

Evolution Wars Show No Sign of Abating

Scientists have been fighting creationists and intelligent-design advocates on school boards and in state legislatures, the courts, and even the Smithsonian Institution.

In Tulsa, Oklahoma, there is the fight at the zoo about Ganesha, the Hindu elephant-headed deity, who is portrayed, along with the Republican Party elephant, in front of the pen holding the actual elephants. If the Hindus can have their god portrayed at the zoo, a creationist asked the zoo board, why can't the biblical story of creation be there, too?

In Cobb County, Georgia, there is the court case about the evolution-warning stickers placed in some 34 000 of the county school district's biology textbooks. The school district is appealing a court order that found the stickers unconstitutional for violating the First Amendment's Establishment Clause and forced their removal. And in Kansas, after scientists boycotted a four-day "hearing" on evolution called by antievolutionist members of the Kansas Board of Education, the state's proposed new science standards may encourage science teachers to discuss intelligent-design criticisms of evolution.

Darwinism seems to be under increasing attack, both directly and indirectly, all across the US. Even the Smithsonian Institution's National Museum of Natural History has been a battleground in the evolution-versus-creation war—although that controversy involved intelligent-design advocates who argue they are different from creationists.

Antievolution movements historically seem to run in cycles, and Glenn Branch, deputy director of the National Center for Science Education (NCSE), attributes the current wave in part to the No Child Left Behind Act, signed by President Bush in 2002. The act mandated new school standards, which include new science standards, Branch said. As older biology standards are being reexamined, evolution is taking center stage "and there has been a backlash," he said.

Branch gives some credit for the antievolution push to the Seattle-based Discovery Institute, a nonprofit think tank that promotes the notion that the universe contains objective evidence of intelligent design.

There is also the internet, he said. "It used to be people had to go into Christian bookstores to find antievolution material. Now it is easily accessible on the internet."

Underlying all those factors is the "growing influence of fundamentalist Christianity as a political force, as seen in the last Bush election," Branch said. "That is an inspiration for the antievolutionists." NCSE is a nonprofit organization founded in 1981 to track antievolution efforts at the federal, state, and local levels across the US. The California-based organization serves as an information clearinghouse for scientists, teachers, politicians, and others trying to keep creationism and, more recently, intelligent design out of the science classroom.

Movie controversy

While most recent antievolution efforts have occurred in school districts and state legislatures, an unusual and high-profile controversy was triggered in the halls of the bastion of science, the Smithsonian Institution, with the planned showing in late June of the movie *The Privileged Planet: The Search for Purpose in the Universe*. Following proper procedure for hosting an event at a Smithsonian facility, the Discovery Institute gave the Museum of Natural History a \$16 000 donation and, in return, was allowed a private, one-time showing of the movie in the museum's Baird Auditorium. There was also a reception in the Hooker Hall of Geology, Gems and Minerals, home of the Hope Diamond.

When word got out that the well-produced movie, based on a book by two Discovery Institute fellows, was going to show at the Smithsonian, the scientific community voiced great concern. In mid-June, just days before the scheduled screening, top officials from seven major science organizations, including the American Physical Society and the American Institute of Physics, sent a letter to the Smithsonian's board of directors that said, in part:

"We urge you to preserve the Smithsonian Institution's prestigious scientific reputation by not allowing

the film to be shown. . . . The Discovery Institute, a religiously-based advocacy organization, attempts to persuade the public that Intelligent Design is a legitimate scientific theory. It is not. Intelligent Design is a variation of the religious belief of creationism."

The letter said that the film "blurs the distinction between well-accepted, peer-reviewed, testable science and ideologically-based, untestable assertions." The Discovery Institute was using the screening of the movie at the Smithsonian to "try for scientific credibility for Intelligent Design," the letter continued. "Once the Smithsonian's good name is linked with the Discovery Institute, it is unlikely that disclaimers and explanations will prevent the proponents of Intelligent Design from misusing it. The Smithsonian should refuse to allow this film to be shown in the museum."

Museum officials found themselves caught in the middle of the evolution wars. The museum's special-events staff first reviewed the Discovery Institute film several weeks before the controversy erupted and found that it did not overtly violate the Smithsonian's prohibitions against events that are religious, political, or commercial, said Randall Kremer, director of public affairs for the museum. Indeed, the film, as with most intelligent-design material, never directly mentions God, creationism, or the Bible.

When museum director Cristián Samper and other senior museum officials learned about the controversy surrounding the film some seven weeks later, they reviewed the film again and "we immediately recognized the difficulty of it being shown," Kremer said. While the "science is sound" in the film, he said, "it leads to conclusions that are philosophical, not scientific."

Smithsonian disclaimer

But the Discovery Institute had long since mailed out invitations and made arrangements for the event, Kremer said, so the museum took a middle ground. Of the \$16 000 donation, \$11 000 was returned (\$5000 was being held until the museum's costs for the event were determined) and the museum issued a disclaimer stating, "Upon further review we have determined that the content of the film is not consistent with the mission of

the Smithsonian Institution's scientific research. Neither the Smithsonian Institution nor the National Museum of Natural History supports or endorses the views of the Discovery Institute or the film."

