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# The Social and Legal Dimensions of the Evolution Debate in the U.S.

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# The Social and Legal Dimensions of the Evolution Debate in the U.S.

As with many social and political controversies in the United States, the battle over evolution has been largely fought in courtrooms. This has been particularly true in the last 50 years, as courts have been repeatedly asked to rule on efforts to restrict or change the way public schools teach about evolution and life's origins.

Ironically, when Charles Darwin's evolutionary theory was first made public in the United States almost 150 years ago, it did not roil the country's religious and scientific establishments as it did in Britain at the time. Indeed, while the 1859 publication of *On the Origin of Species by Means of Natural Selection* generated debate among American scientists and thinkers, it was largely ignored by the nation's wider society, due, at least in part, to the country's preoccupation with the Civil War, slavery and, later, Reconstruction.

Still, by the 1870s, American religious leaders and thinkers began considering the theological implications of Darwin's theory, and many started attacking evolutionary thinking. For example, Presbyterian theologian Charles Hodge, in his book *What Is Darwinism?* (1874), argued that natural selection was unacceptable because it directly contradicted belief in a benevolent and all-powerful God. Other theologians, however, such as famed Congregationalist minister Henry Ward Beecher, tried to forge a rapprochement between evolutionary thinking and Christianity, arguing that evolution was simply God's method of creation.

But these early debates over faith and evolution, while important, were largely confined to intellectual circles. The issue did not filter down to the wider American public until the end of the 19th century, when a large number of popular Christian authors and speakers, including the famed Chicago evangelist and missionary Dwight L. Moody, began to inveigh against Darwinism as a threat to biblical truth and public morality.

The arrival of Darwinian thinking into the wider American consciousness coincided with other dramatic shifts taking place in the country's religious landscape. From the 1890s to the 1930s, the major American Protestant denominations – which, in spite of growing doctrinal differences, had generally maintained unity on basic issues of faith – gradually split into two camps: modernist, or theologically liberal Protestantism; and evangelical, or otherwise theologically conservative, Protestantism.

The American Protestant schism was caused by a number of important developments taking place at the time, including the advent of new scientific thinking, new questions about the historical accuracy of biblical accounts and a host of provocative and controversial new ideas about both the individual and society associated with such thinkers as Sigmund Freud and Karl Marx. Modernist Protestants sought to integrate these new theories and ideas into their religious doctrine, while more conservative Protestants and others resisted these developments.

By the early 1920s, evolution had become one of the most, if not the most, important wedge issues in this Protestant divide, in part because the debate had taken on a pedagogical dimension, with students throughout the nation now studying Darwin's ideas in biology classes. Not surprisingly, the issue became a mainstay for Protestant evangelists, including Billy Sunday, the most popular preacher of his era. "I don't believe the old bastard theory of evolution," he exclaimed during a 1925 revival meeting in Memphis, Tenn. "I believe I am just as God Almighty made me," he said. But it was William Jennings Bryan, a man of politics, not the cloth, who ultimately became the leader of a full-fledged national crusade against evolution.

Bryan, a populist orator and devout evangelical Protestant who had thrice run unsuccessfully for president, believed that the presence of Darwin in the nation's classrooms would result in the moral destruction of American youth. He argued that the teaching of evolution would ensure that whole generations would grow up believing that the Bible was no more than "a collection of myths," undermining the nation's Christian faith and replacing a religion of love and peace with the doctrine of survival of the fittest.

Bryan's fear of social Darwinism was not entirely unfounded. Evolutionary thinking had helped to give birth to the eugenics movement, which maintained that one could breed a better person in the same way that farmers bred better sheep and cattle. Eugenics led to now-discredited theories of race and class superiority that helped drive the debate over immigration in the U.S. and led some American states to enact sterilization laws to stop "mental deficient" from having children.

Most who favored the teaching of evolution in public schools were not supporters of eugenics but simply wanted students to be exposed to the most up-to-date scientific thinking. For others, like supporters of the newly formed American Civil Liberties Union, teaching evolution was an issue of freedom of speech as well as a matter of maintaining the separation of church and state. Still others, like famed lawyer Clarence Darrow, saw the battle over evolution as a proxy for a wider cultural conflict between what they considered progress and modernity, on the one side, and what they viewed as religious superstition and backwardness, on the other. Darrow, for one, believed that religion, particularly Christianity, led to unnecessary division within society and was an enemy of social progress.

