

## Round Table Discussion: Science, Environment, and the Law

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I want to comment on the topic that Victor Sher has just spoken about and relate it to what I anticipate will be discussed later in the panel, and that is the Supreme Court's recent decision in *Daubert*.<sup>1</sup> I will also make some very general points about the relationship between law and science, and about the role of scientists in legal processes.

The issue in the *Daubert* case, which was decided last June by the Supreme Court, relates to the admissibility of scientific evidence in the determination of the facts of a particular case. Lawyers have long understood and accepted that the determination of the facts is distinct from the determination of the law. In *Daubert*, the disputed scientific evidence related to the question of whether or not a mother's ingestion of an antinausea drug was the cause of her child's birth defects. Thus, this case addressed the scientific factfinding process and had nothing to do with the applicable substantive law.

Ordinarily, no lawyer or judge would think to ask for a scientist's interpretation of the law. Many environmental laws have complicated the maintenance of this traditional distinction through vague prescriptions and proscriptions that leave courts with considerable discretion. The problem is further complicated by the increased judicial reliance on balancing tests. When the law is vague, or when the law expressly calls for judicial balancing of interests, there is a tendency for questions of law and questions of fact to become confused. The judge becomes the policymaker, while looking to science to avoid being, or appearing to be, the policymaker. The policy choice is thus obscured, not discussed, and effectively delegated to the scientist.

The reason for this can be more readily understood in the context of legislative and administrative policymaking, where questions of fact and questions of policy are confused for similar reasons. I will illustrate with the example of the spotted owl, which Victor Sher has just discussed. There are two broad questions raised by the northern spotted owl controversy. First, there is the question of whether the spotted owl is threatened or endangered. The second question is: "If the

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1. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S. Ct. 2786 (1993).

spotted owl is threatened or endangered, what if anything should we do about it?"

The first question breaks down into two additional questions, which parallel those in the *Daubert* case. First, we must determine what the terms "threatened and endangered" mean in the context of the Endangered Species Act (the ESA).<sup>2</sup> This is clearly a legal question requiring traditional legal interpretation, although not necessarily an easy legal question. Second, we must determine the facts about the spotted owl—the condition of the spotted owl. This is clearly a scientific question about which lawyers know little and, hopefully, scientists know enough to help us determine whether the spotted owl is in fact threatened or endangered, as the law defines those terms.

Once we have determined that a particular species is threatened or endangered, the question of what we should do about it has, at least on its face, been answered by Congress. Congress has in sections 7 and 9 of the ESA imposed mandatory constraints on activities that would jeopardize "threatened or endangered species" or modify their critical habitat.<sup>3</sup> But the application of the ESA is not, I think, that straightforward. There are other legal questions that are not clearly answered by the language of the Act.

For example, the Act protects species, subspecies, and distinct population segments.<sup>4</sup> Does the northern spotted owl qualify for protection as a species, subspecies, or distinct population segment? According to the best scientific evidence, there are spotted owls in other parts of the country that are not threatened or endangered. Therefore, does the northern spotted owl even qualify for protection under the ESA? This last question is a legal, and not a scientific, question. A scientific determination that the northern spotted owl is threatened or endangered invokes the ESA only if the northern spotted owl comes within one of the protected categories. Unfortunately, the language of the statute does not clearly answer this question.

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2. 16 U.S.C. §§ 1531-1544 (1988 & Supp. IV 1992).

3. Section 7 provides: "Each Federal agency shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species . . ." *Id.* § 1536(a)(2). Section 9 provides: "[W]ith respect to any endangered species of fish or wildlife listed pursuant to section 1533 of this title it is unlawful for any person subject to the jurisdiction of the United States to . . . (B) take any subspecies within the United States . . ." *Id.* § 1538(a)(1). The statute provides that "take" means "harass, harm, pursue, hunt, wound, or attempt to engage in such conduct." *Id.* § 1532(14). Regulations define "harm" as "any act which actually kills or injures wildlife . . . [including] significant habitat modification or degradation . . ." 50 C.F.R. § 17.3 (1993).

4. "The term 'species' includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife fish or wildlife which interbreeds when mature." 16 U.S.C. § 1532(16).

I think a more complicated version of this issue, and one which is going to have far greater effect on the Pacific Northwest, is raised by anadromous fish, or salmon to those of you who know your fish from restaurant menus. The Fish and Wildlife Service and the National Marine Fisheries Service have taken the position that the sockeye salmon of the Snake River is not the same fish as the sockeye salmon in another tributary of the Columbia River.<sup>5</sup> There is a good biological basis for this conclusion. Different runs of the same species are often genetically distinct.

But, is there good evidence that Congress intended for the ESA to protect a threatened, genetically distinct strain of a species that is otherwise not threatened or endangered? I do not know the answer to this question, but I do know it is very different from the question of how the Snake River sockeye salmon is doing. These are very different questions, and we cannot avoid deciding what to do by relying on scientists to tell us what the facts are.

In the context of the Endangered Species Act, the importance of the distinction I have drawn is underscored by the Act's provision for an exemption process, which may eliminate certain protections for a threatened or endangered species.<sup>6</sup> When the Endangered Species Committee, or "God Squad," is called into existence, we can no longer rely on Congress' determination of the policy question.<sup>7</sup> It is the Endangered Species Committee's responsibility to determine if we care enough about a threatened or endangered species to curtail activities that place the species' survival at risk. When the Endangered Species Committee is convened, it must decide whether we should act to protect the species based on all of the factual evidence we have, not just the scientific conclusions about the condition of the species in question.