Kremer said the events staff people who originally screened the film "vetted it in the narrow terms of avoiding things that are political, commercial, or religious and, based on those grounds, there wasn't a basis for turning [the Discovery Institute] down." The second review, by the museum director, was on the broader and more basic criterion that "anything that occurs in the museum has to enhance the mission of the Smithsonian," Kremer said. "In the future we will use the broader criteria."

The screening itself was attended by about 200 people and concluded with a question-and-answer session between the audience and the two Discovery Institute fellows who are featured in the film, Iowa State University astronomer Guillermo Gonzalez and Jay Richards, an institute vice president with a PhD in philosophy. "I was very happy about how it turned out," said Gonzalez. "We had to limit the audience to a size the hall of gems could handle for the reception. There was enthusiastic applause."

Gonzalez is unusual in that he is a working scientist who has allied himself with an organization that most major science societies hold in low regard. Asked about the reaction among

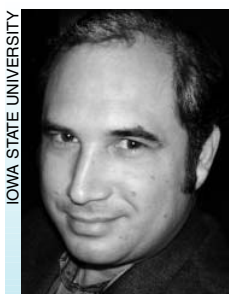
his colleagues to his work on the film and the book that preceded it, he said, "They've been pretty silent. One of them said he is a skeptic, but that he liked the film. He didn't agree with everything in it, but he liked it."

Gonzalez says in the film that his viewing of a total eclipse of the Sun prompted a search that led him to conclude that "the universe is designed not only for life, but also for scientific discovery." Gonzalez said he was "surprised by the reaction of the science organizations, especially the AGU [American Geophysical Union]. Some of the comments were over the top, overheated rhetoric."

AGU officials not only signed the general letter asking the Smithsonian not to show the film, but issued a separate statement saying, "The film fosters the idea that science should include the supernatural. This is unacceptable. AGU's position is clear, creationism is not science."

Ordinary scientist

What he is doing isn't creationism, Gonzalez insisted. "Linking intelligent design to creationism is a political statement. I'm an ordinary scientist who has come up with these ideas [of intelligent design]. I'm looking for evidence of purpose in the universe. I agree that that is controversial, but we didn't start out with the assumption of design. We looked at the evidence in nature. Our evidence of design doesn't start with the Bible."



Gonzalez

In Tulsa, the zoo's board first voted to include a creationist display in answer to the complaint about the elephant-headed Hindu god and another display creationists considered religious, then reversed itself. The Georgia warning-sticker case will be resolved by a federal court ruling within the next several months. In Kansas, science is "still under siege," according to the NCSE. The final form of the proposed science standards scheduled for a vote in September remains unclear.

Then there is the legislation introduced in the South Carolina legislature that is based on antievolution language that originally was part of the No Child Left Behind bill. The antievolution language was eventually stripped from the federal bill. The South Carolina bill, whose author wants students to be taught "more than Charles Darwin's theories of evolution," will top the agenda when the legislature reconvenes in January.

In Pennsylvania, a house subcommittee on basic education just concluded hearings on a bill that would allow school boards to include intelligent design in their K-12 science curriculum. The hearing was held as lawyers prepared for a trial over an order by the Dover Area School District in Pennsylvania that intelligent design be taught in biology classes as an alternative to evolution. Eleven parents challenged the order and the trial is set for September.

As NCSE's Branch noted, it has been a very busy year in the evolution wars, and indications are that the battles will heat up even more in the coming months.

Jim Dawson

GE Makes High-Profile Pledge to Green Up

From fluorescent light bulbs to power stations, General Electric is betting on profits from energy-efficient and environmentally friendly products.

Green is green—good for the environment and good for the bottom line. That's how General Electric CEO Jeff Immelt describes "ecomagination," an initiative launched by the company this spring.

In going green, GE joins a growing trend in industry. At the 2000 World Economic Forum in Davos, Switzerland, for example, business leaders ranked global warming as the most pressing issue of the new century. "GE may not be the first, but they are certainly the 800-pound gorilla in this in terms of what they can do," says Bernie Bulkin, former chief scientist at the BP energy company and a member of a group that advises the UK

government on sustainable development issues.

Ecological imagination

GE's new initiative includes a pledge to more than double the company's investment in environmentally friendly products and energy efficiency from \$700 million to \$1.5 billion a year by 2010, a hike from 25% to 35% of total R&D spending. GE also says it will double annual profits from such products to \$20 billion by 2010 and cut its own greenhouse gas emissions by 1% by 2012. Based on projected growth, the company estimates that without countermeasures its emissions would grow by 40% in that time. Headquar-

tered in Fairfield, Connecticut, GE creates about a third of the world's electricity and is one of the world's largest publicly traded companies.

"An absolute reduction [in greenhouse gas emissions] by GE is a good step," says MIT's Ernest Moniz, former US Department of Energy undersecretary. "You'd hope that 1% will be followed by 20% in 2020, but you have to be realistic." And the reality, he says, "is that the ship is too big to turn. Speaking globally, the best you can do is level off emissions in the next 20 or 25 years, and then reduce." GE's multipronged plan to cut its emissions includes converting a manufacturing center from coal to gas, using methane from landfills as an energy source, employing the company's own energy-efficient technologies, and trading emission credits.