

Editorial

Editors' introduction

Not since the publication of Rachel Carson's *Silent Spring* (1962) has a book about the environment provoked such controversy as Bjorn Lomborg's *The Skeptical Environmentalist* (2001). In the four decades since *Silent Spring* a popular environmental awareness and suspicion of "chemicals" and other aspects of modern industrial life has increasingly challenged and, in some cases, displaced scientific and technological optimism as an orthodox view throughout most of the industrialized world. A proliferation of nongovernmental organizations and scientific bodies repeatedly invoke science to warn us of the potential for irreversible and, possibly, catastrophic environmental decline, unless people on the planet mend their ways. Powerful interests resist this message, increasingly by attacking the science that informs it. In this context, it may seem unsurprising that Lomborg's challenge to contemporary catastrophic views of inexorable global environmental decline has itself attracted criticism from environmentalists.

Perhaps what is surprising are the amount of attention, the degree of opprobrium, and the *ad hominem* nature of the criticism that has been launched at Lomborg for a book that builds upon a tradition of similar arguments. Indeed the central theme of TSE, that some combination of business-as-usual and incremental change will be sufficient for children born today to "get more food, a better education, a higher standard of living, more leisure time and far more possibilities—without the global environment being destroyed", seems a relatively modest assertion of the cornucopian world view by comparison with some of Lomborg's predecessors, such as Julian Simon, Herman Kahn, and Edith Efron. Other deconstructions of environmental concerns over the preceding decade including Ron Bailey's *Ecoscam* (1993) and Aaron Wildavsky's *But is it True?* (1995) provoked few serious rebuttals from scientists or environmental activists.

The controversy over TSE serves to remind us of the anthropological observation that science is the trump card that we play in disputes about values. In our contemporary society, science has become the medium through which we understand nature. However, science has also become the medium through which we wage political battles not just on the environment, but also over many other contested issues. Hence, the debate over TSE provides a rich case study

through which to examine issues associated with the relationships among science, policy, and politics, which observers on the right (e.g., Gough, 2003) and left (e.g., UCS, 2004) of the US political spectrum agree is a critical area for governance.

The five papers that comprise this special issue were originally solicited for a symposium titled "The Politicization of Science: Learning from the Lomborg Affair" organized by Roger A. Pielke Jr. at the February, 2002 annual meeting of the American Association for the Advancement of Science (AAAS). In the two and a half or so years since, the topic of science and politics has gained considerable saliency with debate in the United States over the alleged systematic misuse of science by the Administration of George W. Bush (e.g., Waxman, 2003; UCS, 2004). As debate over TSE continues, the topic of science (or information more broadly) in policy and politics has taken on broader significance, for example, with debate over the role of intelligence in the decision to go to war in Iraq, and debates over science and policies of genetically modified biotechnology, stem cells and cloning, and climate change. With this broader context in mind, the authors were asked to consider debate over TSE as a point of departure for thinking about science, policy, and politics.

Focusing attention on the debate over TSE, rather than participating in the debate itself, turned out to be a less than straightforward task. Organizing the symposium revealed the extent of the polarization of the scientific and policy community around TSE. Colleagues coming from different sides of the issue accused the participants of either seeking to shore up support for TSE or joining in the attack on the book and its author. One participant planning on participating in the AAAS symposium dropped out because his peers cautioned him about the political implications of openly discussing TSE. It proved difficult to focus attention on the broader issues arising from the conflict because many refused to engage the larger issues, preferring instead to take one side or the other.

The five panelists who took part in the original symposium were variously trained as historians (Harrison, Oreskes), a geologist (Sarewitz), policy scientist (Pielke), and political scientist (Herrick). Harrison is the editor of

TSE at the Cambridge University Press. The five authors share an interest in science and the various roles that it plays in society, however, they are not necessarily in full agreement on the significance of TSE.

Hence, this collection of papers does not seek to contribute to, much less resolve, the dispute that has arisen over the multitude claims made in TSE and analyzed, refuted, or supported in so many articles, reviews, and websites. Instead, this special issue offers a set of critical perspectives on the controversy over TSE, and its broader implications, in order to stimulate debate and discussion about the role of scientists (including social scientists) in policy and politics. Some contributors to this special issue use the debate over TSE to discuss broader issues of science in environmental policy. Other perspectives in this special issue go so far as to suggest that the loud and at times nasty debate over TSE in fact matters very little from the standpoint of environmental policy.

All of the papers, in one form or another critique, in varying degrees, the notion that science can dictate particular political outcomes. Elsewhere, Sarewitz (2004) writes:

What we do, or don't do, about global warming (or stem cell research, regulation of toxic chemicals, protection of endangered species ...) will be a reflection of how we choose among competing values, and making such choices is not the job of science, but of democratic politics. Science can alert us to problems, and can help us understand how to achieve our goals once we have decided them; but the goals themselves can emerge only from a political process in which science should have no special privilege.

This conclusion would be readily embraced among the communities of social scientists who study science and technology. Yet, controversy over TSE suggests that the community of scholars who study science, technology, and society as well as science and technology policy may face a problem of "technology transfer." That is, there is exceedingly little evidence that the well-developed understandings of the complexities associated with the production and use of science in policy and politics are appreciated to any degree by the larger community of scientists and decision makers who actually produce and use science. As Sarewitz (2004) continues:

[Neither politicians nor scientists] want to give up on the pretense that these controversies are about science. To do so would be to abandon the high ground created when one can claim to have "the facts" on one's side. The resulting charade, where everyone pretends that science can save us from politics, undermines science by turning it into nothing more than ammunition for opposing ideologies. Even more dangerously, it damages democracy by concealing what is really at stake—our values and our interests—behind a veil of technical language and competing expertise.

From this perspective, one interpretation of the debate over TSE is as a political controversy over values masquerading as a scientific dispute. Both science and democracy are

the casualties. Undoubtedly, among participants on all sides there are those who are prepared to manipulate scientific debates cynically for political advantage. But others may understand the complexities, but nonetheless operate within the frame of scientific determinism, perhaps because of because of its widespread cultural acceptance. At the very least, the debate over TSE tells us that, for the time being, the notion that science is the appropriate context for public disputes over issues that are ultimately disagreements over values remains firmly entrenched.

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