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Intelligent Design on Trial

“SCIENCE: A systematic form of inquiry based on observation, prediction, reasoning, and testing, that seeks to explain how the natural universe works. Science operates by means of the scientific method – the formulation of hypothesis that are consistent with observed phenomena and the subsequent testing of these hypotheses to determine their validity. Scientific knowledge is constantly refined or altered by new evidence; if a hypothesis is not supported by experimentation or observation, scientists reject it and formulate a new hypothesis that is tested against the observed data. Science involves reasoning about the natural world. It does *not* involve supernatural explanations of the physical universe. Authentic scientific inquiry is based on the things that can be studied and tested.”

- NOVA Teacher’s Guide (www.pbs.org/nova/id)

Judgment Day: Intelligent Design on Trial

HARRISBURG, Pa. - In one of the biggest courtroom clashes between faith and evolution since the 1925 Scopes Monkey Trial, a federal judge barred a Pennsylvania public school district Tuesday from teaching “intelligent design” in biology class, saying the concept is creationism in disguise.

U.S. District Judge John E. Jones delivered a stinging attack on the Dover Area School Board, saying its first-in-the-nation decision in October 2004 to insert intelligent design into the science curriculum violates the constitutional separation of church and state.

The ruling was a major setback to the intelligent design movement, which is also waging battles in Georgia and Kansas. Intelligent design holds that living organisms are so complex that they must have been created by some kind of higher force.

Jones decried the “breathtaking inanity” of the Dover policy and accused several board members of lying to conceal their true motive, which he said was to promote religion. A six-week trial over the issue yielded “overwhelming evidence” establishing that intelligent design “is a religious view, a mere re-labeling of creationism, and not a scientific theory,” said Jones, a Republican and a churchgoer appointed to the federal bench three years ago.

The school system said it will probably not appeal the ruling, because the members who backed intelligent design were ousted in November’s elections and replaced with a new slate opposed to the policy.

During the trial, the board argued that it was trying improve science education by exposing students to alternatives to Charles Darwin’s theory of evolution and natural selection.

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The policy required students to hear a statement about intelligent design before ninth-grade lessons on evolution. The statement said Darwin's theory is "not a fact" and has inexplicable "gaps." It referred students to an intelligent-design textbook, "Of Pandas and People."

But the judge said: "We find that the secular purposes claimed by the board amount to a pretext for the board's real purpose, which was to promote religion in the public school classroom."

The disclaimer, he said, "singles out the theory of evolution for special treatment, misrepresents its status in the scientific community, causes students to doubt its validity without scientific justification, presents students with a religious alternative masquerading as a scientific theory, directs them to consult a creationist text as though it were a science resource and instructs students to forgo scientific inquiry in the public school classroom and instead to seek out religious instruction elsewhere."

In 1987, the U.S. Supreme Court ruled that states cannot require public schools to balance evolution lessons by teaching creationism.

<http://www.msnbc.msn.com/id/10545387/>

Statement the School Board Wanted Read to Biology Students:

The Pennsylvania Academic Standards require students to learn about Darwin's Theory of Evolution and eventually to take a standardized test of which evolution is a part.

Because Darwin's Theory is a theory, it continues to be tested as new evidence is discovered. The Theory is not a fact. Gaps in the Theory exist for which there is no evidence. A theory is defined as a well-tested explanation that unifies a broad range of observations.

Intelligent Design is an explanation of the origin of life that differs from Darwin's view. The reference book, *Of Pandas and People*, is available for students who might be interested in gaining an understanding of what Intelligent Design actually involves.

With respect to any theory, students are encouraged to keep an open mind. The school leaves the discussion of the Origins of Life to individual students and their families. As a Standards-driven district, class instruction focuses upon preparing students to achieve proficiency on Standards-based assessments.



Alan Bonsell (left), a local businessman, and Bill Buckingham(right), a retired police officer, were two members of the Dover school board who advocated bringing intelligent design into the science classroom.

Definitions

“**Facts** are repeatedly confirmed observations, **laws** describe aspects of the natural world (but do not explain them), **hypotheses** are testable statements, and **theories** use multiple lines of evidence to explain aspects of the natural world.”

- NOVA Teacher’s Guide

Definitions*

The terms *fact*, *law*, *hypothesis*, and *theory* are used frequently and sometimes interchangeably in day-to-day conversations. But for scientists, they have very specific meanings. The following definitions were developed by members of the National Academy of Sciences:

fact: In science, an observation that has been repeatedly confirmed.

law: A descriptive generalization about how some aspect of the natural world behaves under stated circumstances.

hypothesis: A testable statement about the natural world that can be used to build more complex inferences and explanations.

theory: In science, a well-substantiated explanation of some aspect of the natural world that can incorporate facts, laws, inferences, and tested hypotheses. In science, a theory is often the end product of decades or centuries of scientific research that incorporates numerous observations about the scientific phenomenon it is trying to explain. A theory represents the best present explanation for a scientific phenomenon.