## Scopes and Its Aftermath

At the urging of Bryan and evangelical Christian leaders, evolution opponents tried to ban the teaching of Darwin's theory in a number of states, including Kentucky and Florida. Although these efforts failed, evolution opponents eventually won a victory in 1925 when the Tennessee Legislature overwhelmingly approved legislation making it a crime to teach "any theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a lower order of animal." Soon after the Tennessee law was enacted, the ACLU offered to defend any science teacher in the state who was willing to break it. John Scopes, a teacher in the small, rural town of Dayton, Tenn., agreed to take up the ACLU's offer.

Meanwhile, Bryan and Darrow agreed to assist the prosecution and defense, respectively – turning an already highly publicized event into a media circus. Indeed, *State of Tennessee v. Scopes* (1925), popularly referred to as the Scopes "monkey" trial, was one of the first true media trials of the modern era, covered in hundreds of newspapers and broadcast live on radio. From the start, both sides seemed to agree that the case was being tried more in the court of public opinion than in a court of law.

Darrow and the ACLU legal team focused their attacks on the Tennessee statute, which they cited as a violation of church-state separation, and on the notion that biblical revelation could be an adequate substitute for science in the classroom. But state prosecutors effectively blocked the defense team's efforts in this regard, arguing that the issue before the court was not the Bible nor even the statute, but whether Scopes had violated the law.

As the trial progressed, it seemed increasingly clear that the defense team's hope of turning the case into a public debate about the merits of teaching evolution was being stymied by state prosecutors. But just when it seemed that the *Scopes* case might end with a whimper, Darrow made the highly unorthodox request of calling Bryan to the witness stand. Although the politician was under no obligation to testify, he acceded to Darrow's invitation.

With Bryan on the stand, Darrow proceeded to ask a series of detailed questions about biblical events that could be seen as inconsistent, unreal or both. For instance, Darrow asked, how could there be morning and evening during the first three days of biblical creation if the sun was not formed until the fourth? And was Jonah really swallowed by a whale? Bryan responded to these and similar questions in different ways. Often, he defended the biblical account in question as the literal truth, the work of a God of miracles. On other occasions, however, he admitted that something in Scripture might need to be interpreted in order to be fully accepted.

Although the largely local crowd observing the two-hour exchange was clearly on Bryan's side, most journalists and other observers believed that Darrow's cross-examination made his opponent seem inconsistent, flustered and, at times, even buffoonish. The next day, many big city papers hailed Darrow and savaged Bryan, who unexpectedly died less than a week later. And while Scopes was convicted of violating the anti-evolution law and fined, his conviction was later overturned on a technicality by the Tennessee Supreme Court.

Meanwhile, the trial, particularly Darrow's questioning of Bryan, created a tremendous amount of positive publicity for the pro-evolution camp, especially in northern urban areas, where the media and cultural elites were sympathetic toward Scopes and his defense. But this post-*Scopes* momentum did not destroy the anti-evolution movement. Indeed, in the years immediately following *Scopes*, two additional state legislatures – in Mississippi and Arkansas – enacted bills similar to the Tennessee law. Other states, particularly in the South and Midwest, passed resolutions condemning the inclusion of material on evolution in biology textbooks. These actions, along with a patchwork of restrictions from local school boards, prompted most publishers to remove references to Darwin from their science textbooks.

Efforts to make evolution the standard in all biology classes would have to wait a number of decades before bearing any fruit. This was due in large part to the fact that the government prohibition on religious establishment or favoritism, found in the Establishment Clause in the First Amendment to the U.S. Constitution, applied only to federal and not state actions. This meant that state governments were free to set their own policies on church-state issues. Only in 1947, with the Supreme Court's decision in *Everson v. Board of Education*, did the constitutional prohibition on religious establishment begin to apply to state as well as federal actions. Efforts to mandate the teaching of evolution also received a boost 10 years after *Everson*, in 1957, when the surprise Soviet launch of the first satellite, Sputnik I, prompted the United States to make science education a national priority.

