The Tragedy of Political Services

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Intrinsic Value Can Help Conservation

To undermine the worth and importance of intrinsic value, as Lynn A. Maguire and James Justus do in their Viewpoint article (*BioScience* 58: 910–911), is to undermine conservation work. They themselves recognize the importance and usefulness of intrinsic value when, referring to the Endangered Species Act, they state, "Intrinsic value may get a proposed listing to the table, but it does not muster the attention needed to get it off the table and into action." Although intrinsic value cannot be the sole basis for conservation planning or decisionmaking, it does provide purpose and brings parties "to the table."

Maguire and Justus's fundamental error is the view that intrinsic value must compete with instrumental value. Their article begins by acknowledging the support for intrinsic value of "conservationists from Muir to McCauley" but doesn't give the whole picture. The belief that nature has intrinsic value as well as and apart from its instrumental value has been discussed by writers from Leopold to Rolston. Conservationists must realize that intrinsic and extrinsic (instrumental) values are not mutually exclusive.

Maguire and Justus also maintain that when protection of a species or ecosystem conflicts with economic development or with immediate human needs, intrinsic value is even less likely to be an effective basis for conservation. This argument scapegoats intrinsic value. Because of humankind's anthropocentrism, no basis for conservation is likely to trump immediate human needs.

In previous years, conservation has been faulted for being unable to reach the masses. More recently there have been successful partnerships for conservation between science and religion. We should be motivating people by branching out in search of ideas that complement our own, rather than forcing them to choose between concepts that are in fact compatible.

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Letters to the Editor
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Response from Justus and Maguire

Mr. Espinoza has misinterpreted our view. Nowhere do we assert that intrinsic and instrumental values are incompatible, are mutually exclusive, or must *compete. At one point, we do suggest that an irreconcilable tension may exist between the emotional appeal of intrinsic value and the trade-offs required by conservation decisions. Given that our argument concerns only what decisionmaking requires, Mr. Espinoza's letter seems to illustrate this tension. We contend that instrumental value is a much more effective basis for conservation decisionmaking than intrinsic value, and we reject the pessimistic view that "humankind's anthropocentrism" means that no basis for conservation is likely to be effective. It is also not our intention to claim that the idea of intrinsic value is worthless; our focus is the inadequacy of intrinsic value as a basis for conservation decisions. As Mr. Espinoza's letter says, our piece alludes to the motivational nature of intrinsic value, and we explicitly mention its inspirational appeal. Of course, some instrumental values are similarly inspirational.*

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The Tragedy of Political Services

Lant and colleagues (2008) correctly identify social inefficiencies that cause the underprovision of ecosystem services. Ecosystem services are a case of positive externalities. They are nonexcludable—people benefit from them whether they pay or not. Because they get little or no compensation, landowners have little incentive to provide the services and to protect the ecosystems. Also, pollution and other negative externalities of human actions cause the decline of ecosystems and their services.

To increase efficiency, Lant and colleagues propose designing new democratic institutions with spatial and hierarchical structures congruent with the scale of ecosystem services. These institutions would collect taxes from the beneficiaries of ecosystem services and from agents that produce negative externalities, and reward landowners for the provision of ecosystem services, thus generating incentives for the cost-effective protection of ecosystems and biodiversity.

The problem with this idea is that the democratic political process also suffers from externalities. Just as landowners in a free market put their land to the most rewarding use for themselves, and not necessarily for society as a whole, political agents also look after their own interests.

The most basic ingredient of efficient democracy is a knowable and thoughtful electorate. However, voters have little incentive to spend the time and effort to inform themselves and think about the political issues—in our case, the details of environmental management. A voter's effort benefits the whole of society in a nonexcludable way, and only a small fraction of this benefit accrues to him- or herself. Voters who spend considerable effort in making up their minds end up reaping the same rewards as voters who spend little or no effort. As a result, most voters spend very little effort. Moreover, because the costs of bad policies are borne by all, and only a small fraction falls upon each voter, voters often indulge in self-

serving but irrational ideas that harm society—a case of negative externality. Caplan (2007) has found that voters have systematic biases that do not cancel out as simple random errors would. This leads to systematically bad policies. The same kind of analysis of self-interest and positive and negative externalities applies to politicians (who promise and enact policies that are popular instead of optimal), bureaucrats, and lobbyists.

Thus, Lant and colleagues want to address the externalities of commercial markets by creating a system that is also plagued by externalities. Political institutions will solve some problems, worsen others, and create new ones. Whether they work better or worse overall than traditional voluntary markets is an open, empirical question.

I agree with Lant and colleagues that some free-market mechanisms help to internalize externalities. As they discuss in more detail, a mechanism that may work at the local level is property bundling. Externalities and inefficiency arise when the spatial scale of environmental effects is larger than the size of properties. One way to internalize externalities is to increase the size of properties or to have lands potentially linked by externalities owned by a single individual, firm, or community. Property law should indeed evolve to facilitate forms of ownership that better deal with new environmental challenges.

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Response from Lant, Ruhl, and Kraft

Professor Fuentes raises a number of interesting points in response to our Forum article titled "The Tragedy of Ecosystem Services" (Lant et al. 2008), in which we present three approaches for dealing with the underprovision of ecosystem services: (1) the evolution of property rights, (2) reforming economic incentives, and (3) the development of ecosystem service districts. Addressing the second and especially the third remedy, Professor Fuentes argues, on the basis of Caplan (2007), that democratic political processes suffer from the "rational irrationality" of voters, derived from their lack of incentive to be informed on political issues and the systematic bias in the information they do use.

Caplan's thesis, however, is only one of many perspectives of voter behavior. Granted, voters and politicians today generally have a limited understanding of ecosystem services. That said, when scientists creatively engage voters and politicians—as they could do more effectively in demonstrating, for example, that lost wetlands could have significantly mitigated the storm-surge damages of $85 billion or more from Hurricanes Katrina and Rita (Colgan and Adkins 2006) and the $12 billion to $16 billion in property damages from the 1993 Mississippi floods (Galloway 1995)—constituencies can develop to protect and enhance such ecosystem services. What voters perceive as rational, in other words, is not beyond the influence of new information effectively presented about the connection between the environment and their pocketbooks.

Where circumstances allow, we agree that the difficult work of constructing markets does provide advantages, including a measure of economic rationality for both providers and beneficiaries of ecosystem services that voters and politicians sometimes lack (see Forest Trends et al. 2008, Willamette Partnership 2008, Wunder et al. 2008), but there are many instances in which the public sector is the most appropriate ecosystem service provider. We also agree with Professor Fuentes's suggestion that increasing the size of private or public property holdings can lead to political inequalities, but the evolution of property rights cannot be left out of the picture. Developing common property institutions, ecosystem service easements, and other institutional designs for new property configurations embracing ecosystem services are worth exploring.

Ultimately, however, and despite its flaws, actively engaging the political process in the importance of ecosystem services to human welfare is necessary, if the externalities envisioned by Professor Fuentes are not to result in the accelerating degradation of natural capital and the consequent loss of ecosystem services. Constructed markets and new theories of property rights are not sustainable if they do not enjoy legitimacy in the political realm.

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