“Alternative Facts” in the Classroom: Creationist Educational Policy and the Trump Administration

NEW ENGLAND LAW | BOSTON

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- Public Education & Services
- Administrative & Requatory
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Monday, March 11, 2019

Despite a lengthy history of being struck down in court, bills permitting the teaching of “creation science” in public schools continue to appear in state legislatures across the country. In the first month of 2019 alone, five states have introduced creationist bills. These states are not alone. Within the past few years, a number of state legislatures have introduced bills permitting schools to “teach the controversy” between the theories of evolution and creationism. Somehow, an issue that the Supreme Court of the United States resolved three decades ago is still very much alive and contentious today.

The persistence of these creationist bills has taken on a new fervor with the apparent endorsement of creationist beliefs from the Trump Administration. This Administration, from its inception, has adopted a notoriously anti-science stance with regard to issues ranging from climate change to vaccinations. Unsurprisingly, many members of the Administration are disinclined to profess a belief in evolution as well. Secretary of Education Betsy DeVos and Vice President Mike Pence have publicly announced their belief that schools should “teach the controversy,” and President Trump has intentionally taken a neutral stance on the issue. Two states already allow creationism and the theory of evolution to be taught side-by-side, and more such legislation is being aggressively pushed forth. As of yet, none of these proposed bills have passed, but the margins by which such legislation is failing are narrower than they have been in years. These bills present a genuine danger, not only of violating the constitutionally-mandated separation between Church and State, but also of contributing to the already confusing atmosphere that religion has created in science education in the United States.

1. Creationism and the First Amendment

The U.S. Supreme Court, as well as a number of state courts, have weighed in on the issue of teaching creation science in public schools. Virtually without exception, these courts have held that requiring instruction on creationism is a clear violation of the First Amendment’s Establishment Clause, which prohibits the enactment of any law respecting an establishment of religion. In Lemon v. Kurtzman, the Supreme Court developed the three-pronged Lemon Test to determine whether legislation violates the Establishment Clause: “First, the legislature must have adopted the law with a secular purpose. Second, the statute’s principal or primary effect must be one that neither advances nor inhibits religion. Third, the statute must not result in an excessive entanglement of government with religion.” Failure to satisfy any of these prongs renders a statute unconstitutional.

1. Edwards v. Aguillard

In 1982, Louisiana introduced the “Balanced Treatment for Creation-Science and Evolution Science in Public School Instruction” Act (Creationism Act), which prohibited the teaching of evolution in public schools unless creationism was also taught. Neither was required to be taught, but per the statute, if one was taught, the other was also required to be taught. A group of parents of children in the Louisiana public school system, as well as local teachers and religious leaders, brought suit challenging the Creationism Act’s constitutionality and seeking injunctive and declaratory relief. In defense, the respondents claimed that the Act’s purpose was the protection of the “legitimate secular interest” of academic freedom. The Supreme Court of the United States granted certiorari, and agreed with the petitioners.

The appellant-respondents could not identify a clear secular purpose for the Creationism Act. The Act did not further the teaching of “all of the evidence” on the origin of humanity, since the Act explicitly banned teaching only one origin theory (evolution), and only required the teaching of two theories (evolution and Christian creation), without permitting any additional theories to be introduced. If “academic freedom” was truly the Legislature’s purpose, it would have encouraged teaching many theories on the origins of humanity, but “under the Act’s requirements, teachers who were once free to teach any and all facets of this subject [were] now unable to do so. Moreover, the Act fail[ed] even to ensure that creation science [would] be taught, but instead require[ed] the teaching of this theory only when the theory of evolution [was] taught.”

The Court found that the Legislature’s purpose, rather than to advance academic freedom, was to promote a primarily religious objective. Therefore, the Supreme Court held that the Creationism Act “advance[ed] a religious doctrine by requiring either the banishment of the theory of evolution from public school classrooms or the presentation of a religious viewpoint that rejects evolution in its entirety,” and “violat[ed] the Establishment Clause of the First Amendment because it seeks to employ the symbolic and financial support of the government to achieve a religious purpose.”

