

COMMENT AND OPINION

Onward Science Soldiers

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In a poll taken in 1998, only 7 percent of the members of the U.S. National Academy of Sciences, the elite of American scientists, said they believed in a personal God (Larson and Witham 1998). While the percentage is undoubtedly greater in the U.S. scientific community as a whole, it is probably safe to say that the majority of American scientists are nonbelievers, in marked contrast to the general public.

Nevertheless, most scientists seem to prefer as a practical matter that science should stay clear of religious issues. This is a good strategy for those who wish to avoid conflicts between science and religion, which might lead to less public acceptance of science and that most dreaded of all consequences—lower funding. However, religions make assertions about the natural world, and these have no special immunity from being examined under the cold light of critical analysis. Scientists are abdicating their responsibilities when they avoid applying their expertise to evaluate religious claims that can be tested against empirical facts, especially when religious thinking is used to override science in the making of public policy.

In one of its official statements supporting evolution, the Academy states, “Science is a way of knowing about the natural world. It is limited to explaining the natural world through natural causes. Science can say nothing about the supernatural. Whether God exists or not is a question about which science is neutral” (National Academy of Sciences 1998). This is simply untrue.

Not only can science examine any claim that bears on empirical data, reputable scientists from reputable institutions are doing just that, for example, in controlled experiments on the efficacy of intercessory prayer.

In the battle between evolution and creationism, the political strategy adopted by many scientific organizations such as the Academy and the National Center for Science Education has been to seek support of Catholics and moderate Christians whose clergy have stated their support for evolution. The uncomfortable fact that evolution implies humanity is an accident, rather than the special creation of God in his own image, is conveniently swept under the rug.

But there are worse things happening in America and the world as the direct result of religious thinking than children hearing the dreaded word *creation* in the classroom. Both abroad and at home, we are engaged in cultural wars that threaten the very existence of secular society and the health, safety, and well-being of humans everywhere. Islamic radicals have declared war on the modern world and are steadily gaining adherents in all countries with large Muslim populations. George W. Bush’s War on Terror, which he has characterized in religious terms as a holy war of good against evil, has advanced rather than deterred this trend.

The born-again U.S. president has based his policies, foreign and domestic, on faith rather than evidence—faith that his own instincts are divinely

inspired and any evidence that contradicts these instincts may be ignored and even suppressed.

A series of recent books has extensively documented how a small group of influential Christian extremists, with large financial resources at their disposal, have taken control of the Republican party and used churches to build enough support at the polls to gain control of the White House and Congress in 2000 and 2004 (Mooney 2005, Phillips 2006, Goldberg 2006, Linker 2006, Hedges 2007). Only with the 2006 mid-term election has their influence slipped. But this may be attributed to the unmitigated disaster of Iraq rather than any sea change in public opinion. You can bet these groups have not thrown in the towel on their goal of converting America to a Christian theocracy.

Let me list some examples of Bush policies that are founded in theology rather than evidence and how he and his administration have acted to suppress scientific studies that contradict the faith-based assumptions that lie behind these policies.

In one of his first acts as president, Bush restored a gag rule on aid to international organizations that counsel women on abortion. Of millions of dollars spent on preventing and treating AIDS in Africa, 30 percent was earmarked for promoting sexual abstinence and none for condoms. Here at home, \$170 million was spent in 2005 alone on promoting abstinence-only sex education in schools. The Centers for Disease Control was pressured to remove from its Web site scientific findings that abstinence-only programs do not work. According to a 2003 report issued by Democratic Congressman Henry A. Waxman and the minority staff of the Government Reform Committee, the Bush administration modified performance measures for abstinence-based programs to make them look effective.

Similarly, under pressure from conservatives in Congress, a National Cancer Institute Web site was changed to reflect the view that there may be a risk of breast cancer associated with abortions, a claim made by evangelicals that has no scientific support (Mooney 2005, pp. 206–207).

Bush's obstruction of stem-cell research, which holds promise to provide a wide range of therapies, is based on the theological view that a 150-cell embryo contains a human soul. While scientists may prefer to remain neutral on the matter of souls, they should point out that an embryo cannot suffer while stem-cell research could result in the reduction of real suffering in fully developed humans (Harris, 2005, pp. 165–167; Mooney 2006, pp. 185–204).

Bush's appointee to the FDA's Reproductive Health Drugs Advisory committee, gynecologist W. David Hager, is an evangelical who prescribes Bible readings to treat premenstrual syndrome. Hager was primarily responsible for the FDA blocking over-the-counter sales of the birth-control drug known as Plan B. This was despite testimony before his committee by a scientific advisory panel that "Plan B was the safest product that we have ever seen brought before us" (Mooney 2005, pp. 215–220).

Evangelicals have also influenced Bush administration policies on the environment, leading the White House to intervene in 2003 to remove cautions against global warming from a report on the environment (Mooney 2005, p. 90). More recently, Bush has seemed to make an about-face on global warming, but NASA is still delaying or canceling a number of satellites designed to obtain critical information on Earth climate. Bush gives the Space Station higher priority, despite the fact that a consensus of scientists regard it as scientifically useless.

In October 2005, George Deutsch, a presidential appointee at NASA headquarters, sent an e-mail message to Flint Wild, a NASA contractor working on a set of Web presentations for middle-school students. The message said the word "theory" should be added after every mention of the big bang. The big bang is "not proven fact; it is opinion," Mr. Deutsch wrote, adding, "It is not NASA's place, nor should it be, to make a declaration such as this about the existence of the universe that discounts intelligent design by a creator" (Revkin 2006b). This was just another instance where NASA scientists were pressured to limit discussions on

topics uncomfortable to the Bush administration, including global warming (Revkin 2006a).

While scientists have begun to speak out on these issues, they have not directly confronted the religious thinking that forms the basis of these policies. Presumably, they fear offending “deeply held beliefs.” I am pleading that religion no longer be given this free ride. The stakes are too high.

Let science compete with religion in the marketplace of ideas. Scientists should question religious assumptions just as they question those of other scientists. And they should vigorously protest whenever faith is used to suppress sound scientific results.

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Victor J. Stenger's latest book, God: The Failed Hypothesis. How Science Shows that God Does Not Exist, has made the New York Times bestseller list.