

Taking Law's "v." Out of Environmental Policy Science (Again)

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Bernard D. Goldstein, [What the Trump Administration Taught Us About the Vulnerabilities of EPA's Science-Based Regulatory Processes: Changing the Consensus Processes of Science into the Confrontational Processes of Law](#), 31 **Health Matrix** 299 (2021).

When Bernard Goldstein speaks about the intersection of science and law in environmental policy, people listen. Or at least they should, in light of Dr. Goldstein's distinguished record of scholarship, public service, and advocacy at this nexus. He is now in his sixth decade of writing about protecting public health from a vast array of toxic exposures. His latest contribution to that discussion is well worth reading and reflecting upon.

Readers should not be deterred by the article's unwieldy title, nor by the prominent mention of a well-known person who skipped Joe Biden's inauguration. Goldstein's article is much more than a shooting-fish-in-a-barrel critique of an expired Administration. As Goldstein points out, a future similar assault on the scientific basis for environmental policy "is far from impossible," and "not . . . from just one side of the political spectrum." (P. 339.) So, rather than focusing on ideological differences and policy preferences, Goldstein attempts to explain the essential nature of such attacks and to suggest potential defenses.

Goldstein's thesis is that the "replacement of EPA's scientific consensus processes with those most appropriate to the law" was behind the harm that former Administrators Scott Pruitt and Andrew Wheeler did to EPA policymaking. This thought might rankle law professors, who certainly acknowledge that science provides the factual basis for environmental policy but nevertheless customarily emphasize that lawyers' skills are essential to formulating, defending, and enforcing environmental regulations. But Goldstein does not question or denigrate the value of lawyers and legal analysis to policymaking. Rather, he argues that the first step in making environmental policy – selecting and evaluating the science to be used in the process – is served better by the norms and modes of science than by those of law.

Goldstein begins with a brief description of "pertinent distinguishing characteristics between law and science." (P. 303.) Many judges and academics have attempted this over the last fifty or so years; Goldstein claims no novelty here. He emphasizes the contrast between advocacy and discovery as the prime motivators of lawyers and scientists, respectively. The point is well taken, though the article gives too little credit to the professional imperatives and cognitive biases that can push scientists toward advocacy, as well as to the need for credibility that can sometimes push lawyers toward truth-telling. But Goldstein qualifies his somewhat over-stark presentation, noting that "these are central tendencies rather than absolute rules." (P. 304 n.12.) And his deep understanding of these tendencies, as a scientist who has worked on many legal and policy issues, provides insights far more useful than the platitudes that often appear in court opinions and even in some scholarly writing.

What Goldstein calls "advocacy" reflects, more than anything, the adversarial nature of the American judicial system, with the central "v." of a case caption constructing a sharp pivot between opposing world views. Goldstein contends that on regulatory science issues, an adversarial structure – whether in a court of law or the court of public opinion – predictably generates a conceptual model of scientific opinion as bimodal, with views clustered around incompatible extremes. The typical scientific reality, he says, is different: if sufficient data exist, scientific opinion on any particular issue is likely to be normally distributed, strongly clustered around some central value that represents a consensus

view.

Unsurprisingly, Goldstein the scientist believes that the goal of environmental policymaking should be to discover that scientific consensus and then to choose a regulatory standard reflecting the consensus as nearly as possible. He laments the last Administration's displacement of this goal, achieved through a series of procedural changes, many glaringly obvious but some quite inconspicuous. The cumulative impact, Goldstein concludes, turned a process that used to be a search for scientific consensus into an attempt to justify a preferred outcome – that is, into advocacy. Goldstein's disagreement with the outcome preferences is incidental to his concern about the procedural transformation itself.

Goldstein illustrates the depth of the transformation by describing numerous methods for seeking to determine a scientific consensus, none of which bears any resemblance to the decision-making processes of the departed Administration. He also discusses how the scientific research function fits into EPA's organizational structure and why the appropriate procedures for assessing scientific evidence may vary with the regulatory context. Goldstein's vast experience – which includes a stint heading EPA's Office of Research and Development – enriches this discussion. For example, Goldstein provides a compelling scientific rationale, rather than a policy argument, for why data transparency rules appropriate for new drug approval by the FDA are not appropriate for environmental regulation by the EPA.

For legal scholars who would build on this work, Goldstein's discussions of how scientists assemble and evaluate evidence, and how they choose their methods for doing so, are among the most intriguing passages in the article. Some, though not all, of the consensus-finding methods Goldstein explores have been adopted by governments or by non-governmental agencies. Within government, different structural choices have been made in the establishment of different agencies, each with its strengths and weaknesses. Determining which methods and structures will be most robust against future attacks is an urgent mission.

Twenty-five years ago Dan Tarlock argued “that environmental law and management should derive their primary political power and legitimacy from science, not ethics.”¹ The past four years showed us both the power and limits of Tarlock's claim. Ethics, we have seen, are insufficient to ensure good or even rational environmental policy: they are subject to too much disagreement, and they do not seem to constrain some policymakers at all. But science, we have seen, is also insufficient to ensure good or even rational environmental policy: it is too easily honored in word but not in deed. Bernard Goldstein's exploration of how this happened sets up the challenge of figuring out how we can keep it from happening again.

1. A. Dan Tarlock, [Environmental Law: Ethics or Science?](#), 7 *Duke Envtl. L. & Pol'y Forum* 193, 194 (1996).

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