My observer's perspective on the northern spotted owl exemption process, in which Victor Sher has been a central participant, is that, even in the Endangered Species Committee proceedings, science dominated. As I read the statute, however, the exemption process is

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5. See Endangered and Threatened Species; Endangered Status for Snake River Sockeye Salmon, 56 Fed Reg 58,619 (1991) (codified at 50 C.F.R. § 222.23(a) (1993)).

6. 16 U.S.C. § 1536(e).

7. The ESA exemption provisions allow a federal agency, a project applicant, or the affected state to seek an exemption to the ESA by petitioning the God Squad. *Id.* § 1536(g). The God Squad may grant an exemption to the ESA where it finds that:

- (i) there are no reasonable and prudent alternatives to the agency action;
- (ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;
- (iii) the action is of regional or national significance; and
- (iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitments of resources prohibited by . . . [the Act].

*Id.* § 1536(h).

where policy, not science, is supposed to dominate. I believe this is just one of many instances where we have resorted to science as a way of avoiding difficult policy choices.

Senator Hatch mentioned another statute that raises similar problems—section 404 of the Clean Water Act—which requires a permit for discharging fill or dredge material into navigable waters, including wetlands.<sup>8</sup> An ongoing problem under section 404, at least since 1987, has been the delineation of wetlands. This issue has been previously dealt with as if it is a scientific question. We have even referred the question to the National Academy of Sciences.<sup>9</sup> Although the Clinton administration has proposed some regulations to resolve various wetland regulation issues,<sup>10</sup> I will be surprised if the Clinton proposals avoid this basic mistake.

The reality is, of course, that the delineation of wetlands is ultimately and unavoidably a political question, a question of values, a question of policy. Whether or not we are going to treat potholes in Nebraska as part of the navigable waterways of this country and, therefore, as wetlands, is a policy question and is not one which scientists can answer. They can tell us what types of land will serve particular purposes, but we have to decide what types of land merit protection.

In other words, we cannot, indeed we must not, permit these difficult policy questions to be evaded and avoided by relying on science and scientists to answer them for us. Fact questions have correct answers, in theory. Value questions, particularly in a society of moral relativism, are up for grabs. We have managed to evade, obscure, or avoid the difficult and divisive value questions by resorting to science. We have permitted science, whether junk or high quality, to become a trump in the policymaking and law-interpreting processes.

Senator Hatch mentioned Vice President Al Gore's book, *Earth in the Balance*,<sup>11</sup> which is an excellent illustration of this misuse of science. You need only read a few randomly selected pages in Gore's book to see how one can rely on science to justify policy outcomes. The book is filled with assertions of fact that some scientists might

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8. See Orrin G. Hatch, *Opening Remarks*, 21 *ECOLOGY L.Q.* 335, 340 (1994). Section 404 is codified at 33 U.S.C. § 1344 (1988). "Navigable waters," as used in section 404, are defined by regulation in 33 C.F.R. § 328 (1993). This definition extends the section 404 permit requirement to wetlands. See *id.* § 328.3.

9. See HOUSE COMM. ON APPROPRIATIONS, H.R. REP. NO. 710, 102d Cong., 2nd Sess. 51 (1992) (explaining that \$500,000 of EPA's 1993 appropriations should be spent on a National Academy of Sciences study of wetlands).

10. WHITE HOUSE OFFICE ON ENVIRONMENTAL POLICY, PROTECTING AMERICA'S WETLANDS: A FAIR, FLEXIBLE, AND EFFECTIVE APPROACH (1993); see also Michael Blumm, *The Clinton Wetlands Plan: No Net Gain in Wetlands Protection*, 9 *J. LAND USE & ENVTL. L.* (forthcoming 1994).

11. SENATOR AL GORE, *EARTH IN THE BALANCE* (1992).

dispute. But even assuming that all of the facts that Vice President Gore asserts are true, that does not necessarily lead to his policy conclusions.

Policy justification, I would argue, is a different matter from the scientific proof of the facts, whether we are talking about spotted owls, wetlands, global warming, or any of the multitude of other environmental problems. We should seek to separate the pursuit of truth from the choice among competing values or policies. It is a separation we can never fully achieve, but it is a conceptual separation that is fundamental if we are to consider the full range of policy options and not hide behind science. Do we want a government of experts or a government of the people?

Reliance on science has led the Clinton administration to an ecosystem management approach, which reflects a remarkable level of confidence in our understanding of the ecosystem and which effectively excludes humans from the ecosystem. Humans are understood as the external causes of harm and repairers of damage, rather than as participants in an ongoing evolution of the ecosystem. Do we preserve this ecosystem as if humans are external? Do we preserve the ecosystem as it exists at any cost? How much human freedom, for example, do we sacrifice to preserve a particular conception of what the ecosystem is supposed to be?

The reality is that value choices will be made and expressed through human actions, whether private or public. They will have impacts on the environment. We should use science for what it can do, which is to explain the world in which we live and the impacts of our actions upon that world. We should avoid using science for what it cannot do, which is to justify the choices we make. Many injustices have been done in the name of science. We must avoid permitting a misplaced reliance on science to lead to injustice and bad social policy in the name of environmental protection.