

SCIENTISTS AND THE NEXT PRESIDENT OF THE UNITED STATES



Roger A. Pielke Jr.*

In January 2009, the United States will have a new president, and for many scientists, inauguration day cannot come too soon. The past eight years have been a time of intense conflict between the Bush administration and the scientific community. Areas of dispute have included access to the media by federal scientists, decisions that ignore or run counter to the advice given by scientific advisors inside or outside of government, the stacking of advisory committees with ideologically friendly experts, and research budget growth that has fallen short of expectations, especially in the last few years.

One of the most notable features of the new president is simply that he (or she) will not be George W. Bush, who will leave office as one of the most unpopular presidents in history among the American populace. But he is even more unpopular with the scientific community, especially in academia and government. Some of this surely reflects ideological differences between the views of many scientists and the administration on issues such as federal funding of stem cell research and federal action on climate change, as well as on issues outside of science, most notably the war in Iraq. Immediately upon taking office, the new president will find himself/herself at the beginning of a very warm and fuzzy honeymoon with the scientific community.

But don't expect the honeymoon to last very long. For several reasons, conflicts at the messy interface of science and politics are likely to reappear with a new president. First, advocacy groups have learned during the Bush administration that there is some public relations value in highlighting actual or perceived slights to experts who want to speak out on a particular topic. Under the next administration, the issues may not involve global warming and hurricanes or the President's Council on Bioethics, but you can be sure that the management of information will continue to pose challenges for any administration. The temptation to stack advisory committees won't go away, and advocates on all sides of issues will now be watching these processes far more carefully than in the past.

Second, on the most hot-button issues of our day, it is unlikely that a new face in the White House will mean dramatic changes in some policies. Consider that both Hillary Clinton and John McCain have proposed a "gas tax holiday" to make the cost of energy cheaper, while many scientists support actions to make energy more costly. Similarly, whoever wins the election will have to work within a very tight federal budget. Difficult choices will have to be made about research and development priorities, meaning that there will be winners and losers. Whoever occupies the White House will face difficult choices sure to run counter to the views held by many in the scientific community.

Finally, today many policy issues involve considerations of science, such as the role of biofuel production subsidies in global food prices, the role of stimulating technological innovation in economic growth, and the proliferation of nuclear weapons. On these issues advocates with com-

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peting political views will always selectively use and misuse science to advance their agendas. As appeals are made to science, more scientists will feel compelled to enter the fray, either on their own or on behalf of interest groups, further contributing to the politicization of science.

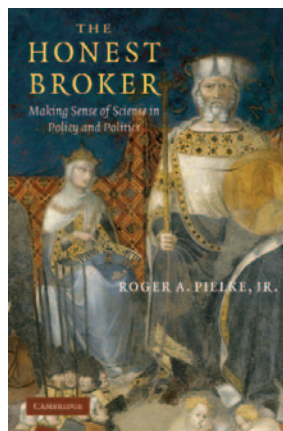
Is there anything that the scientific community can do to help encourage a healthy interaction of science and politics? There are a number of actions that make sense, and each starts with recognition that science and politics are necessarily intermixed. Steps toward a healthy interaction lie not in trying to keep them separate, but in developing effective ways to manage that messy relationship.

One step that might be taken immediately is to more effectively formalize the process of meeting the information needs of policy makers. Often, decision makers need answers to specific questions that are best addressed by science, including the relevant range of uncertainties. But there is a lack of effective mechanisms to elicit these questions and develop answers. The National Research Council increasingly has taken on this role, and it could be much further developed, building on the experiences such as that of the defunct congressional Office of Technology Assessment and other relevant advisory bodies.

Another useful strategy would be to develop more explicit guidance for expert advisory committees to go beyond the discussion of technical matters by presenting a wide range of policy options to decision makers. This would require thinking about scientific advice and its implications more comprehensively, because discussion of policy options requires integrative, interdisciplinary knowledge. For example, the White House science office could contribute to this process by serving as an in-house

"think tank" for the president, presenting options for action, rather than pressing for a specific action. Presenting options would help preserve the public credibility of the science adviser by clearly delineating the differences between advice, advocacy, and decision making.

These strategies are a subset of the various roles that scientists (and other experts) can play when working with decision makers. In my book *The Honest Broker* I present four roles as ideal types.



The Pure Scientist – seeks to focus only on facts and has no interaction with the decision maker. Whether such people exist in reality or only in myth is a topic of much discussion in the academic science studies community.

The Science Arbiter – answers specific factual questions posed by the decision maker, much like a concierge at a hotel helping you to decide what restaurant to eat dinner at tonight.

The Issue Advocate – seeks to reduce the scope of choice available to the decision maker. In recent years many scientists have become more involved in advocacy, a trend that is unlikely to stop.

The Honest Broker of Policy Options – seeks to expand, or at least clarify, the scope of choice available to the decision maker. This role is best served by authoritative committees or groups that represent diverse points of view. It is the most difficult to implement in practice.

How does one decide what forms of advice make sense in what contexts? In *The Honest Broker* I argue that a healthy democratic system will benefit from the presence of all four types of advice, but, depending on the particular context of a specific decision, some forms of advice may be more effective and legitimate than others. Specifically, I suggest that the roles of Pure Scientist and Science Arbiter make the most sense when

This Triple Point column brings our readers to the intersection of science and the development of public policy.

Cont'd on page 155



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TRIPLE POINT *(cont'd from page 151)*

values are broadly shared and scientific uncertainty is manageable (if not reducible). An expert would act as a Science Arbiter when seeking to provide guidance to a specific decision and as a Pure Scientist if no such guidance is given. In situations of values conflict or when scientific certainty is contested (that is to say, most political issues), the roles of Issue Advocate and Honest Broker of Policy Options are most appropriate. The choice between the two would depend on whether the expert wants to reduce or expand the available scope of choice.

For the U.S. scientific community, the election of a new president provides an opportunity for rethinking and reinvigorating how experts relate to decision makers. It won't be enough for the scientific community to focus only on what person or party inhabits the White House. Far more attention will have to be paid by the scientific community to the nuances of policy making and the various roles of expertise in healthy processes of democratic governance. Such discussions should start now so that by inauguration day, the community is ready to begin fresh with the new president.

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