

State-Sponsored Teaching of Intelligent Design

Early in 2005, controversy broke out when Dover High School's board voted to make their biology class the first in America to discuss Intelligent Design (ID) alongside evolution. ID theory states that "complex biological structures were designed by intelligent beings and were not created by chance" (Webster's). Regarded by mainstream scientists as scientifically invalid, it enjoys a disproportionate level of support in the general population of the United States because of its compatibility with Christian theology. The First Amendment states that "Congress shall make no law respecting an establishment of religion" (Constitution). Although the Amendment does not specifically mention creationism, decisions made by the Supreme Court of the United States (SCOTUS) are considered as binding as the Constitution itself, and various rulings by SCOTUS have made it clear that the teaching of creationism in public schools is legally prohibited. Since ID has a clear religious agenda and is widely regarded as unscientific, its inclusion in a public high school biology class is unconstitutional.

In 1879, SCOTUS ruled that the separation of church and state was "almost an authoritative declaration of the scope and effect of the [First] Amendment" (FindLaw), making this concept constitutionally binding. In its ruling in a landmark 1968 case, *Epperson v. Arkansas*, SCOTUS stated that the government must be neutral in matters of religion and "may not aid, foster, or promote one religion or religious theory against another or even against the militant opposite" (Epperson).

In 1971, the court ruled against state funding of religious schools in *Lemon v. Kurtzman*, and established the 'Lemon test' to assess the legitimacy of government activity pertaining to religion. According to the Lemon test, government action must have a bona fide secular purpose, it must not advance nor inhibit religion, and it must not

excessively “tangle” religion and government (Haynes).

This test was applied in 1987 to strike down a Louisiana state ruling that creationism must be taught alongside evolution in public schools (Edwards). It was used again when, in 1994, the US Court of Appeals struck down a school board's decision requiring biology teachers to inform students that evolution is “not intended to influence or dissuade the Biblical version of Creation” (ADL). Again, in 2005, a District Court in Georgia applied the test and ruled that stickers placed on biology textbooks containing similar words conveyed “a message of endorsement of religion” (Hart).

ID theory has gained popularity and attention in the last decade largely because of creationist reaction to these court decisions and the removal of creationism from the science classroom. Faced with legal hurdles, many creationists adjusted the rhetoric of their theological assertions to try to circumvent the legal problems associated with the teaching of religious doctrine in public schools. By avoiding the mention of God or the Christian story of creation, many creationists hope to allow ID into the science classroom, thereby advancing the creationist cause.

In 1996, a right-wing think tank called the Center for Science and Culture (CSC) was established. A fundraising document known as “The Wedge Strategy,” written sometime between 1996 and 1998 by the CSC, was leaked to the Internet, and verified by Professor Barbara Forrest in her 2000 book *Creationism's Trojan Horse*. The document lays bare the CSC's intention to promote a science “consonant with Christian and theistic convictions” (Forrest). It outlines a long-term strategy for achieving a religiously motivated goal to eventually overthrow materialism in scientific theory through the dissemination of ID theory (Young 3). From its beginnings, the concept of ID has largely emerged not as a study of scientific evidence which led to a theory, but as a theological idea that those with religious convictions have tried to justify using science. This is completely contrary to scientific method.

In Dover, biology teachers were required to read to their students a statement explaining that the reference book *Of Pandas and People* should be used to gain an understanding of Intelligent Design (Banerjee). This book refers to ID as a viable alternate theory to evolution, but the majority of scientific literature does not support this. In a search of five respected computerized academic indices, there are several thousand papers on evolution, but only thirty-seven containing the words "Intelligent Design," none of which contains scientific research based upon ID (Gilchrist). In order for a scientific theory to be valid, it must be able to be demonstrated experimentally. To claim that ID theory is valid before this has been accomplished (indeed, before any valid experiments have been formulated) is unscientific.

