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## MACROSCOPE

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### Liberating Science from Politics

**The notion that science can be used to reconcile political disputes is fundamentally flawed**

[Daniel Sarewitz](#)

Wouldn't it be wonderful if science—and scientists—were taken more seriously in the political process? Wouldn't democracy be better served? And wouldn't many difficult problems be more rationally resolved? Take the debates over protecting the environment. It certainly seems that, here, science should be able to cut through political controversy and enable beneficial action. Yet experience mostly shows the opposite: Controversies surrounding environmental problems as diverse as global climate change, genetically modified foods, nuclear energy, biodiversity, air and water pollution, and toxic wastes rarely seem to come to a satisfactory resolution. They are instead characterized by long-term intractability and periodic resurgence of bitter partisan dispute—all in the face of a continual expansion of scientific understanding.

Blame for this unsatisfactory state of affairs is usually assigned to the political process itself, especially to those who use science to advance particular ideological agendas. If only, the complaint goes, those (a) conservatives (b) liberals (c) environmentalists (d) industrialists or (e) ignorant members of the public would understand the facts, or stop manipulating the facts for their own political gain, we could arrive at rational solutions to the problems we face.

Yet this sort of complaint—which I have heard, in one form or another, from innumerable scientists—suffers from a profound misunderstanding of the relation between science and politics. The idea that a set of scientific facts can reconcile political differences and point the way toward a rational solution is fundamentally flawed. The reality is that when political controversy exists, the scientific enterprise is ideally suited to exacerbating disagreement, rather than resolving it.

Consider the contested 2000 presidential election between George W. Bush and Al Gore. Recall that the outcome hinged on Florida's 25 electoral votes and that the vote count was incredibly close, with a margin of victory of about 500 votes out of six million cast. The technical issues surrounding an election are entirely straightforward—count the votes for each candidate and see who has the higher number. The system is closed, the rules are clear, the technical aspects are trivial, and the correct answer is an integer. What could be more amenable to rational, fact-based analysis?

Here's a thought experiment: Suppose in the days immediately following the election we had assigned a team of disinterested experts to determine the correct result and declare the winner. Wouldn't this approach have quickly yielded the right answer, in a manner untainted by political shenanigans?

Given the many complexities and irregularities associated with the vote count (from "hanging chads" to poorly designed ballots), our team of experts would have had to draw on the strengths of numerous disciplines,

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