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BioScience

American Institute of Biological Sciences

The New Creationism and Its Threat to Science Literacy and Education

Just how widespread is science literacy in the United States? That this country is the acknowledged leader of scientific research in terms of quantity and overall quality suggests our scientific enterprise is robust. Nevertheless, there is evidence that most US citizens have a poor understanding of science and only marginal interest in it (see the latest National Science Foundation survey on science indicators at www.nsf.gov/sbe/srs/seind02/c7/c7h.htm).

The most publicly contentious issue in science—the teaching of evolution—illustrates the point: About half of those surveyed by NSF do not believe humans evolved from earlier species, and two-thirds think that creationism should be taught alongside evolution in public schools. But there is some good news: Acceptance of human evolution inched into the majority for the first time (53 percent). Moreover, according to a poll by People for the American Way (www.pfaw.org/pfaw/general/default.asp?oid=2095), a substantial majority (83 percent) think that evolution should be taught and that it is not incompatible with a belief in God (70 percent). One conclusion from this is that despite the substantial number of people in this country who are steeped in mysticism and supernaturalism—among their beliefs are astrology, UFO landings, and the stuff of séances—Americans' common sense and pragmatism can rise to the surface.

These encouraging signs tend to get lost in the ongoing hullabaloo over “intelligent design creationism” (IDC). Creationism—and this is true of all its guises—is an anti-scientific worldview. It rejects the fundamental precept of science that phenomena in the natural world should be interpreted through naturalistic explanations that are accepted (always tentatively) or rejected by reference to observation. Followers of IDC are no different from the creationists of old; at some point each wants to back away from rational scientific inquiry and explain phenomena by appeal to supernatural causation.

Although the IDC propaganda machine is focused on getting creationism in the public schools, this Trojan horse hides a more concerted attack against science education in general. As did the creationists before them, IDC adherents use evolution as a “wedge” to dismantle the naturalistic foundation of all science (if this sounds far-fetched, see www.ncseweb.org/resources/articles/6786_unlocking_the_mystery_of_illus_7_1_2003.asp). Although not all proponents of IDC are biblical fundamentalists, for each some scientific finding will eventually be considered threatening to their religious beliefs. They organize around such threats, misrepresenting contemporary science and manipulating the emotions of others, many of whom do not share their narrow religious viewpoints. To allow their biblical interpretations to be taught as science, however, is an affront to this nation's constitutional protection to worship as one pleases. A religious worldview, under the pretext of science, should not be imposed on children in the public schools—hence the need for science education that deals squarely with the nature of scientific inquiry.

AIBS, in collaboration with the National Center for Science Education, is working to meet the challenge of creationism (see www.aibs.org and www.ncseweb.org). Over the course of this year, AIBS will be launching new educational initiatives, including a symposium at the 2004 annual meeting of the National Association of Biology Teachers (www.nabt.org), to expand and improve the teaching of evolution. It is critical that all scientists, including nonbiologists, see themselves as part of this effort.

JOEL CRACRAFT
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