### ***Epperson and Edwards: The Supreme Court Intervenes***

In 1968, in *Epperson v. Arkansas*, the Supreme Court finally turned its attention to anti-evolution laws. (See [Evolution: A Timeline](#).) The case concerned a challenge to a 1928 post-*Scopes* Arkansas law that made it a crime to teach evolution in a public school or state university. The law did not require the teaching of creationism or any other theory of life's origins and development but simply barred Darwinian evolution from the state's public educational system.

In a 9-0 decision, the high court ruled that the Arkansas law violated the First Amendment's Establishment Clause because it ultimately had a religious purpose, in this case preventing

students from learning a particular viewpoint antithetical to theologically conservative Christianity. “There can be no doubt that Arkansas has sought to prevent its teachers from discussing the theory of evolution because it is contrary to the belief of some that the Book of Genesis must be the exclusive source of doctrine as to the origin of man,” Justice Abe Fortas wrote for the majority. Using state power to advance this end, Fortas concluded, clearly amounted to an establishment of religion and hence was contrary to the First Amendment’s Establishment Clause.

*Epperson* put an end to state and local prohibitions on teaching evolution. Even before the case had been decided, however, a new anti-evolution movement, dubbed “creation science” or “scientific creationism,” was taking shape and beginning to influence the wider debate. Proponents of creation science contend that the weight of scientific evidence supports the creation story described in the biblical book of Genesis – with the formation of the earth and the development of life occurring in six 24-hour days. The presence of fossils and evidence of significant geological change are attributed to the great catastrophic flood described in the eighth chapter of Genesis, in which all life on Earth’s surface was destroyed save Noah, his family and the animals they had taken with them in the ark.

Throughout the late 19th and early 20th centuries, many conservative Christians had come to believe that the Earth was much older than the approximately 6,000 years biblical scholars had long estimated it to be. A turn toward what is known as “young Earth creationism” can be traced to 1961, when engineer Henry M. Morris and theologian John C. Whitcomb published *The Genesis Flood*. The book became the bible of the creation science movement, purporting to present scientific explanations for the creation, destruction and repopulation of the Earth as described in the book of Genesis.

*The Genesis Flood* became and remains a bestseller, helping to spawn a network of creation science think tanks, including the Institute for Creation Research, founded by Morris in 1970. Furthermore, in the wake of the *Epperson* ruling, creation science provided an alternative to the now-unconstitutional efforts to ban the teaching of evolution in public schools. In the early 1980s, two states, Arkansas and Louisiana, embraced creation science, passing what their legislatures called “balanced treatment” statutes that required creation science to be taught alongside evolution.

Both statutes were ultimately the subject of legal challenges. In 1982, the Arkansas law was struck down by a federal district court in *McLean v. Arkansas Board of Education*. In its analysis of the statute, the district court relied on a 1971 Supreme Court decision, *Lemon v. Kurtzman*, which set up a three-part test to determine whether a government action violates the Establishment Clause. Under the “*Lemon* test,” an action must have a bona fide secular purpose, must not advance or

inhibit religion and must not excessively entangle the government with religion. If the challenged action fails any one of the three parts of the *Lemon* test, it is deemed to have violated the Establishment Clause.

In *McLean*, District Judge William Overton ruled that the Arkansas law violated the Establishment Clause because it did not satisfy any of the *Lemon* test's three prongs. Overton noted that both the author of the act and those who lobbied for it publicly acknowledged its sectarian purpose, which, he said, was otherwise clear from an objective reading of it. Furthermore, Overton determined that creation science was not science, but based wholly on the biblical creation story. Therefore, he wrote, the teaching of creation science clearly advanced religion and entangled it with the government.