There are many scientific rebuttals to the concepts of ID. One of the fundamentals of ID is that there are some structures in nature, such as the eubacterial flagellum, which are irreducibly complex. This was most famously claimed by scientists Michael Behe in 1996 and William Dembski in 2002 (Young 72). However, mainstream scientists, such as Kenneth Miller, David Ussery, and Ian Musgrave, have debunked the idea of irreducible complexity, pointing to flaws in Behe and Dembski's categorization of flagella and a misunderstanding of the flagella's original purpose (Young 74). It seems likely that Behe and Dembski's claims would never have come about or been publicized if they did not support ID theory and hence the beliefs of creationists.

ID proponents often argue that evolution is just a theory and that alternate theories should be discussed in the classroom. This idea is popular among many Americans because it reflects their own beliefs; Gallup polls have shown that nearly half of all Americans believe in a literal interpretation of creationism (Robinson). A 2004 CBS News Poll showed that nearly two-thirds of Americans favor teaching creationism alongside evolution in schools (Banerjee).

The popularity of this idea is also related to a fundamental misunderstanding of

the definition of “theory” in a scientific context. While, to a layman, “theory” can mean simply “conjecture,” a scientific theory is a well-substantiated explanation which has been formulated and verified through the study of facts and evidence. For instance, although it is generally accepted as fact that living matter is made up of cells, technically this idea is referred to as “cell theory.” There is an overwhelming body of evidence and information which supports evolutionary theory; this explains why at least ninety-five percent of scientists disagree with a literal interpretation of creationism (Robinson). However, many who do not understand the weight of the scientific term “theory” assume incorrectly that a theory is based on conjecture and that there is no concrete evidence to support it.

Science does not and should not reflect public misconception or belief. To include ID alongside evolution because of the population's religious beliefs makes no sense scientifically. If, as many ID proponents claim, ID theory should be included to make scientific education more comprehensive, why shouldn't other non-mainstream theories of origin be included? Erich von Daniken's book *Chariot of the Gods* captured public attention in the 1960's with its claims, backed by anthropological studies, that the human race was genetically seeded by extraterrestrials. His theory has also been discredited and has gained no foothold in the mainstream scientific community, yet there are many who subscribe to it. It would make as much sense to include alien seeding in the interest of scientific education as it would to include ID. As SCOTUS said in its *Aguillard v. Edwards* ruling, “If the Louisiana Legislature's purpose was solely to maximize the comprehensiveness and effectiveness of science instruction, it would have encouraged the teaching of all scientific theories about the origins of humankind” (Edwards).

A Pennsylvanian pastor said of the Dover High School controversy that “everyone in the country seems to have freedom of speech but those who talk about religion” (Banerjee). The pastor fails to understand that this is not a matter of free speech. The government is charged by constitutional law to maintain the separation of church and

state; allowing religious doctrine to be taught as fact in government-run schools is a clear violation of this. As a leader of a church, the pastor should be aware that it is his duty and right, and not government schools', to talk about religion and God. In its ruling on *Lemon v. Kurtzman*, SCOTUS stated that "religion must be a private matter for the individual, the family, and the institutions of private choice, and that while some involvement and entanglement are inevitable, lines must be drawn" (Hudson). The line has been clearly drawn between freedom of speech and the establishment clause: the pastor is free to talk about religion and God to his congregation, but he is not free to insist upon its inclusion in public school curricula.

The Dover controversy caused a legal suit to be launched against the school which will decide for certain the legality of the board's decision. When applying the Lemon test, it appears that ID theory does not have a bona fide secular purpose, and it advances the position of religious creationists who wish to inject their beliefs into the science curriculum. The teaching of ID in public schools amounts to government endorsement of ID as science. This issue must fail the Lemon test, and the Dover High School board's decision should be struck down by the courts.

The First Amendment establishes that a country of religious people need not be governed religiously. It does not suppress religion, but gives it a separate voice from the government. Those who believe in ID theory are free to disseminate their ideas through any source other than government schools. As one student from Dover High School commented, "There's Bible Club in school for this, and that's where it should be taught" (Banerjee). Mandating the teaching of ID theory in biology class not only underestimates the ability of believers to distinguish between scientific facts and matters of personal faith, it is illegal according to the Constitution.

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