

Creationism Case Goes to Supreme Court

The U.S. Supreme Court has agreed to adjudicate the constitutionality of a state law that seeks to give creationism equal time with the teaching of evolution in Louisiana public schools. The case, which will be heard in the fall, will be the culmination of a 5-year legal battle.

The law, which was approved by the Louisiana state legislature in July 1981, requires the teaching of so-called "creation science" in the public schools alongside the teaching of evolution. It was struck down by Judge Adrian Duplantier in January 1985 on the grounds that it violated the constitutional separation of church and state by promoting selected religious beliefs. A similar law in Arkansas was struck down in 1982 on the same grounds.

Duplantier's ruling was upheld by a 3-member panel of the 5th Circuit Court of Appeals last July, and in December, the full appeals court narrowly rejected a motion to hear an appeal of the panel's ruling. The vote was 8 to 7. Undaunted by three successive legal defeats, the Louisiana attorney general is now taking the case to the Supreme Court.

Although the Supreme Court in 1968 overturned an Arkansas law that banned the use of textbooks that teach evolution, this will be the first time it will pass judgment on the constitutionality of laws requiring equal treatment of creationism and evolution. The outcome will have an impact extending well beyond Louisiana. ■ COLIN NORMAN

House Policy Group Reviews Science Academies

To protect its good name, the National Academy of Sciences (NAS) politely turned aside an offer of financial help from some congressmen on 8 May. The offer came during a session of the House Science Policy Task Force, which was engaged in a review of "the role of the academies." It was part of an ongoing study of national science policy, directed by the chairman of the Science and Technology Committee, Representative Don Fuqua (D-FL).

For the most part, the NAS and its sister organizations, the National Academy of Engineering and the Institute of Medicine,

depend on federal research projects. NAS President Frank Press said that during his 5 years at the helm, 300 reports have been issued, at the voluminous rate of about one a week. The majority were commissioned by the federal government.

Recently, the academies have been trying to increase their private income by soliciting large donations. They hope to stabilize their finances this way, strengthen their independence, and take on more work of their own choosing.

At the hearings on 6, 7, and 8 May, Representative George Brown (D-CA) said Congress might be willing to contribute to this effort, if Press would only ask for the contribution. But Press would not, saying he thought it would put the institution too much in Congress's debt. He was leery of such intimacy, for "We must walk a narrow line" between being too much and too little engaged in political issues of the day.

Earlier, Fuqua said the academies' growing reliance on corporate gifts might carry a different kind of taint. (The NAE is midway in a campaign to raise \$30 million from companies for studies on industrial competitiveness.) Fuqua asked whether the academies might not be perceived as spokesmen for industry. Press and NAE president Robert White responded that every report identifies its sponsors, and that the academies do not accept gifts with strings attached.

But one witness did look favorably on the idea of some form of general congressional support. Denis Prager of the John D. and Catherine T. MacArthur Foundation in Chicago called himself a "strong advocate" of the effort to build an endowment and supported the idea of a "one-time congressional appropriation to the Academies for the purpose of aiding . . . their independence and autonomy. This could be done on a matching basis to encourage and reward private-sector contributions." Prager, who has worked with Press at the NAS and, before that, in the White House Office of Science and Technology Policy, mentioned \$100 million as a possible federal contribution.

President Reagan's former science adviser George Keyworth II, was another witness. He voiced some praise and mild dissatisfaction with the academies. One criticism, which he shared with Prager, is the length of time it can take for academy groups to complete a study. Government, both noted, often needs advice quickly.

"My own prescription for changing that situation is to encourage the science community, and certainly the academies, to explore ways to broaden not so much their participation as their contribution to *solving* policy problems. That means better understanding the real, as opposed to ideal, world

in which political action inevitably takes place," Keyworth said. "An insistence on lengthy studies 'too often renders their expertise irrelevant.'"

Keyworth said his first encounter with the academies and professional societies in 1981 was "discouraging." He was trying to set priorities for R&D funding in a tight budget, and he claims to have had little assistance. The astronomers were the most helpful, for they "periodically bit the bullet and published a rank-ordered list of facilities they believed should be funded." The physicists were next, but "a long way down the list." But Keyworth said "most of the rest of the disciplines simply lacked the resolve or the pressure to say one part of their field was more important than another, so their 'recommendation' was usually to provide increased funding across the board. . . ."

He praised later sessions with the Committee on Science Engineering, and Public Policy, for he said the group stopped trying to "educate" the White House about the needs of researchers and began to provide critical analyses of particular areas of research."

Prager decried "the tendency over the last several years for the three academies to become 'job shops' competing with all the other contract research organizations in Washington for federal agency dollars." It is hard to be unbiased and objective when you are "completely dependent for your survival" on an agency that "strongly prefers a study outcome consistent with a stand it has already taken." The problem, he declared, applies not only to the independence of the academy complex but to government offices as well.

A glaring example of how this environment can corrupt a scientific institution, Prager said, may be seen in the decline of the White House Office of Science and Technology Policy (OSTP). When Keyworth arrived in 1981, he promised an office free of political or ideological bias. But, Prager said, "In a relatively short time, Dr. Keyworth became a strong partisan and outspoken political advocate, eschewing objectivity and embracing a number of Presidential political positions to which he was previously unalterably opposed (including . . . the Strategic Defense Initiative)." Since 1981, the OSTP has become "a highly politicized office dedicated primarily to furthering the President's goals and programs in defense, space, and industrial competitiveness." As a result, he said, OSTP has not been able to give sound advice on such issues as acid precipitation, chemical warfare (Yellow Rain), or the health effects of the defoliant known as Agent Orange. By contrast Prager said in praise of his former boss,

when Press was science adviser he "strived particularly hard to protect the objectivity" of OSTP.

