Climate Change E-mail Scandal Underscores Myth of Pure Science

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As two scholars with different political orientations but common concerns, we have each worked to challenge conventional wisdom that has undermined public understanding of the climate change problem. Many Republicans have been too reluctant to acknowledge strong evidence of human-caused warming and the need for prudent policies that could reduce its harmful effects. Democrats have let their own political judgments and values infect climate science and its interpretation, often understating the uncertainties about the timing and scale of future risks, and the tremendous costs and difficulties of effective action.

Yet both parties have agreed, although tacitly, on one thing: Science is the appropriate arbiter of the political debate, and policy decisions should be determined by objective scientific assessments of future risks. This seductive idea gives politicians something to hide behind when faced with divisive decisions. If "pure" science dictates our actions, then there is no need to acknowledge the role that political interests and social values play in deciding how society should address climate change.

The idea that pure, disinterested science should decide political disputes was a staple of Democratic politics during the George W. Bush administration. Now it's payback time, as Republicans gloat over an alleged "smoking gun" of scientific misconduct provided by recently released e-mails from the University of East Anglia's Climatic Research Unit. After decrying the "Republican war on science," Democrats are hard-pressed to explain the discovery of their own partisans in the scientific trenches.

We believe the weight of scientific evidence remains sufficient to justify prudent action against climate change

We do not believe the East Anglia e-mails expose a conspiracy that invalidates the larger body of evidence demonstrating anthropogenic warming; nevertheless, the damage to public confidence in climate science, particularly among Republicans and independents, may be enormous. The terrible danger--one that has been brewing for years--is that the invaluable role science should play in informing policy and politics will be irrevocably undermined, as citizens come to see science as nothing more than a tool for partisans of all stripes.

Central to this disaster has been scientists' insistence that they are unsullied providers of truth in an otherwise corrupt and indecipherable world. It was never so. Scholars continue to argue over whether such titans of science as Pasteur and Millikan lied, cheated and fabricated results or were simply exercising good scientific intuition. Popular chronicles of real-world science such as "The Double Helix" demonstrate that, in practice, science is competitive, backbiting, venal, imperfect and, indeed, political. Science, in other words, is replete with the same human failings that mark all other social activities.

Moreover, problems such as climate change are much more scientifically complex than determining the charge on an electron or even the structure of DNA. The research deals not with building blocks of nature but with dynamic systems that are inherently uncertain, unpredictable and complex. Such science is often not subject to replicable experiments or verification; rather, knowledge and insight emerge from the weight of theory, data and evidence, usually freighted with considerable uncertainty,

disagreement and internal contradiction.

Thus, we write neither to attack nor to defend the East Anglia scientists, but to make clear that the ideal of pure science as a source of truth that can cut through politics is false. The authority of pure science is a two-edged sword, and it cuts deeply in both directions in the climate debate: For those who favor action, the myth of scientific purity confers unique legitimacy upon the evidence they bring to political debates. And for those who oppose action, the myth provides a powerful foundation for counterattack whenever deviations from the unattainable ideal come to light.

East Anglia researchers and their defenders claim they succumbed to paranoia and secrecy only as a result of relentless pressure from their enemies. Critics argue that the e-mails reveal the science to be biased and subjective. Neither side acknowledges the underlying, uncomfortable reality: When the politics are divisive and the science is sufficiently complex, the boundary between the two may become indiscernible.

The real scandal illustrated by the e-mails is not that scientists tried to undermine peer review, fudge and conceal data, and torpedo competitors, but that scientists and advocates on both sides of the climate debate continue to claim political authority derived from a false ideal of pure science. This charade is a disservice to both science and democracy. To science, because the reality cannot live up to the myth; to democracy, because the difficult political choices created by the genuine but also uncertain threat of climate change are concealed by the scientific debate.

What is the solution? Let politics do its job; indeed, demand it.

We do not believe that climate change is merely a Trojan horse for a Democratic dream of destroying global capitalism. Nor do we believe that Republicans are so bent on maximizing the profits of the fossil fuel industry that they are choosing to consign their grandchildren to a ruined world. Yet these are only slight caricatures of the fantasies that each side cherishes about the other because the true complexity of the climate debate has been camouflaged by the myth of pure, disinterested science.

That myth has allowed politicians to shirk their responsibility to be clear about the values, interests and beliefs that underpin their preferences and choices about science and policy. Better to recognize that decision-makers, depending on their political beliefs, will weigh the evidence and risks of climate change differently when evaluating policy options. Their choices will influence the distribution of benefits and costs, and will have varying and uncertain prospects for success. Voters should evaluate the decisions on that basis, rather than on the false notion that science is dictating the choices.

Can science and politics recover from the damage done in the name of scientific purity? We believe the weight of scientific evidence remains sufficient to justify prudent action against climate change--but we are equally aware that the consequences of both climate change and climate policies remain highly uncertain.

The choices are extraordinarily difficult; the costs of action, and inaction, are potentially momentous. No one can know what the "right" decisions will be, but the e-mail controversy reminds us that imperfect people, not pure science, must decide that question. This is a job for democratic politics, informed by, but not shackled to, a pluralistic, insightful and imperfect scientific enterprise.

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