

Religion, Science and the Secular State: Creationism in American Public Schools[†]

Law may be seen as a series of expedients to influence, punish, reward, and authoritatively explain human behavior. Law tells us how to behave and places the assorted coercive powers of government behind that directive. Our governments compel us to follow the rule of law.¹ They sweeten their commands by assuring us that their laws will be uniformly applied² and that they will in their application pro-mote the public good.³ Their laws will, that is to say, create a good society. This assumes that it is possible to find a moral compass to tell good from bad in society – to know what good and bad people do.

Religion appears capable of supplying law's moral compass.⁴ Or moral guidance as firm and definitive may derive from a secular source. This essay will examine American law's commitment to the secular approach with particular reference to the current debate over creationism in the public school curriculum.

I. THE LEGAL LANDSCAPE

Ratified in 1791, the First Amendment to the U. S. Constitution begins: "Congress shall make no law respecting an establishment of religion"⁵ This is termed the Establishment Clause.⁶ The U.S. Supreme Court has extended Establishment Clause constraints on state governments and their subdivisions.⁷ The Clause is thought to prevent government favoritism of religious over secular concerns or favoritism of one religion over another.⁸ Among the numerous settings for Establishment Clause litigation⁹, have

GENE SHREVE is Richard S. Melvin Professor of Law, Indiana University, Bloomington, where he has received both the Leon Wallace Teaching Award and the Gavel Award. He has chaired the Civil Procedure and Conflict of Laws Sections of the Association of American Law Schools. He served on the editorial boards of the American Journal of Comparative Law and the Journal of Legal Education. He has been elected to the American Law Institute and to the American Society of Political and Legal Philosophy. He has served as United States Reporter to the 15th, 16th, and 18th International Congress of Comparative Law.

This article first appeared in 58 (Supp.) Am. J. Comp. L. 31 (2010). The General Reporters for this volume are grateful for permission to reprint it here. Professor Shreve expresses gratitude for the "prolonged and patient assistance of two faculty colleagues who are luminaries in their fields. My deepest thanks go to Dan Conkle for his guidance on the Establishment Clause and to Kevin Brown for his guidance on public education and the Constitution. Any errors are mine alone."

[†] DOI 10 5131/ajcl 2009 0041.

1. See Brian Z. Tamanaha, *On the Rule of Law: History, Politics, Theory* (2004).

2. "For any well functioning governance, it is as important that decisions seem appropriate as well as that they are appropriate. This is especially true for the courts, which are supposed to dispense even-handed justice." Kent Greenawalt, "The Enduring Significance of Neutral Principles," 78 *Colum. L. Rev.* 982, 999 (1978). In addition, see Lloyd L. Weinreb, *Legal Reason: The Use of Analogy in Legal Argument* (2005).

3. However open to dispute, these assurances are made by every government to its citizens. In totalitarian regimes, they may be associated with notions of propaganda and ideology. Dennis H. Wrong, *Power: Its Forms, Bases, and Uses* 96 (1995).

4. Thus, "principled constitutionalism" can be "constructed on the foundation of institutionalized religion." Larry Cata Backer, "Theocratic Constitutionalism: An Introduction to a New Global Legal Ordering," 16 *Ind. J. Global L. Studies* 85, 170 (2009).

5. Continuing, the amendment states "or prohibiting the free exercise thereof." This notion of religious freedom, that one can practice his or her religion of choice without government interference, has enjoyed a robust constitutional history comparable to that of the Establish Clause. See Peter K. Rofes, *The Religion Guarantees: A Reference Guide to the United States Constitution* 123-177 (2005).

6. A related provision in Article VI of the Constitution states: "no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States." However, the subsequent ratification of the First Amendment probably eclipsed this restriction. See *Torcaso v. Watkins*, 367 U.S. 488 (1961).

7. *Everson v. Board of Education*, 330 U.S. 1 (1947).

8. Daniel O. Conkle, *Establishment Clause*, *Encyclopedia of the American Constitution* 924 (2nd ed. 2000).

been the religion-based attempts by state and local governments either to block teaching of the biological theory of evolution¹⁰ in public schools or to diminish the effects of such teaching. Evolutionary theory provoked religious opposition from many Christians because it conflicted with the biblical account of living things created by God in unchanging form,¹¹ and because it suggested the age of the earth was far greater than theologians estimated by using the Bible.¹² This religious movement in opposition to evolution is often called creationism.¹³

Establishment Clause cases in this area represent three historical stages.

The earliest form of government opposition, and the most direct expression of creationism, was simply to ban teaching the scientific theory of evolution in American public schools. In the 1968 case, *Epperson v. Arkansas*,¹⁴ the U.S. Supreme Court ruled that this violated the Establishment Clause. An Arkansas statute that forbade teaching biological evolution in public schools was found unconstitutional by the Court because its purpose was to advance a particular religion's view.¹⁵

Creationists responded to the *Epperson* decision with a new approach. "The second generation of creationism statutes conceded that evolution could be taught, but required that creationist theory be given equal time."¹⁶ These initiatives, termed "balanced treatment" by their proponents, were brought to a halt by the Supreme Court in 1987. *Edwards v. Aguillard*¹⁷ extended the Court's *Epperson* ruling, striking down a Louisiana statute entitled "Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction." Once more the Court found a religious purpose in the legislation. *Edwards* currently provides the Supreme Court's last word on religion in the public school curriculum.