evolution: Biological evolution is descent with modification. It includes both small-scale evolution (the cumulative changes that occur in a population over time) and large-scale evolution (the descent of different species from a common ancestor over many generations). Evolution is a scientific theory, supported by a great deal of evidence, facts, inferences, and tested hypotheses.

intelligent design: The idea that certain features of the universe and life are too complex to have arisen by natural causes and instead are best explained as being the product of an intelligent designer.

mutation: A permanent change in the DNA sequence of a gene. Most mutations are harmless, though some can be harmful. Occasionally, a mutation can increase an organism’s chance of survival.

natural selection: A process in which genetically-based characteristics allow some individuals to survive, giving them a reproductive advantage in their local environments. These characteristics tend to increase in frequency in the population over time while those that are disadvantageous decrease in frequency.

*Taken from the teachers guide available at:
http://www.pbs.org/wgbh/nova/teachers/activities/pdf/3416_id.pdf.

Transcript of Judge's Response

ID is not science

After a searching review of the record and applicable case law, we find that while intelligent design arguments may be true, a proposition on which the Court takes no position, intelligent design is not science. We find that intelligent design fails on three different levels, any one of which is sufficient to preclude a determination that intelligent design is science. They are: (1) intelligent design violates the centuries-old ground rules of science by invoking and permitting supernatural causation; (2) the argument of irreducible complexity, central to intelligent design, employs the same flawed and illogical contrived dualism that doomed creation science in the 1980s; and (3) intelligent design's negative attacks on evolution have been refuted by the scientific community. It is additionally important to note that intelligent design has failed to gain acceptance in the scientific community, it has not generated peer-reviewed publications, nor has it been the subject of testing and research.

ID is the progeny of creationism

The evidence at trial demonstrates that intelligent design is nothing less than the progeny of creationism. What is likely the strongest evidence supporting the finding of intelligent design's creationist nature is the history and historical pedigree of the book to which students in Dover's ninth-grade biology class are referred, *Of Pandas and People*. *Pandas* is published by an organization called FTE, as noted, whose articles of incorporation and filings with the Internal Revenue Service describe it as a religious, Christian organization. *Pandas* was written by Dean Kenyon and Percival Davis, both acknowledged creationists, and Nancy Pearcey, a Young Earth Creationist, contributed to the work.

Evolutionary theory is not antithetical to religion

Both Defendants and many of the leading proponents of intelligent design make a bedrock assumption which is utterly false. Their presupposition is that evolutionary theory is antithetical to a belief in the existence of a supreme being and to religion in general. Repeatedly in this trial, Plaintiffs' scientific experts testified that the theory of evolution represents good science, is overwhelmingly accepted by the scientific community, and that it in no way conflicts with, nor does it deny, the existence of a divine creator.

The disclaimer Dover wanted read to students is flawed

The disclaimer written by the Dover School Board singles out the theory of evolution for special treatment, misrepresents its status in the scientific community, causes students to doubt its validity without scientific justification, presents students with a religious alternative masquerading as a scientific theory, directs them to consult a creationist text as though it were a science resource, and instructs students to forego scientific inquiry in the public school classroom and instead to seek out religious instruction elsewhere.

The goal of the ID movement is to foment a revolution

Intelligent design, as noted, is grounded in theology, not science. Accepting for the sake of argument its proponents' as well as Defendants' argument that to introduce intelligent design to students will encourage critical thinking, it still has utterly no place in a science curriculum. Moreover, intelligent design's backers have sought to avoid the scientific scrutiny which we have now determined that it cannot withstand by advocating that the controversy, but not intelligent design itself, should be taught in science class. This tactic is at best disingenuous, and at worst a canard. The goal of the intelligent-design movement is not to encourage critical thought but to foment a revolution which would supplant evolutionary theory with intelligent design.

It is unconstitutional to teach ID as an alternative to evolution

We do not question that many of the leading advocates of intelligent design have bona fide and deeply held beliefs which drive their scholarly endeavors. Nor do we controvert that intelligent design should continue to be studied, debated, and discussed. As stated, our conclusion today is that it is unconstitutional to teach intelligent design as an alternative to evolution in a public school science classroom.

Additional Reading & Other Resources

Links:

- **NOVA Special** – the official website
(<http://www.pbs.org/wgbh/nova/id/>)
- **Evolution** – a PBS special on evolution
(<http://www.pbs.org/evolution/>)
- **Intelligent Design** – Natural History Magazine presents brief position statements by three leading proponents of intelligent design, along with three responses from proponents of evolution, as well as an overview of the ID movement.
(<http://www.naturalhistorymag.com/darwinanddesign.html>)
- **Intelligent Design Network** – Features press releases, information about events, publications, and more related to the intelligent design movement.
(<http://www.intelligentdesignnetwork.org>)
- **Judge Rules Against Intelligent Design** – article about the case, partially quoted on page 1
(<http://www.msnbc.msn.com/id/10545387/>)