Physicists Wary of Science-Religion Dialogue

Last week saw a clash of cultures within the American Association for the Advancement of Science (AAAS, publisher of *Science*). At the 20 February meeting of the AAAS council, members of the group's physics section asked the association to review the goals of its program on science and religion.

A number of physicists were troubled because the chief sponsor of the 5-year-old AAAS Dialogue on Science, Ethics, and Religion is the Templeton Foundation, an $800 million philanthropy that promotes the notion that there is a "designer" behind it all (*Science*, 21 May 1999, p. 1257). "We are uncomfortable with the establishment within AAAS of a program with close ties to a religious organization," the physicists wrote to AAAS council officers in December. They also believe that there's been "too much of an interlocking directorate" between Templeton and the AAAS program, says new division chair Eugen Merzbacher, a professor emeritus at the University of North Carolina, Chapel Hill. For example, biologist Francisco Ayala of the University of California, Irvine, and Harvard astronomer Owen Gingerich have served on the advisory committees of both groups.

At the council meeting, AAAS program director Audrey Chapman explained that the Dialogue is teaching the religious community about science and promoting discussion of difficult ethical issues such as cloning. She added that in the future, it is expected that no more than 40% of the program's budget will come from Templeton. And currently there is only one person—Ronald Cole-Turner of Pittsburgh Theological Seminary—who serves on both advisory groups.

Many of the physicists were mollified, saying they are satisfied that the AAAS is responding to their concerns. John Peoples of Fermilab, retiring chair of the section, says he also feels reassured by outgoing AAAS president Stephen J. Gould, who has made it clear that he believes science and religion should keep out of each other's hair.

Chapman says the physicists had no basis for concern. "They had not done us the courtesy of even ever looking at our Web site" before sounding off, she says. "The information they had was very out of date." The Templeton Foundation has "never had any influence on the content or direction of the program."

But at least one physicist remains uncomfortable about the secular association's foray into religious territory. Says former physics section chair Hans Frauenfelder of Los Alamos National Lab in New Mexico: "I'm against any dialogue in AAAS about religion and science."

Time to Don Your Silk

"The scientific debate is not being controlled by Ph.D.s but apparently by young people with a proclivity for street theater. ... It's coming to the point that scientists are going to have to get dressed up as corncobs to get the attention of the media."

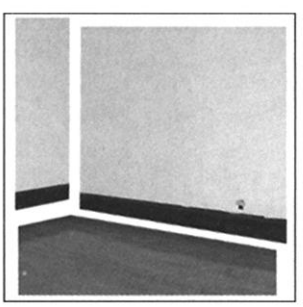
—Senator Christopher "Kit" Bond (R–MO) at a speech on genetically modified foods at last week's AAAS annual meeting.

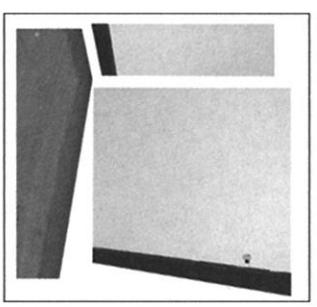
The Brain's Special Places

Is a part of the brain reserved especially for recognizing locations, such as caves and landscapes? Yes, suggests a study presented last month at the AAAS annual meeting.

Scientists already know that there's a special area in the visual cortex for face recognition. Now cognitive scientist Nancy Kanwisher and postdoc Russell Epstein at the Massachusetts Institute of Technology say evolution may have put an equally high value on the ability to recognize places.

Using functional magnetic resonance imaging, the researchers found in several dozen subjects that a small area in the visual cortex, dubbed the parahippocampal place area (PPA), was especially responsive to pictures of rooms or landscapes. The PPA will be activated by the image of an empty room; but it won't light up if all of a room's furnishings are shown without the floors and walls, or if the image of the bare room is fragmented. Kanwisher and postdoc Paul Downing also showed subjects images of other objects for which specialized brain areas might exist, such as predatory animals and food plants. But "none produce anything like the specialized response for faces and spaces," said Kanwisher. The PPA was activated even when subjects were only imagining places, she added.





Place area is activated by image at left but is less responsive when segments no longer look like a room (*right*).

Kanwisher is getting what are "probably the most interesting results in the field," says Harvard psychologist Alfonso Caramazza. But, he cautions, the work "doesn't mean there are not specialized brain responses to other categories"—they just might be circuits rather than focused areas.

Galactic Hat Dance

The spectacular Sombrero galaxy, about 50 million light-years away, is caught in midswirl in this new image from the European Southern Observatory's Very Large Telescope based in Atacama, Chile. Like other spiral galaxies, its center bulges with older stars, which, along with its edge-on tilt, gives it a hatlike appearance. The arms of the spirals are tightly wound, creating the illusion of a solid disk. The large, bright nuclear bulge silhouettes clouds of dark gas and dust, giving astronomers an unusually beautiful view.

CREDITS: (TOP) N. KANWISHER AND R. EPSTEIN; (BOTTOM) ESO