Per the U.S. Supreme Court, requiring public schools to give “balanced treatment” to the theories of evolution and creation science is unconstitutional, as is a complete ban on teaching evolution. In addition to the Supreme Court, a number of state courts have also weighed in on the issue, and have likewise found that the regulations are incapable of passing the Lemon Test and are therefore...
unconstitutional. Despite this, anti-evolution legislation continues to be introduced by state legislatures even to this day.

B. Is “Creation Science” Actually Science?

If creationism could be considered a “science,” it could possibly avoid conflict with the Establishment Clause because it would advance a secular purpose; therefore, some supporters of creationism have attempted to argue that creationism is a science. However, despite creative attempts at re-labeling creationism as “creation science,” “intelligent design theory,” and “emergence theory,” creationism is not a scientific theory, and therefore has no place in the science classroom. Multiple courts have held that these rebranded forms of creationism do not have any accepted scientific basis, and therefore cannot be considered a “science.”

The U.S. District Court for the Eastern District of Arkansas was among the first to engage in a comprehensive analysis of whether creation science was, in fact, a science, in McLean v. Arkansas Board of Education. Initially, the McLean Court noted that creation from nothing necessarily depends on supernatural intervention, and therefore cannot be guided by natural law, cannot be tested, and cannot be falsified, all of which are inherent tenets of science. In methodology, creationists do not utilize data in order to reach conclusions about the world; instead, they take the Book of Genesis at face value and then work tirelessly to mold scientific findings in order to support it. This is antithetical to the scientific method, which requires that a scientific theory be always tentative, revisable, or abandonable in the face of inconsistent facts and data. Finally, creationist works have not been published, subjected to peer review, or accepted by any major scientific organization in the county. In weighing all of these factors, the McLean Court found that creation science was not science in definition, in methodology, or in its view of the natural world.

In Kitzmiller v. Dover Area School District, the U.S. District Court for the Middle District of Pennsylvania engaged in perhaps an even more comprehensive analysis, expanding on many of the issues addressed in McLean. The Kitzmiller Court found that intelligent design failed to be a “science” on three levels: first, intelligent design permits the idea of supernatural causation, which is contrary to the longstanding conception that science must be based on natural phenomena; second, intelligent design attempts to bolster itself by utilizing the flawed logic that disproving evolution proves creationism; and third, intelligent design has been entirely refuted by the scientific community. In fact, one expert witness testified not only that science must be based on observable, testable, and verifiable natural phenomena, but that “attributing unsolved problems about nature to causes and forces that lie outside the natural world is a ‘science stopper.’” This is because the concept of an external, supernatural force cannot possibly be disproven, and if such a concept is accepted, there is no incentive to seek a true natural explanation.

The Kitzmiller Court noted that the mission of “creation scientists” is to rewrite the rules of science as a whole, allowing consideration of supernatural causation of the world, which both the Edwards and McLean Courts recognized was an inherently religious concept. The Court also considered that all major scientific associations in the country have taken the position that intelligent design is not, and cannot be, a science. For these reasons, the Court ruled that “[intelligent design] is not science and cannot be adjudged a valid, accepted scientific theory as it has failed to publish in peer-reviewed journals, engage in research and testing, and gain acceptance in the scientific community. [Intelligent design], as noted, is grounded in theology, not science.” Scientists and courts alike have determined that creation science is not a science; it therefore cannot be introduced in public schools as such.

