisconsin-Madison

Committee on Global Change

The National Resource Council has a new Committee on the Human Dimensions of Global Change, to recommend agendas and assess knowledge of human causes of and impacts of global climate, stratospheric ozone lawer, and biodiversity. It will coordinate with natural science groups working on changes over the next centuries, but focus on social, demographic and other human dimensions.

Study directors are Daniel Druckman and Paul Stern: National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418: [202] 334-3020 or 334-3005.

conserving, global environmental problems, or fertility. Send to Stern at National Research Council, 2101 Constitution Avenue, N.W., Room HA184, Washington, DC 20418.

PUBLICATION OUTLETS

Archives of Complex Environmental Studies

This new international journal concentrates on studies (theoretical, empirical, and methodological) of complex environmental conditions. It is expressly interdisciplinary, differentiating itself from analyses of single factors. It covers the full spectrum from natural to social sciences, including "studies on humans, animals and plants". It will include articles, reviews, calendars, and conference proceedings. Contact: ACES Ltd., P.O. Box 114, SF-33101 Tampere, Finland.

Science and Global Security: The Technical Basis for Arms Control and Environmental Policy Initiatives

This peer-reviewed journal reports on arms control and global environmental policy. It seeks to bridge the East-West gulf, by providing a common understanding of the technical basis for new policy initiatives. The journal will be published in Russian as well as English.

Editor is Harold A. Feiveson, Center for Energy & Environmental Studies, Princeton University, Princeton, NJ 08544. Publisher is Gordon & Breach Science Publishers, P.O. Box 786, Cooper Station, New York, NY 10276.

Psychological Dimensions of Global Environmental Change

Paul Stern (National Research Council) is collecting materials for his 1992 Annual Review of Psychology paper on "Psychological dimensions of global environmental change". He welcomes reprints or preprints of relevant studies. These include: perception, behaviors, attitudes regarding resources, resource

MEMBERSHIP NEWS & NOTES

Phil Brown (Brown University) will have his book with Edwin J. Mikkelsen, No Safe Place: Toxic Waste, Leukemia, & Community Action, published in August 1990 by the University of California Press.

This is a study of how Woburn, MA, residents detected a childhood leukemia cluster, and mobilized around it. The book develops a concept of *popular epidemiology*, tracing how the residents organized, and gathered and analysed health survey data, using expert resources in new ways. It compares this case with other toxic waste sites in the US, tracing new forms of empowerment in grass-roots movements seeking redress from corporations and government agents. The focus is on the social nature of toxic waste contamination, the myth of scientific value-neutrality, activism in popular epidemiology, scientific empowerment of laypersons, and lay/professional alliances.

Thomas Heberlein (U Wisconsin) has just completing teaching a course on Chippewa Indian Treaty Rights: A Sociological Perspective of the conflict in Wisconsin. He has just been selected to serve on a National Academy of Science Committee on Science in the National Parks. His most recent publication is "Attitudes in environmental management", Journal of Social Issues, 45 (1): 37-57.

FORTHCOMING MEETINGS

A symposium on population-environment dynamics will be held at The University of Michigan (Ann Arbor) on October 1-3, 1990. Members are invited to be discussants or observers. Contact Gayl D. Ness, Director, Population-Environment Dynamics Project, M4523 School of Public Health, Bldg. II, U. of Michigan, Ann Arbor, MI 48109-2029.

TO: Members of the Environment & Technology Section, ASA

FROM: Allan Schnaiberg, Dept. of Soc., Northwestern U., 1810 Chicago, Evanston, IL 60208

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