FEBRUARY 4, 2009

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The debate over whether and how to teach public school students about evolution may be an old one, but it shows no signs of abating. Indeed, in the last decade, questions about what students should learn about Darwin's theory have been debated in more than half the states in the union and at every level of state government, from legislatures to courts to local school boards.

In the past, some states banned the teaching of evolution or required that it be taught alongside the Judeo-Christian story of creation. But a number of landmark Supreme Court decisions have blocked these options. More recently, many states have considered laws giving teachers the freedom to question scientific theories including evolution, and such laws have been enacted in Louisiana and Tennessee (see below). In several other states, including Colorado and Florida, similar bills were introduced but did not pass. In Missouri, Oklahoma and Virginia, measures are currently being considered.

Supporters of these measures argue that they promote "academic freedom" and encourage teachers and students to think critically and to question long-held scientific theories and explanations. Those who oppose these laws counter that such efforts could replace scientific fact with religiously based notions in the classroom, leaving students with a gap in their understanding of life's origins and development.

What follows is a sampling of recent action in 13 states in which the teaching of evolution has stirred controversy and debate.

Alabama

In November 1995, Alabama's Board of Education voted to place stickers on public school biology textbooks instructing high school students that evolution was "a controversial theory" and that "any statement about life's origins should be considered as theory, not fact." Although the language has been tweaked over the years, the board voted unanimously in 2001 and 2005 to keep using the stickers.

California

In 2010, the U.S. Supreme Court declined to hear *Association of Christian Schools International et. al.* v. *Roman Stearns et. al.* The high court's decision let stand an earlier 9th U.S. Circuit Court of Appeals ruling that the <u>University of California system</u> is justified in deeming certain science

courses from Christian high schools as insufficient preparation for college because they do not adequately teach the theory of evolution.

Florida

In February 2008, Florida's Board of Education <u>revised its 12-year-old state science standards</u> to require the teaching of evolution for the first time. The updated Florida guidelines also state that "natural selection is a primary mechanism leading to evolutionary change" and that "the scientific theory of evolution is the fundamental concept underlying all of biology." These changes were considered a victory for supporters of Darwin's theory. However, the consistent use of the phrase "the scientific theory of evolution" rather than simply "evolution" troubled some evolution supporters, who argued that the word "theory" could be mistaken to mean a mere hunch rather than a tested explanation for a natural phenomenon.

Georgia

In 2002, after receiving a petition signed by more than 2,000 parents complaining that alternative theories to evolution were not being presented in public school science textbooks, the school board in Cobb County, Ga., placed stickers on biology textbooks instructing students that "evolution is a theory, not a fact, regarding the origin of living things." In January 2005, a <u>federal judge ruled that the stickers were unconstitutional</u> because they had the effect of endorsing a religious viewpoint. The county school board removed the stickers but appealed the ruling. In December 2006, following a settlement with the ACLU, the <u>school board withdrew its appeal</u>.

Kansas

The teaching of evolution in Kansas has been the subject of a long and contentious debate; indeed, the state's Board of Education has rewritten its science education guidelines on several occasions since 1999. A major change came in February 2007, when a new board voted to remove language from the science curriculum that questioned the theory of evolution and included a controversial definition of science. Then, in 2013, the board voted to adopt the Next Generation Science Standards, a new set of common guidelines for science education that were developed with input from 26 states. The standards indicate that students should be able to "communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence."

Kentucky

According to a Kentucky state law passed in 1976 and re-adopted in 1990, public school teachers who teach evolution may also teach "the theory of creation as presented in the Bible." Although

this law has not been challenged in court, reports vary over the extent to which creationism has been taught in public schools. In 1998, the Kentucky Board of Education voted to insert the word "evolution" for the first time into the state science curriculum guidelines. But just a year later, the board replaced "evolution" with the phrase "change over time." Now, <u>Kentucky is among several states poised to install</u> the Next Generation Science Standards.