C. Creationism as Government Endorsement of Religion

Public schools are funded by the state; therefore, in order to avoid the “government entanglement” with religion which the First Amendment proscribes, there can be no implicit or explicit establishment of religion within these schools. The Establishment Clause specifically seeks to prevent “sponsorship, financial support, and active involvement of the sovereign in religious activity.” Creationism may present itself as a “scientific” theory, but in reality, it is a belief in the Christian, scriptural account of the origin of humanity and the Earth. In fact, the Archbishop of Canterbury has advocated against the acceptance of creationism as a secular subject that may be taught in schools, stating, “I think creationism is, in a sense, a kind of category mistake, as if the Bible were a theory like other theories. Whatever the biblical account of creation is, it’s not a theory alongside theories. Creationism is a historically religious movement. It was formed in the 1920s in the midst of a massive upswing in Fundamentalist religious fervor across the United States, and was the direct result of Christian backlash against the Darwinian theory of evolution.” This sudden religious surge was accompanied by a great deal of legislation preventing the teaching of evolution in schools, almost always requiring that creationism be taught instead.

By definition, creationism involves the belief that God created the universe and all of the creatures in it. While it is true that many religions have their own beliefs regarding the creation of humanity, almost all creationist legislation in the United States is based in the Fundamentalist Christian view of that creation. This is evidenced not only by the historical roots of the movement but also by the inclusion of references to the worldwide flood in a number of creationist bills, which is an event unique to the Book of Genesis. Even if a statute does not include such a blatantly Christian view, one must necessarily believe in a God in order to believe in divine creation. Even advocates of intelligent design, who claim that the “intelligent designer” need not be God, largely tend to have God in mind when articulating their belief. Both creationists and intelligent design theorists believe that “the universe and everything in it could not have come into being without a supreme being causing it to happen,” which almost necessarily implicates a religious worldview. It is constitutionally impermissible for a public school to promote a Christian religious worldview over any others; therefore, regulations requiring the teaching of creationism without also introducing other views of creation violate the First Amendment as a government endorsement of a particular religion.

II. The Trump Administration and Anti-Intellectualism

1. The Tone-Setting Power of the Executive Branch

The beliefs and affiliations of the President tend to affect legislative action. Where the President endorses a particular belief, then legislators of the same party tend to do all they can to push through laws that coincide with that belief. For example, when President George W. Bush was elected, his supporters among the religious right utilized his political beliefs to focus on “volatile issues which they previously lacked the political clout to attack.” This resulted in an enormous push by Fundamentalists for anti-evolution, anti-abortion, anti-gay marriage, and anti-stem cell research bills.

The White House’s embracing of the anti-evolutionist mentality is therefore almost certain to have an effect on state legislatures, encouraging them in their efforts to pass creationist bills. In 2019 alone, five anti-evolution bills have been introduced, most of which
protect teachers who wish to ‘teach the controversy,’ ‘diversify the curriculum,’ and present ‘strengths and weaknesses’ of scientific theories. These bills have largely been introduced under the supposed secular interest in ‘academic freedom.’ However, where these acts attempt to push the teaching of creationism, a clearly religiously-based origin theory, into the science classroom, both academic and religious freedom are compromised. An anti-evolution act ‘unnaturally forces empirical work to compete with the spiritual world and pits a child’s intellect against his faith in what is intended to be a religiously-neutral forum.’

Repeated challenges to the validity of a tested scientific theory has ‘spawned a culture of confusion in American classrooms,’ which compromises the value of our students’ educations, especially when compared with peers from other countries, or even different portions of the United States. Often, even when evolution is taught as a part of the biology curriculum, teachers do not have enough knowledge about the subject itself to resolve this confusion on the part of the student, or do not feel that it is their role to do so. According to a 2017 Gallup poll, a startling proportion of this country’s population believes that God created humans as they presently are (38%) or that God guided the evolutionary development of humanity (also 38%). However, even more startling is how small a percentage believed that God had no hand in human evolution—a mere 19%. On the other hand, a National Geographic survey found that over 80% of European adults believed in evolution.

This gap in scientific understanding is likely to only become larger if the Trump administration is successful in enacting its intended educational policies. For example, Secretary of Education Betsy DeVos has long been an advocate of “school choice” for elementary, middle, and high school students, which would allow more students to be educated in private schools. She has lauded Florida’s school voucher system as an ideal model of such an educational system. The voucher system grants scholarships to lower-income students so that they have the option of enrolling in private school. However, around 82% of scholarship recipients in Florida attend religious schools, which teach creationism instead of evolution and frequently require students to abide by particular religious doctrines.

