

The Enlightenment Returns

The authors of the Declaration of Independence and the Constitution of the United States were children of the Enlightenment. They understood the power that flows from combining human reason with empirical knowledge, and they assumed that the political system they were creating would thrive only in a culture that upheld the values of the Enlightenment. And thrive it did, in large part because our people and government upheld those values throughout most of U.S. history. Recently, however, the precepts of the Enlightenment were ignored and even disdained with respect to the manner in which science was used in the nation's governance. Dogma took precedence over evidence, and opinion over facts. Happily, as was made clear by two policy announcements by President Barack Obama on 9 March 2009, the break in the traditionally harmonious relationship between science and government is now ending.

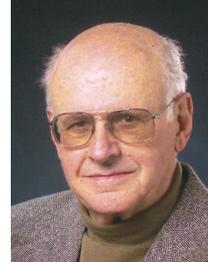
The first announcement, which dealt decisively with a single important and politically volatile issue, the funding of stem cell research, received the most attention. But the second, on scientific integrity, has greater breadth and at least equal significance. For as the president put it, "promoting science isn't just about providing resources—it is also about protecting free and open inquiry . . . free from manipulation or coercion, and listening to what [scientists] tell us, even when it's inconvenient—especially when it's inconvenient." In using the words "manipulation" and "coercion," the president was not speaking purely in the abstract; he was alluding to recent breaches of a code to which government must adhere if science is to play its proper role in advising the government on such complex issues as public health, climate change, or environmental protection. When the government systematically disregards this code, it undermines the historic role of science as a bulwark of an enlightened democracy.

In the president's Memorandum on Scientific Integrity last week, addressed to the heads of all executive departments and agencies, he directed those officials to neither suppress nor alter scientific and technological findings solicited in the process of policy formulation. He also asked that scientific information developed or used by the government be made readily available to the public. To put these directives in place, the president requested the director of the Office of Science and Technology Policy to develop, within 120 days, recommendations "designed to guarantee scientific integrity throughout the executive branch" and to ensure "that scientific data is never distorted or concealed to serve a political agenda."

The recommendations called for to sustain these bold ambitions would place scientific competence and integrity among the core principles of the government's science-based endeavors. For example, they should ensure that the selection of scientists for government positions is based on scientific qualifications and experience, establish means for addressing instances in which scientific integrity may be compromised, and provide protections for those who draw attention to possible assaults on the integrity of scientific advice. The need for these measures derives, in part, from the many well-documented cases in which scientific integrity was recently breached, as when political appointees shut government scientists out of critical decisions that hinged on scientific information, prevented the transmission of scientific reports to Congress, appointed unqualified individuals to scientific panels because of their ideological or political persuasion, or censored government reports dealing with climate change and species extinction.

The U.S. scientific community now has an opportunity to strengthen the president's initiative by informing students, colleagues, and fellow citizens about the issues at stake; by willingly offering professional advice to government either informally or when invited to serve on agency panels; by supporting and encouraging scientists who are considering careers in government; or by taking a turn in government service. The president has taken a large and inspiring step to restore the historically beneficial balance between science and government; we should all now offer to help with the enlightened effort just launched.

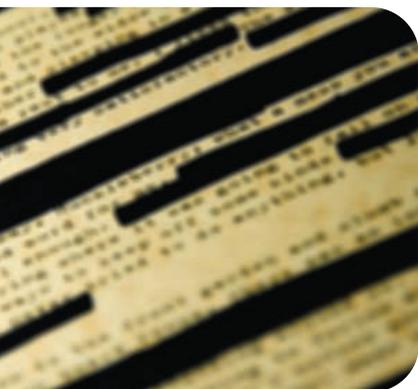
— Kurt Gottfried and Harold Varmus



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