

2. M. Green, *Northwest Univ. Law Rev.* 86, 643 (1992).
3. L. Tomatis *et al.*, *Cancer Res.* 38, 877 (1978).
4. National Research Council, *Risk Assessment in the Federal Government* (National Academy Press, Washington, DC, 1983), p. 22.

Foster *et al.* suggest an intuitively appealing method for dealing with scientific evidence. Because scientists are comfortable with the truth-finding mechanism of their own community and agnostic (or skeptical) about the truth-finding capacity of the adversarial system, it follows that they would want courts to rely on peer review, court-appointed experts, professional organizations, and the reports of scientific consensus groups. But it is worth thinking about whether such a reliance of scientists is good for the nation or for science.

Daniel E. Koshland Jr. notes in his editorial of 10 September (p. 1371) that early environmentalists alerted us to pollution problems without the benefit of expert opinion and peer review. If professional consensus had been necessary, the inherent conservatism of science would have delayed action within the legal system at significant social cost. To be effective, law must be structured to deal with problems as they arise, sometimes before full data are available.

Furthermore, the research agendas of scientists are necessarily selective. If courts were largely confined to consulting scientific materials previously investigated and agreed upon by science, scientists would bear a considerable responsibility to orient their research toward every potential social problem. In short, the approach of Foster *et al.* might require scientists to give up a great deal of the autonomy they now enjoy.

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Transportation Costs

Should the fruits of technology be served up to the inventors, the public, or the government? Vladimir Haensel's analysis of transportation costs (Letters, 8 Oct., p. 163) suggests that the government is the winner. Haensel advocates accepting the concept of total cost of transportation per mile as a guideline for deciding if and how much gasoline tax should be increased to reduce the national debt. This line of reasoning would make a Madison Avenue copy writer proud. The gist of it is that because gasoline is a small percentage (about 10%) of the total cost of automobile transportation, one could increase its cost by a large amount (\$0.50 per gallon or about 50%) and only increase the cost of transportation by a small 5%. Somehow the small percentage

increase of the larger category is supposed to make the large tax increase of \$60 billion more palatable. The illusion is a property of arithmetic, not of transportation costs. I have mixed feelings about this suggestion. Reduction of the national debt by increased taxation may be the best use of taxes, and getting more tax may require new tricks, but increasing taxes is not the only way to reduce the debt. The main problem with the scheme is that it provides a model that can be generalized to other categories, such as housing or food or indeed anything else. Gasoline seems like a good choice now because increased engine efficiencies yield better gas mileage, which slightly mitigates the total transportation cost. But suppose science and technology produce a significant improvement in a component of building construction. One could then argue that the cost of the component improved should be increased by adding a tax. After all, housing cost, the larger category, would be increased only slightly. Now we have a model for placing government rather than the public or the inventor first in line for receiving the benefits of scientific progress.

Legislators and bureaucrats are already quite good at discovering ways to foster that end. Let's not offer a scientific imprimatur in the form of clever math.

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I do not dispute Haensel's numbers, but I do question some of his assumptions. While there are drivers who are fortunate enough to have excess disposable income, many people who drive to work (and thus cannot afford to stop driving their cars) would have to give up another necessity were Haensel's proposed gasoline tax to be imposed. Also, in many parts of the United States, drivers must commute long distances, and the burden of the proposed tax would be greater on these drivers than on those who need only go short distances.

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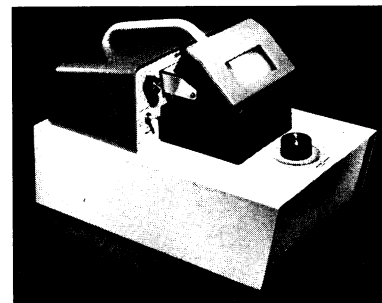
Idolizing Wolves

Daniel E. Koshland Jr.'s editorial "Making wolves lovable" (30 July, p. 531) leaves some misunderstandings about the wolf that I would

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like to clear up. The wolf is neither vicious nor huggable, dangerous nor lovable. It is merely one more interesting species long persecuted by humans throughout the centuries that requires a place to survive. It is true that a number of "Dr. Noitalls" have chosen the wolf to idolize, but most wolf biologists believe such idolatry is not in the long-term best interests of the species.

Koshland uses Alaska as the hypothetical state into which wolves might be reintroduced. Ironically, Alaska is the only state whose wolves are *not* on the Federal List of Endangered or Threatened Species. No reintroductions of wolves into Alaska are planned or necessary, and the state has even offered to supply wolves for reintroductions elsewhere. A more accurate example would have been Yellowstone National Park, where wolves were exterminated in the late 1920s and where the majority of the U.S. public favors reestablishment.

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Health Care and Life Expectancy

The observations in Daniel E. Koshland Jr.'s editorial concerning hampering basic research (8 Oct., p. 159) apply equally to the creative pharmaceutical industry. President Clinton's supposed reduction of the cost of medical care reduces a negligible part of the cost at the cost of life expectancy. The increase in life expectancy the last 50 years has been attributable to new medicines. Basic research in the pharmaceutical industry will be hampered by price reductions. The industry will be forced to reduce basic long-range research and, therefore, better medicines for our grandchildren are unlikely to be discovered.

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Corrections and Clarifications

The four pictures of the moon accompanying the review by Ursula B. Marvin of *To a Rocky Moon: A Geologist's History of Lunar Exploration* by Don E. Wilhelms (9 July, p. 231) should have been in reverse order on the page.

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