To some religious believers, [*Edwards*] embodies the hostility to all things religious to which the contemporary Court has led the Constitution, the regrettable triumph of secularism over faith. To others, such a result represents nothing more than the reality that the Constitution insists that religiously driven messages be disseminated in venues other than the American public school.

9. Important questions have arisen concerning the effect of the Clause on prayer in public schools, public financial assistance to religious institutions, public religious displays, religious content in public oaths of allegiance, and in many other settings. For comprehensive surveys, see Ronald D. Rotunda & John E. Nowak, *Treatise on Constitutional Law* Sec 21 3-21 5(e) (4th ed 2008); Rofes, *supra* n. 5 at 29-112.

10. "The theory of evolution is the central idea in modern biology." Dylan Evans & Howard Selina, *Introducing Evolution* 3 (2001). Charles Darwin (1809-1882) sought to answer two questions: Did species change – evolve – and, if so, how and why did change occur? There were numerous scientific observations prior to Darwin's work on the possibility of evolution. His most important contributions came in his answer to the second question, which he termed "natural selection." *Id.* at p 25.

11. "And out of the ground the LORD God formed every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that was the name thereof" Genesis 2:19 (King James Version).

12. Christian theologians computing all of the time mentioned in the bible determined the age of the earth to be about 6000 years "If the Bible was literally true [t]his was nowhere near enough time for evolution to take place" Evans & Selina, *supra* n. 10 at 12.

13. "Creationism is the belief that plants and animals were originally created by a supernatural being substantially as they now exist. Proponents of creationism today are primarily evangelical Christians who adopt a literal reading of the book of Genesis of the Bible." John G. West, "Creationism," *Encyclopedia of the American Constitution* 706 (2nd ed 2000) By this view, "Scripture" is taken "to be a special revelation from God himself, demanding our absolute trust and allegiance." Alvin Plantinga, "When Faith and Reason Clash: Evolution and the Bible," *Intelligent Design Creationism and its Critics* 113 (Robert T Pennock, ed. 2001).

14. 393 U.S. 97.

15. For discussions of *Epperson*, see Daniel O. Conkle, *Constitutional Law: The Religion Clauses* 170 (2nd ed. 2009); West, *supra* n. 13, at 706; ROTUNDA & NOWAK, *supra* n. 9, at 21 5(d).

16. Steven G. Gey, *Religion and the State* 183 (2nd ed 2006).

17. 482 U.S. 578 (1987) For discussions of the *Edwards* case, see Conkle, *The Religion Clauses*, *Id.* at 170-171; West, *supra* n. 13, at 707-708; Rotunda & Nowak, *supra* n. 9, at 21 5(d) In *Edwards*, as in *Epperson*,

"[t]he Court found that the challenged laws were intended to protect and further a religious understanding of human origins. As such they had the purpose of advancing and endorsing religion over irreligion, thereby confer-ring benefits on religion that were deliberately discriminatory and constitutionally impermissible." Conkle, *id.* at 169-170.

These differing cultural perspectives likely will not reconcile anytime soon. For now, however, [Establishment Clause] principles cast shadows of constitutional doubt over efforts to use the institutions of public education to inculcate students with a view of mankind's origins that comports with the view espoused by religious teachings.¹⁸

The creationist response to *Edwards* has been to regroup once more. This latest initiative has been to offer in the public school curriculum a theory in opposition to evolution called Intelligent Design. Intelligent Design is like earlier creationist positions in rejecting bio-logical concepts of evolution and natural selection. It is careful, however, to avoid reference to biblical sources or to the existence of a divine supernatural being. Proponents advance Intelligent Design as a rival scientific theory.¹⁹ It rests on “the argument that certain features of the natural world are so complex and intricately put together that they must have been deliberately fashioned.”²⁰ The legitimacy of intelligent design is debated within the scientific community,²¹ while its constitutional viability is debated among legal scholars.²² The Supreme Court has not yet considered a challenge to insertion of Intelligent Design into the public school curriculum. But lower courts have struck down such initiatives on Establishment Clause grounds, relying upon *Edwards*.²³

II. THE VIEW FROM THE OUTSIDE

Little of the U.S. Constitution is explicit or self-applying. The Supreme Court derives much of its considerable power from its professed need to expound on the meaning of a few words of constitutional text in order to resolve particular controversies before it.²⁴ The Supreme Court thereby makes most of our constitutional law through judicial doctrine and in increments – determining the rational effect of prior cases on new case facts. This means that the constitutional law making process of the Court moves in starts and stops as the court grapples with the facts – including the quirks and idiosyncrasies – of each new controversy. The Court's Establishment Clause jurisprudence bears this out. The only meaning clear from the text alone is that it bars creation of an official government religion. “Beyond the consensus on this indisputable proposition, however, much remains

18. Rofes, *supra* n. 5 at 56.

19. Intelligent Design proposals come in various forms, including efforts by school boards to directly advance the theory in science classes beside traditional scientific renditions of evolution theory, incorporation of Intelligent Design precepts in state science standards, and the placement of disclaimers in science textbooks. Gey, *supra* n. 16 at 184.