Louisiana

In 1981, the Louisiana Legislature passed the Louisiana Balanced Treatment Act, which stipulated that whenever evolution was taught in a public school science classroom, creation science must be taught alongside it. In *Edwards v. Aguillard* (1987), the U.S. Supreme Court ruled that this law had a religious purpose and thus violated the Establishment Clause in the First Amendment to the U.S. Constitution. (The law is nonetheless <u>still on the books</u>.) In June 2008, Louisiana Gov. Bobby Jindal signed into law the controversial <u>Louisiana Science Education Act</u>, which allows public school teachers and school boards to provide supplemental educational materials that "help students understand, analyze, critique, and review scientific theories in an objective manner." Opponents say the materials could allow the teaching of <u>creationism in public schools</u>, and they have <u>tried unsuccessfully to repeal the law</u>. A federal <u>lawsuit filed by the ACLU</u> in January 2014 alleges that one Louisiana school district has promoted religion and taught creationism.

Michigan

In October 2006, the Michigan Board of Education <u>voted unanimously to pass new state science</u> <u>standards</u> that ensure the teaching of evolution but not the teaching of intelligent design or creation science. Language that some educators had argued cast doubt on the theory of evolution was removed from the final version of the guidelines. The new standards require public school students to be able to "explain how a new species or variety originates through the evolutionary process of natural selection" and "how the fossil record, comparative anatomy, and other evidence supports the theory of evolution."

Pennsylvania

In October 2004, the Dover, Pa., school board inserted an oral disclaimer into its ninth-grade biology curriculum that included brief instruction in intelligent design. A group of parents represented by the ACLU filed a lawsuit against the school board, claiming that the policy violated the First Amendment's Establishment Clause. In December 2005, a federal judge ruled in favor of the parents, describing intelligent design as "a religious view, a mere re-labeling of creationism, and not a scientific theory." In January 2006, a newly elected Dover school board unanimously rescinded the intelligent design disclaimer.

South Carolina

In June 2006, state officials approved new science standards requiring high school students to "summarize ways that scientists use data from a variety of sources to investigate and critically analyze aspects of evolutionary theory." While this change was heralded by intelligent design proponents, critics of the guidelines argue that they might allow religion to be taught in public school science classrooms. New proposed standards contain similar language, while stating that students should "demonstrate an understanding of biological evolution and the unity and diversity of life on Earth."

Tennessee

The site of the famous 1925 Scopes "Monkey" trial, Tennessee <u>passed a law in 2012</u> stating that "the teaching of some scientific subjects, including, but not limited to, biological evolution, the chemical origins of life, global warming, and human cloning, can cause controversy" and that "teachers shall be permitted to help students understand, analyze, critique, and review in an objective manner the scientific strengths and scientific weaknesses of existing scientific theories." Gov. Bill Haslam <u>allowed the bill to become law</u> without his signature. <u>Critics have called it the "monkey bill"</u> and say it could enable the teaching of creationism.

Texas

In 2009, the Texas Board of Education approved new standards for the science curriculum in the second-largest U.S. state that made a concession to each side in the debate. While the board removed a clause requiring teachers to address the "strengths and weaknesses" of scientific theories such as evolution, it added language instructing teachers to examine "all sides of scientific evidence." But since then, the board has come down squarely on the side of the scientific community. First, it voted to approve lessons teaching the principles of evolution. And in December 2013, the board approved a biology textbook that presents evolution as the only explanation for the development of life on earth, despite the objections of religious conservatives.

Wisconsin

In October 2004, the Grantsburg, Wis., school board became the first in the nation to allow the teaching of "various theories/models of origins" in its public school science curriculum. In response to concerns that the policy allowed the teaching of intelligent design and creation science, however, the school board revised the guidelines in December 2004 to state that "students shall be able to explain the scientific strengths and weaknesses of evolutionary theory. This policy does not call for the teaching of creationism or intelligent design." While Wisconsin public schools

are required by state law to teach evolution, district schools may determine the specifics of their own science curricula.

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