

SCIENCE,
RELIGION
AND
PUBLIC
EDUCATION
AN
EVOLVING
CONTROVERSY



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A well-organized and well-funded campaign is under way to undermine the separation of church and state in America's public schools. Aggressive religious pressure groups are pushing school boards nationwide to change the curriculum to conform to their doctrines. Battles have erupted all over the nation, and your community may be next.

Advocates of "creationism," "creation-science" and "intelligent design" are among the most active in this area. Backed by national Religious Right organizations, proponents of these ideas seek to drive evolution from the science classroom and replace it with their interpretation of the Bible. If they succeed, church-state separation and sound science education may be irreparably harmed.

round the country, disputes have arisen over the teaching of creationism, or its closely aligned cousin, "intelligent design" (ID), in public schools. Aggressive Religious Right activists are working feverishly to undercut the teaching of evolution by insisting that students be exposed to "both theories."

This approach threatens the separation of church and state and sound science education. Creationism and its variants are religious doctrines, not science. While some religious believers accept the validity of these ideas, many others do not. In addition, the scientific community is in overwhelming agreement that creationism and its more modern variants are not legitimate science.

In its traditional form, creationism is a literal reading of the Book of Genesis repackaged as science. It makes several claims that clash with modern scientific understanding. For example, supporters of this viewpoint contend that the Earth is only a few thousand years old and that humans lived alongside dinosaurs.

Other advocates of creationism concede that the Earth is ancient and admit that evolution may operate in a limited capacity or on lower forms of life. Yet they reject the idea that humans evolved because, they say, people are the products of a special creation by God.

Tellingly, when trying to reconcile disputes over issues such as the age of Earth and the evolution of lower life forms, advocates of creationism turn to the Bible to buttress their arguments, not the scientific laboratory. In fact, virtually all of the groups in America promoting creationism are incorporated as religious ministries. Leaders of these organizations are often fundamentalist clergy who speak openly of their desire to cast doubt on

evolution and win new converts to their faith. This is not in any way a true scientific movement.

On the surface, intelligent design appears to be something different. ID advocates claim that they have uncovered scientific evidence that an intelligent force, i.e. God, created humankind and the universe. The concept sidesteps some of the more far-fetched claims of traditional creationists and does not address issues such as the age of the Earth.

But just below ID's surface lurk many of the same discredited anti-evolution arguments that have been promoted by creationists for years. It seems obvious that ID is a form of "creationism lite," deliberately created by fundamentalists to get a foot in the door of the public school science classroom.

A Long-Running Battle

Fundamentalists have opposed the theory of evolution since Charles Darwin conceived it. This issue has been prominent in many states lately because Religious Right activists are gaining political power. They are pressuring state and local school boards to water down or remove evolution from the curriculum.

This fight has deep roots in America. At the turn of the 20th century, some states had religiously motivated laws banning the teaching of evolution in public schools. In 1925, Tennessee teacher John Scopes was convicted of violating a state statute barring instruction about evolution. (His conviction was later overturned on a technicality.)

Many people believe that the creationists were humiliated by the Scopes trial and went into a period



of withdrawal after it was over. In fact, fundamentalists simply shifted tactics and assumed a lower profile but continued their crusade. They began pressuring textbook publishers to water down material about evolution in science textbooks, and many did so.

The launch of the Sputnik satellite by the Soviet Union in October of 1957 seriously rattled the American scientific community. There were numerous calls for better science education in public schools. In response, science instruction was beefed up in many schools, and biology classes were improved. Evolution was reintroduced in many areas, but a problem remained: Many states still had anti-evolution statutes on the books.

In 1968, the U.S. Supreme Court invalidated an Arkansas law that banned public school instruction about evolution (*Epperson v. Arkansas*). Undaunted, creationists began pressing legislatures to pass laws mandating “balanced treatment” between evolution and “creation-science.” The Supreme Court struck down a Louisiana law like this in 1987 (*Edwards v. Aguillard*), holding that it was obviously religiously motivated.

Creationists continued to regroup. Throughout the 1980s and ’90s they repackaged their ideas under several different names, among them “evidence against evolution” and “the theory of abrupt appearance.”

But these efforts were also non-starters. Contemporary anti-evolutionists did not really begin to gain traction until the formation of the Discovery Institute, an outfit based in Washington state that promotes intelligent design.

Creationism In The 21st Century

One of the most visible threats to the teaching of evolution is intelligent design. At first glance, ID appears to have some key differences from standard creationism. It strips away some of the more implausible claims of traditional creationism and professes a secular approach.

