Show Me the Science

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Blue Hill, Me.

PRESIDENT BUSH, announcing this month that he was in favor of teaching about "intelligent design" in the schools, said, "I think that part of education is to expose people to different schools of thought." A couple of weeks later, Senator Bill Frist of Tennessee, the Republican leader, made the same point. Teaching both intelligent design and evolution "doesn't force any particular theory on anyone," Mr. Frist said. "I think in a pluralistic society that is the fairest way to go about education and training people for the future."

Is "intelligent design" a legitimate school of scientific thought? Is there something to it, or have these people been taken in by one of the most ingenious hoaxes in the history of science? Wouldn't such a hoax be impossible? No. Here's how it has been done.

First, imagine how easy it would be for a determined band of naysayers to shake the world's confidence in quantum physics - how weird it is! - or Einsteinian relativity. In spite of a century of instruction and popularization by physicists, few people ever really get their heads around the concepts involved. Most people eventually cobble together a justification for accepting the assurances of the experts: "Well, they pretty much agree with one another, and they claim that it is their understanding of these strange topics that allows them to harness atomic energy, and to make transistors and lasers, which certainly do work."

Fortunately for physicists, there is no powerful motivation...
for such a band of mischief-makers to form. They don't have to spend much time persuading people that quantum physics and Einsteinian relativity really have been established beyond all reasonable doubt.

With evolution, however, it is different. The fundamental scientific idea of evolution by natural selection is not just mind-boggling; natural selection, by executing God's traditional task of designing and creating all creatures great and small, also seems to deny one of the best reasons we have for believing in God. So there is plenty of motivation for resisting the assurances of the biologists. Nobody is immune to wishful thinking. It takes scientific discipline to protect ourselves from our own credulity, but we've also found ingenious ways to fool ourselves and others. Some of the methods used to exploit these urges are easy to analyze; others take a little more unpacking.

A creationist pamphlet sent to me some years ago had an amusing page in it, purporting to be part of a simple questionnaire:

Test Two

Do you know of any building that didn't have a builder? [YES] [NO]

Do you know of any painting that didn't have a painter? [YES] [NO]

Do you know of any car that didn't have a maker? [YES] [NO]

If you answered YES for any of the above, give details:

Take that, you Darwinians! The presumed embarrassment of the test-taker when faced with this task perfectly expresses the incredulity many people feel when they confront Darwin's great idea. It seems obvious, doesn't it, that there couldn't be any designs without designers, any such creations without a creator.

Well, yes - until you look at what contemporary biology has demonstrated beyond all reasonable doubt: that natural selection - the process in which reproducing entities must compete for finite resources and thereby engage in a tournament of blind trial and error from which improvements automatically emerge - has the power to generate breathtakingly ingenious designs.

Take the development of the eye, which has been one of the favorite challenges of creationists. How on earth, they ask, could that engineering marvel be produced by a series of small, unplanned steps? Only an intelligent designer could have created such a brilliant arrangement of a shape-shifting lens, an aperture-adjusting iris, a light-sensitive
image surface of exquisite sensitivity, all housed in a sphere that can shift its aim in a hundredth of a second and send megabytes of information to the visual cortex every second for years on end.

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