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## The Political Misuse of Science

In August of 2005, US President George W. Bush effectively endorsed teaching intelligent design (ID) alongside evolution in high school biology classes. ID holds that certain

features of the universe and of living things are best explained by an "intelligent cause" rather than a physical process such as natural selection or molecular reactions. Less than three months later, the Kansas State Board of Education in the American Midwest approved new high school science standards that cast doubt on the theory of evolution, opening the door for teaching ID. To do so, the Kansas school board also approved a redefinition of science, stating that science is no longer limited to the search for natural explanations of phenomena.

Scientists are generally highly respected by society at large. In public opinion polls that I have seen in the last few years, the public trusts scientists for being unbiased even more than they do judges. Scientists are viewed as well-trained practitioners of astute observation and calculation, framed without bias. Sure, the system is not perfect. Some examples of scientific fraud, perpetrated by misguided scientists for personal gains, are well known. The good news is that these incidents are extremely rare considering the enormous numbers of scientific endeavors that occur each day in labs and field studies around the world, conducted by hundreds of thousands of scientists. Therefore, society's view of scientists is somewhat predictable. One of the long-term benefits of this is that science is relatively well funded, especially considering that it is often competing for funding with pressing societal needs.

With the backdrop of the Kansas situation, the public's inherent trust of scientists, and the often generous financial support of fundamental scientific endeavors (e.g. see the costs of user facilities described in this issue), a dangerous trend involving the misuse of science, for political and ideological gain, has been developing. This trend is now the target of numerous investigative reports (many extensive) in the print, radio, and television media. The evidence is clear, the conclusions from it inescapable. A growing number of politicians, especially in the United States, wielding tremendous power and influence, are denying, distorting, or otherwise misusing scientific findings and reports that they find inconvenient or contradictory towards their

programmed political or ideological agenda. And it goes well beyond the selling of ID as science to an unsuspecting American public.

Given the overall and overwhelming trust of science and scientists, it was hard at first to notice this storm as it was gathering. Was the suppression of a White House Office of Science report on the detrimental effects of acid rain during the Reagan years just a blip on the radar screen? Not many people noticed at the time, at least compared to how many people are noticing now. At issue: the political misuse of science now seems to have hit alarming levels, at least in the United States. Among many examples, perhaps the one most indicative of the seriousness of this trend is the misrepresentation and blatant misuse of the 2001 report from the US National Academy of Sciences (NAS) in its unequivocal endorsement of the 2001 United Nations' Intergovernmental Panel on Climate Change (IPCC) findings. Historically, this IPCC report may stand as the long-term scientific land-

mark work on the influence of humans on average global temperature rise and ultimately, human-driven global climate change. Yet the Bush administration has continuously softened the language of the IPCC and NAS reports. In one celebrated case that came to light in the summer of 2005, the New York Times reported that Mr. Philip Cooney, the Chief of Staff for the White House

Council on Environmental Quality, diluted scientific wording in a key 2003 US Environmental Protection Agency report that clearly made the connection between greenhouse gas emissions and global climate. Mr. Cooney is a lawyer with no scientific training.

The late pre-eminent anthropologist Joseph Campbell celebrated the spiritual awakening of the earliest peoples, and tried to find unity in the religions of today, while at the same time recognizing the ancient to modern influence of science and technology on belief systems. The late Pope John Paul II, a human and religious icon revered around the world, accepted the modern theory of evolution. Within their own personal callings, these men spent brilliant lifetimes spinning new understanding into their web of the world and beyond. Neither would ever have dreamed of distorting, suppressing, or misusing legitimate, consensus-based scientific research. Those who would do otherwise, to promote personal, political, or ideological agendas, must be exposed and put aside.

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