

## **Pulling at a Tangled Web**

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**Organisms from Molecules to the Environment**  
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## Pulling at a Tangled Web

It will strike most readers of *BioScience* as obvious that the political debate surrounding environmental issues is often sadly misinformed about pertinent facts. On one hand, the disconnect might result from an innocent inability of the participants to learn about relevant information because it is hidden in technical journals or is undiscovered. On the other hand, particularly among nonprofessionals, it might be the result of deliberate misdirection by parties with an interest in the debate's outcome. In either case, a wider appreciation of the available facts seems likely to be beneficial.

Biologists and others concerned about the environment will therefore heartily endorse the National Science Foundation's funding of the new National Socio-Environmental Synthesis Center (SESYNC). The center, supported by the University of Maryland and based in Annapolis, aims to bring together natural and social scientists, as well as policymakers, to identify discipline-transcending research priorities, with an emphasis on actionable outcomes and educational outreach. Inspired by and modeled in part on the National Center for Ecological Analysis and Synthesis and on other synthesis initiatives, the new center has received a \$27.5-million, five-year award—an amount that may seem modest in light of the scale of the issues to be addressed.

Understanding of critical processes should benefit greatly from the inclusion of social scientists, although this is not a new idea. But building strong connections among them, natural scientists, and policymakers will entail more than just the synthesizers' learning each other's technical vocabularies and how to handle large amounts of data. It will necessarily mean that the participants grapple with philosophical questions.

Many natural scientists seem—consciously or not—to be guided by an uncritical utilitarian stance when contemplating policy and politics. Seeking the greatest good for the greatest number feels praiseworthy, yet social scientists know that people often object to policy aimed toward that goal, vague as it is, and much twentieth century philosophy provides reasons people might be right to do so. Utilitarianism notoriously promotes conflict between the values of a reflective elite and, for example, those of a mother with a hungry child or those apparent when a house is on fire. In a democracy, policy has to respond to people as they are, and their reasons have resilience. Sometimes, unearthing the facts will not have the expected effects on reasons. Educational outreach must recognize people's diversity and their opportunism.

Not that natural scientists will be the only ones who face some philosophical attitude readjustment. They will be able to point social scientists and policymakers to profound biological influences on people's choices and preferences, as well as to the physical constraints on societal change now becoming apparent. And policymakers can contribute inside knowledge of existing political institutions, for which some explanations may amount only to historical happenstance.

All the more reason the effort to achieve synthesis is important: Few would defend how environmental policy is made now. Good luck, SESYNC.

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