Although Prager cited a number of concerns about the quality and political usefulness of academy reports, he said "it is my perception that the National Academies of Science and Engineering have, overall, done an excellent job . . . but that the Institute of Medicine has yet to attain its full potential." He added that changes being made by the new president, Samuel Thier, are encouraging. For example, Thier aims to provide expert advice on major issues within 6 months of receiving a request (a new AIDS policy study is an example), and reports that IOM recently gave advice to the Food and Drug Administration on two issues within a week of being asked. In addition, the institute is looking into new ways of disseminating its findings, including the use of instructional video tapes and popular books." ■

ELIOT MARSHALL

DOD Backtracks on Grants to SDI Critics

Apparently in response to internal and external criticism, the Department of Defense has officially disassociated itself from views recently expressed in *Science* by Donald Hicks, the under secretary of defense for research and engineering. In an interview reported on 25 April (p. 444), as well as a congressional hearing last July, Hicks indicated that academics who are publicly critical of the President's "Star Wars" program will have a tough time receiving future Defense Department funding.

"If [the opponents] want to get out and use their roles as professors to make statements," Hicks told *Science*, "that's fine, it's a free country. [But] freedom works both ways. They're free to keep their mouths shut . . . [and] I'm also free not to give the money." His remarks subsequently generated some heated criticism from officials of the American Physical Society (APS), as well as a handful of university officials. "Everybody was upset by this," said one Pentagon research official. "It was a bit embarrassing."

Responding to requests from several newspapers for an official comment, the Department of Defense office of public affairs prepared a statement affirming that Hicks was accurately quoted. "However, it must be understood that he was speaking hypothetically," the statement said. "It is not DOD policy to review researchers' opinions prior to awarding them contracts. This is

not written or unwritten policy. Awards to researchers are made strictly on a merit basis. The reporter for *Science* and the congressional committee members had asked for Dr. Hicks's hypothetical opinion, which he provided to them."

In the initial interview, Hicks was asked whether he was expressing his personal opinions or outlining a new policy. He replied that "there's no edict, there's no regulation," but that in the future, researchers' views on SDI will indeed be "one of the elements" that he considers in final deliberations on academic grants, particularly "for someone who is not vital" to the department's needs. He affirmed this in a telephone conversation on 9 May, several days after the official DOD statement was released.

"What I said is not DOD policy, and probably never will be for political reasons," Hicks explained. "I was just explaining what I would do. But I don't have the final say in any of this. I don't have total control." Hicks added that in the circumstance described, he will indeed recommend internally that no Pentagon funding be provided to vocal SDI critics, "and that may carry some weight. . . . A person whose name had been up in the press might not get any money." But Hicks added that he has "no idea" if his views will actually carry the day.

Appraised of the DOD statement, Robert Parks, a physicist at the University of Maryland who directs the Washington office of the APS, says that "even if the Pentagon issues some kind of retraction, it has still cast a chill over public debate" on the controversial missile defense program. The public, he adds, "is entitled to hear the experts debate the issues freely without bribery or coercion. Why people who set themselves up to defend us from the Soviets keep trying to do it by emulating the Soviets is something I've never quite understood." ■

R. JEFFREY SMITH

Senate Tax Bill Draws Few Protests From Research Community

The research community has emerged from the Senate Finance Committee's tax reform wranglings nicked, but in relatively good shape. The far-reaching legislation, passed unanimously by the committee on 7 May, while lowering personal income rates to 27% and corporate rates to 33%, slightly tempers the climate for research in both the academic and industrial sectors. Still, the

legislation, which is expected to be taken up by the full Senate in June, appears to be acceptable to a broad spectrum of academe and industry.

The R&D tax credit would be extended for 4 years at the current rate of 25%. The definition of research is to be altered under the legislation and university-based research will be encouraged. Specifically, it would allow industry to claim a 20% credit on top of the base credit for the first year of a new research endeavor with a university.

Capital gains treatment under the legislation calls for taxing profit on investments at the top personal rate of 27%. This is expected to dampen investor enthusiasm for high-risk companies. "It's going to be more difficult now to raise venture capital," says Robert A. Ragland, assistant vice president for taxation at the National Association of Manufacturers. But he notes that if the Senate bill eventually becomes law "venture capital will continue to flow." Indeed, Linda I. Miller, an analyst with Paine Webber, Inc., says there "still will be considerable interest" in high-technology and biotechnology ventures.

The proposal to drop the investment tax credit will be missed by industry says Ragland, but to varying degrees, depending how individual companies fare under the lower tax ceiling—33% versus 46%. Yet another factor that may soften the impact of the loss of this 10% credit are tweaks in accelerated depreciation schedules. Semiconductor manufacturing equipment would be depreciated over 3 years. Research and experimentation property would be depreciated over 5 years through 1989 and on a 3-year basis thereafter.

The Senate would continue to allow states to raise student loan money through the use of tax-free industrial development bonds (IDB's). The Senate bill provides that IDB's may continue to be used to finance university-industry research facilities, so long as royalty rates are not fixed in advance on resulting technology.

With respect to scholarships and fellowships, the Senate retains current law. Legislation proposed by the House would make taxable the balance not required for tuition and equipment. On another front, the value of faculty housing would be excluded from a professor's gross income so long as the annual rent exceeds 5% of the property's appraised value. Unaffected by the legislation is the faculty retirement plan used by much of academe. Earnings on investments by the Teachers Insurance and Annuity Association and the College Retirement Equities Fund (TIAA-CREF) retain nontaxable status, as provided under current law. ■

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