

# Science wins fight over evolution in schools, says Case Western Reserve University author

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If you want to understand how evolution has challenged the constitutionality of the separation of church and state, Mano Singham from Case Western Reserve University provides a concise and chronological history in his new book, *God vs. Darwin: the War between Evolution and Creationism in the Classroom* (Rowman & Littlefield, 2009).

*God vs. Darwin* comes just weeks before the 150th anniversary of Charles Darwin's landmark book, *On the Origins of Species*, which has been at the center of the debate over how the diversity of all living things came about. Did it happen largely through the mechanism of natural selection as Darwin proposed or, as religious fundamentalists believe, did some supreme being craft the universe about 6,000 years ago along with all the species we see around us, and in particular, design humans with higher thought processes?

The country's early leaders saw the potential dangers of having religion and religious establishments become too closely aligned with government and penned a Constitution with a First Amendment to protect freedoms of speech and the practice of all religions from Congressional interference. Later the 14th Amendment extended that ruling to state and local governments.

"The First Amendment places limits on what you can and cannot do in the public school classroom," says Singham, director of the University Center for Innovation in Teaching and Education at Case Western

Reserve University and adjunct associate professor of physics. "That amendment has been fleshed out over time, but many misunderstandings about that [history](#) exist."

He set about writing the book to clarify those misconceptions.

"School districts cannot take a position that endorses or opposes religion," he says, and adds that time and again, people have reworked language to try to bypass the Constitution in order to either oppose the teaching of [evolution](#) or to bring prayer and Bible readings back into the classroom.

Over the past century, evolution has become the rallying point to bring religion back into schools. Religious groups have stepped up efforts under such curricular guises as creation science, [creationism](#) and [intelligent design](#).

Singham traces this history, beginning long before the John Scopes trial in 1925 challenged the teaching of evolution in the schools and made that challenge part of the American popular culture in movies and stage plays such as *Inherit the Wind*.

What most people may not know is that hostility to evolution did not initially motivate the Scopes trial. It was a publicity ploy to bring attention—and possibly tourist business—to Dayton, Tennessee. Although it never made it to the U.S. Supreme Court, the case set the stage for other trials that would set precedents to bolster, instead of tear down, the wall of separation between church and state.

Among the major evolution trials were: *Epperson v. Arkansas* (1968) that found a 1928 Arkansas law banning the teaching of evolution to be unconstitutional; *Daniel v. Waters* (1975) that overturned and found unconstitutional a law requiring the "balanced treatment" of teaching the

Genesis story alongside evolution; and Edward v. Aguillard (1987) that found that just changing the balanced treatment mandate to require teaching a more neutral-sounding "creation science" was still unconstitutional because creation science invoked a supernatural agency as having a hand in creation. The last major case, Kitzmiller et al. v. Dover Area School District et al., was an attempt to advance the ideas of intelligent design. This was also found unconstitutional because it also had at its core a supernatural force and was thus religion- based.

The intelligent design idea was advocated by the Discovery Institute and attempted to bypass constitutional challenges and possibly make an inroad into the schools by removing all overt references to religion or requiring the teaching of alternative views to evolution. But School officials in Dover, by speaking out openly on behalf of religion, inadvertently sabotaged the Discovery Institute strategy.

The Dover case, says Singham, also brings the curtain down on the long history of religious groups trying to breach the wall between church and state.

According to Singham, losing the Dover case has demoralized the intelligent design movement, and at least for now, has put a nail in the coffin for religious groups to challenge evolution in the schools.

He thinks the issue is now settled, especially as the country's population seems to be shifting somewhat from organized religion to spiritualism or skepticism.

And, more evidence to support evolution continues to be discovered through scientific research, says Singham.

"The idea of evolution has caught the imaginations of people, who are interested in such findings as Tiktaalik (fish to amphibian fossil) or Ardi (a 4.4 million-year-old hominid skeleton)," says Singham.

But one message Singham wants readers to take away from his book is that the very Constitutional amendments that bar religion in the schools protect the freedom of religious practices.

"People who try to break down the separation of church and state are undermining the very thing that has served the country well and prevented a lot of interreligious fights," says Singham. Recalling the words of U.S. Supreme Court Justice Sandra Day O'Connor, he said, "Those who would renegotiate the boundaries between church and state must therefore answer a difficult question: Why would we trade a system that has served us so well for one that has served others so poorly?"

For now the battle between religion and Darwin has been won by science, says Singham.

Source: Case Western Reserve University ([news](#) : [web](#))

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