The U.S. Supreme Court entered the creation science debate five years later in *Edwards v. Aguillard* (1987), a case that, like *McLean*, involved a challenge to a balanced treatment law, this one from Louisiana. Like the Arkansas statute, the Louisiana act forbade the teaching of the theory of evolution in public schools unless it was accompanied by instruction in creation science. In a 7-2 decision, the Supreme Court ruled that the act violated the Establishment Clause because it did not meet the first, or secular-purpose, prong of the *Lemon* test. The high court did not bother to consider the second and third prongs of the test, since failure to satisfy any of the three is sufficient to nullify a government action.

Writing for the majority, Justice William Brennan stated that “the pre-eminent purpose of the Louisiana Legislature was clearly to advance the religious viewpoint that a supernatural being created humankind.” He dismissed the state’s contention that the aim of the act was to protect academic freedom and make the teaching of science more comprehensive. Actually, Brennan argued, the Louisiana law severely limited both aims by prohibiting the teaching of evolution unless certain other conditions were met. Furthermore, he maintained, the act’s legislative history clearly showed that the statute’s primary sponsor in the Louisiana Legislature hoped that passage would lead to the teaching of neither evolution nor creation science. If academic freedom and comprehensiveness were actually the purpose of the act, Brennan wrote, “it would have encouraged the teaching of all scientific theories about the origins of mankind.” Finally, Brennan left open the door for schools to teach other scientifically based critiques of evolution. “Teaching a variety of scientific theories about the origins of humankind to schoolchildren might be validly done with the clear secular intent of enhancing the effectiveness of science instruction,” he wrote.

Justice Antonin Scalia, in a dissenting opinion joined by Chief Justice William Rehnquist, took the majority to task for presuming to divine the actual, as opposed to the stated, intentions of the Louisiana Legislature. Scalia pointed out that the legislators had sworn an oath to uphold the

Constitution, understood the potential Establishment Clause problems and had taken several months to craft a bill that tried to meet these concerns. Given these facts, he wrote, the majority was essentially saying “that the members of the Louisiana Legislature knowingly violated their oaths and then lied about it.”

Scalia also criticized the majority for presuming to determine whether creation science was actually science and worth teaching in schools. Such a determination was the responsibility of the Louisiana Legislature, not federal courts, he said. Even if the legislators were wrong, Scalia argued, their error should not be deemed unconstitutional, as long as they sincerely believed that creation science was actually science.

## The Battle Over Disclaimers

Neither *Edwards* nor *Epperson* prohibits the teaching of biblical creationism in other contexts, such as part of a literature or world religions class. The Supreme Court has made clear in a number of cases involving the role of religion in schools that “the Bible may constitutionally be used in an appropriate study of history, civilization, ethics, comparative religion or the like” (*Stone v. Graham*, 1980). Nevertheless, *Edwards* essentially ended state efforts to bring creation science into public school science classes. As already noted, recent anti-evolution efforts have focused on other strategies, such as disclaimers and, in the last decade, intelligent design.

Efforts to require either oral or written evolution disclaimers have not met with success in federal courts. In a 1999 decision, *Freiler v. Tangipahoa Parish (La.) Board of Education*, the 5th U.S. Circuit Court of Appeals invalidated a disclaimer that teachers were expected to read to students in Tangipahoa, La., before beginning instruction in evolution. The statement in question urged students learning about evolution “to exercise critical thinking and gather all information possible and closely examine each alternative toward forming an opinion.” It also stated that teaching evolution was “not intended to influence or dissuade the biblical version of Creation or any other concept.” Writing for a unanimous three-judge panel, Judge Fortunato “Pete” Benavides determined that the disclaimer violated the second or “effect” prong of the *Lemon* test (which prohibits actions that advance or inhibit religion), concluding that “the primary effect of the disclaimer is to protect and maintain a particular religious viewpoint, namely belief in the biblical version of Creation.”

The most recent disclaimer case, *Selman v. Cobb County School District* (2005), also fell afoul of the *Lemon* test’s second prong. Unlike the oral disclaimer in *Freiler*, the statement approved by the Cobb County, Ga., school board was to be affixed to textbooks and did not mention the Bible, the biblical creation story or even religion. It read: “This textbook contains material on evolution.



Evolution is a theory, not a fact, regarding the origin of living things. This material should be approached with an open mind, studied carefully and critically considered.”