Studies have shown that students enrolled in these private schools do not perform any better than their peers in public school; therefore, the voucher system increases the proportion of students receiving unregulated and likely religious classroom instruction for little proven academic advantage. This suggests that DeVos’ efforts in favor of “school choice” may in fact be veiled attempts to push a religiously-motivated agenda by encouraging a greater number of students to enroll in religious, creationist schools. This is unsurprising, considering she has expressed her desire to utilize education reform in order to “advance God’s Kingdom” and to bring about “greater Kingdom gain.”

Decades of case law make it explicitly clear that it is impermissible to require the teaching of creationism in a public school classroom. Despite this, the Trump administration appears undeterred in their advocacy for “teaching the controversy” and encouraging a greater number of students to enroll in religious institutions. If this approach to education is widely-embraced, the country will be faced with the legitimate dangers not only of a shaken constitutional foundation, but of a generation of scientifically-illiterate students in a highly-scientific world. Discouraging students from engaging in true scientific analysis, and from questioning their own existing presumptions about how the world around them functions, will certainly dissuade those same students from pursuing much-needed careers in the STEM fields as adults. Introducing creationist teachings as a legitimate “alternative” to the theory of
evolution, therefore, would not only be an unconstitutional violation of the First Amendment’s prohibition against the establishment of religion in public school, but also could negatively impact the future of our country’s scientific progress as a whole.

III. Conclusion

The Supreme Court’s decision in *Edwards v. Aguillard* confirmed that requiring instruction in both creationism and evolution violated the First Amendment of the U.S. Constitution. Lower courts, such as the McLean and Kitzmiller Courts, have held that requiring instruction in creationism or in intelligent design amounts to an impermissible establishment of religion in the public school classroom. Despite extensive case law on the subject, anti-evolution advocates continue to vigorously push forth a creationist agenda, demanding that schools “teach the controversy.”

The Trump administration, the most notoriously anti-science administration in modern memory, has only added fuel to the creationist fire. With multiple high-ranking cabinet members being outspoken creationists, state legislatures and individual teachers have been reinvigorated in their efforts to push forward religious legislation that denies accepted evolutionary science. However, this surge of anti-evolution and pro-creationist sentiment has the potential to have an enormous negative impact on students and the American educational system as a whole. Not only is the introduction of creationism in public schools unconstitutional, but it also allows students to reject science and its methodology in favor of maintaining their preexisting beliefs, never questioning what they already know. This will inevitably lead to a large number of students being unprepared to compete with their peers in an increasingly secular and scientific world.

It is imperative that courts and legislatures continue to maintain the constitutional guarantee of a classroom free from religious entanglements. Otherwise, one of the core values underlying the foundation of our society will be compromised. Regardless of the constitutional implications, preparing students to think scientifically will allow them to better address the issues that will inevitably face our country in the near future. The Trump Administration may be heartening creationists, but it is important that the legal system maintain secular values in governmental institutions despite any pressure exerted by the Executive Branch.


[12] Id.

[13] Id.

[14] Id. at 588-89.

[15] Id. at 596-97.

[16] Freiler, 185 F.3d at 348; Kitzmiller, 400 F.Supp.2d at 763; McLean, 529 F.Supp. at 1272.


[20] Id.


[22] Id at 735.

[23] Id at 736.


[29] See Villareal, supra at 339–40; Wilson, supra at 212.


[33] See Id.

[34] Hall, supra at 186.

[35] Id.

[36] Branch, Supra.


[42] Id.

[43] Id.


[46] Hall, supra at 186.

[47] Id. See also Desilver, supra.


[50] Id.


[53] Id.

[54] Id.

[55] Id.

See, e.g., Edwards, 482 U.S. at 596–97; Epperson, 393 U.S. at 109; Freiler, 185 F.3d at 348; Kitzmiller, 400 F.Supp.2d at 729; McLean, 529 F.Supp. at 1272 (1982).

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