Yet a closer look shows that ID remains a religious concept. The “designer” whom Religious Right proponents herald could only be God. They have offered no

A closer look shows that intelligent design remains a religious concept. The “designer” whom ID proponents herald could only be God. They have offered no other plausible candidates. (Some ID boosters have actually suggested that a space alien could be the designer – an assertion that can hardly be taken seriously by science. It also begs the question: Who “designed” the space creature?)

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ID proponents have conducted a slick public relations campaign aimed at local schools. They often bypass state officials and apply strong-arm tactics directly to local school boards. Board members, who in most parts of the country are democratically elected, can be subject to considerable community pressure. Thus, ID proponents are primarily waging a political, not scientific, battle.

In fact, ID backers’ attempts to publish peer-reviewed research have failed. While they have published many books, these works have been subjected to great criticism in the scientific community.

Some ID advocates are forthright about their religious agenda when speaking to sympathetic audiences. Phillip Johnson, considered a founding guru of the movement, told a religious gathering in 1999 that he uses ID to convince people of the truth of the Bible and talk to them about “the question of sin.” From there, Johnson said, people are “introduced to Jesus.” Jonathan Wells, another prominent ID proponent, says he was persuaded to criticize evolution after becoming a member of the Rev. Sun Myung Moon’s Unification Church.

In December 2005, a federal district court in Pennsyl-

vania ruled against ID promotion in Dover public schools. The *Kitzmiller v. Dover Area School District* decision sends a clear message that intelligent design is constitutionally unacceptable in science classes.

Proposing ID as an “alternative” to evolution is not the only tactic being used to push evolution out of schools. Opponents also use disclaimers, either printed inside a textbook or read aloud by a teacher or school administrator, as another way to undermine the scientific validity of evolution. This kind of effort has the same goal as the ID movement – to cast doubt on the theory of evolution – but doesn’t usually put forth any specific alternative, scientific or otherwise.

It’s worth pointing out that ID and other forms of creationism are grounded only in *certain varieties* of religion. Most major denominations made their peace with evolution long ago because the scientific evidence for it is so compelling. Today, only militantly fundamentalist groups tend to oppose evolution.

Thus, efforts to claim that evolution is somehow hostile to religion are easily disproved, as are claims that evolution promotes a “godless” universe. In fact, evolution says nothing about the origin of the universe or the meaning of life. It merely addresses the non-controversial idea that living things have the ability to change over time.

Nor is evolution incompatible with conservative theology. Pope John Paul II was hardly considered a theological liberal. Yet on at least two occasions John Paul stated that there need be no conflict between religion and science on this matter. The Bible, the pope said, “does not wish to teach how heaven was made but how one goes to heaven.” In October of 1997, John Paul issued a statement asserting that “fresh knowledge leads to recognition of the theory of evolution as more than just a hypothesis.”

What Is At Stake

Why is this issue important? At its core, creationism undermines the wall of separation between church and state. Parents are free to teach their children religious concepts at home and in houses of worship. That is not enough for the creationists. They want to expose *all* children to those concepts in public school science classes. They want to use a captive audience to spread their theo-

gy. This they cannot legally do. Public schools, the Supreme Court has repeatedly said, are not allowed to promote religion.

Furthermore, creationism and ID threaten good science education in America. The core findings of evolutionary theory are no longer questioned by the scientific community. Evolution is taught without controversy in secular universities all over the nation. Failing to teach it in high school does a disservice to our students and leaves them ill-prepared for higher education.

Resistance to standard science instruction could cause our country to fall behind other nations. Religious opposition to evolution is practically nonexistent in Western Europe, Japan, Canada and Australia. As a result, the United States’ position as the leader in cutting-edge biotechnology is now in jeopardy. Our country will not continue to lead in this area if our students are not adequately educated about modern science.

In light of this, claims that schools should teach both evolution and some form of creationism and let young people decide are unpersuasive. There is no longer a controversy in the scientific community about the validity of evolution. Pretending that there is only does a disservice to our students. We cannot substitute theology for science in our classrooms and expect to remain the world leader in increasingly important scientific fields.

Because so many different religions and cultures have different beliefs about origins, public schools must take care not to elevate any one understanding over others. For this reason, intelligent design and other forms of creationism must be kept out of our science classrooms.

For more information on this or other church-state issues, contact Americans United for Separation of Church and State at our national headquarters in Washington, D.C., (see address on the back) or online at www.au.org. Americans United has a wide range of books, fact sheets and other literature about church-state separation. We welcome your comments and support.