In *Selman*, District Judge Clarence Cooper ruled that while the disclaimer had a legitimate secular purpose (in this case, “fostering critical thinking”), it had the effect of advancing religion, due to the historical context in which most people in the area would view it. Indeed, Cooper wrote, because of longstanding opposition to teaching Darwin’s theory by many evangelical Christians and others in Cobb County, “the sticker sends a message to those who oppose evolution for religious reasons that they are favored members of the political community, while the sticker sends a message to those who believe in evolution that they are political outsiders.”

## **A New Challenge: Intelligent Design**

Most recently, courts have grappled with a new challenge to Darwinian evolution: intelligent design. Advocates of intelligent design argue that living systems are so complex that they could not have evolved purely by evolution through natural selection and instead must have been directed or designed by an outside force, most likely God. In particular, supporters of intelligent design point to what they say are “irreducibly complex” systems, such as the eye or the process by which blood clots, as proof that Darwinian evolution is not an adequate explanation for the development of life.

The great majority of scientists reject intelligent design, claiming that it is little more than creationism dressed up in scientific jargon. Many scientists do not even want to debate intelligent design proponents, arguing that doing so would give the movement a legitimacy it does not deserve.

Still, a small but highly visible cadre of researchers and thinkers contend that intelligent design will soon become a full-fledged, legitimate scientific theory. The modern intelligent design movement is only roughly two decades old, they point out. Indeed, the issue did not receive widespread attention until 1991, when Phillip Johnson, a law professor at the University of California at Berkeley, published his first book on the subject, *Darwin on Trial*. Even some proponents of intelligent design hesitate to treat the idea as a full-fledged theory; for instance, the nation’s premiere intelligent design think tank, the Discovery Institute in Seattle, opposed efforts to insert any mention of intelligent design into a high school biology curriculum, arguing that the theory is not developed enough to be taught in high schools.

But in October 2004, the school board in Dover, Penn., voted to include a brief mention of intelligent design in its high school biology curriculum. The resolution required teachers to read a lengthy disclaimer before students began learning about Darwinian evolution. The disclaimer

stated, in part, that evolution was a “theory,” that “gaps in the theory exist for which there is no evidence” and that “Intelligent Design is an explanation of the origin of life that differs from Darwin’s view.” A number of area families with children in the public school system then sued the board in federal district court, claiming that the new policy was unconstitutional.

In *Kitzmiller v. Dover Area School District* (2005) the district court struck down the new requirement, determining that it was an unconstitutional endorsement of religion. In his lengthy decision, District Judge John E. Jones III ruled that intelligent design is not science but “a religious argument” and “nothing less than the progeny of creationism.” Jones noted that in *Edwards*, the Supreme Court made it unconstitutional for public schools to teach creation science. More specifically, the judge ruled that because the school board singled out evolution for a disclaimer and introduced a religion-friendly alternative, “an objective student would view the disclaimer as a strong official endorsement of religion.” Moreover, Jones ruled, the actions of the school board clearly showed that they were motivated by a desire to “advance religion,” thus violating the first prong of the *Lemon* test.

The *Kitzmiller* decision was not appealed. All but one of the school board members who endorsed the curriculum change were not re-elected in November 2005, a month before the court decision. Their replacements did not support the teaching of intelligent design and had no interest in continuing to fight for a policy they fundamentally opposed.

Federal courts again weighed in on the question of evolution and science curricula five years later in *Association of Christian Schools International et al. v. Roman Stearns et al.* Calvary Chapel Christian School – an evangelical Protestant school – and a number of its students sued the University of California system after university officials determined that a number of science courses taught at Calvary Chapel did not meet the university’s admissions standards because they gave little or no attention to evolution. A federal district court in California ruled that the university system’s policy was not unconstitutional, and that decision was upheld by the 9th U.S. Circuit Court of Appeals. The Supreme Court declined to review the case, meaning the 9th Circuit ruling stands.

Battles over teaching evolution in schools did not end with the *Association of Christian Schools International* ruling. In 2013 alone, challenges to teaching evolution sprung up in school boards and legislatures in roughly a dozen states, making it likely that courts will once again be called upon to rule on some aspect of the controversy.