20. Margaret Talbot, “Darwin in the Dock,” *The New Yorker* 66 (5 December 2005).

21. E.g., compare Phillip E. Johnson, *Evolution as Dogma: The Establishment of Naturalism*, 59-76 (Robert T. Pennock, ed. 2001) (defending Intelligent Design as a legitimate scientific theory) with Robert T. Pennock, *Naturalism, Evidence, and Creationism: The Case of Phillip Johnson, Intelligent Design Creationism and its Critics* 77-97 (Robert T. Pennock, ed. 20001) (questioning the same).

22. E.g., compare David K. DeWolf, Stephen C. Meyer & Mark Edward DeForrest, *Teaching the Origins Controversy: Science, Or Religion, Or Speech*, 2000 *Utah L. Rev.* 39 (2000) (arguing that Intelligent Design can be taught in public schools without offending the Establishment Clause) with Matthew J. Brauer, Barbara Forrest & Steven G. Gey, “Is It Science Yet? Intelligent Design Creationism and the Constitution,” 83 *Wash. U. L. Q.* 1 (2005); Jay D. Wexler, “Darwin, Design, and Disestablishment: Teaching the Evolution Controversy in Public Schools,” 56 *Vand. L. Rev.* 751 (2003) (arguing the same to be unconstitutional).

23. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F. 3d 337 (5th Cir 1999), *cert denied*, 530 U.S. 1251 (2000); *Kirtzmilller v. Dover Area School District*, 400 F. Supp. 2d 707 (M. D. Pa. 2005); *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286 (N. D. Ga.) These cases are examined in Gey, *supra* n. 16, at 185-186 *Kirtzmilller*, involving an attempt by a local Pennsylvania school board to introduce Intelligent Design into the science curriculum, has received the most attention. For a fascinating account of the trial there, see Talbot, *supra* n. 20.

It should be noted that the result shared by Epperson, Edwards, and the cases above – that religious purpose in public school teaching violates the Establishment Clause – might suggest far more clarity and continuity in judicial doctrine than actually exists. See notes 25-27 and accompanying text, *infra*.

24. In the landmark case, *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803), the Supreme Court claimed the power to invalidate an act of Congress on this basis.

up for grabs among the justices regarding the precise contours of the anti-establishment principle.”²⁵

Doctrine applicable to the creationism question suffers from uncertainties of constitutional history²⁶ and from the failure to adequately define “religion.”²⁷ It is impossible to grapple with these interior concerns of the structure and fabric of Establishment Clause doctrine²⁸ within the space permitted here. But I can take a different perspective that my international readers may find at least as interesting: a view from the outside. I will devote the balance of the paper to some thoughts on the larger social, political, and legal significance of the Supreme Court’s creationism cases.

While religious antagonism toward scientific theory has long existed,²⁹ science has never been antagonistic toward religion. Rather it is indifferent to it, as it is to all moral concerns. Natural science is preoccupied with the physical world. It is usually enough for scientific theory to state and support a causal rule, *viz.*, to explain why a particular phenomenon occurs and will repeat itself.³⁰ Lofty moral questions – religious or secular – have no place in science.³¹ They are uninteresting to scientists because they “cannot be tested and proved in the same way that an hypothesis in physics or chemistry can be falsified or verified.”³²

Consider the Copernican Revolution. The discovery that the earth was merely one of several planets revolving around the sun assaulted the belief in “the earth as the unique and focal center of God’s creation.”³³ While they were denounced as satanic figures, neither Copernicus nor Galileo set out to affect religion. Copernicus only wanted to simplify astronomical theory and make it more accurate. He found he could do this “by transferring to the sun many astronomical functions previously attributed to the earth.”³⁴ Galileo intended to advance no religious point of view in developing the telescope. But he “popularized astronomy, and the astronomy that [he] popularized was Copernican.”³⁵

Perhaps the indifference of scientists to the damaging effects their discoveries can have on religious belief is as infuriating to some religious persons as if scientists set out to do them harm. This appears true for the biological theory of evolution, which remains highly controversial today. A recent news report disclosed that a “British film about Charles Dawrin has failed to find a U.S. distributor because his theory of evolution is too controversial for American au percentences.”³⁶ The story went on to note that, according to a February Gallup poll, “only 39 percent of Americans believe in evolution.”³⁷ This

25. Rofes, *supra* n. 5 at 30.

26. One commentator has lamented, the selective and self-contradictory use of historical evidence by advocates on both sides. In no area of American constitutional law have judges and scholars more consistently resorted to historical materials as the foundation of their analytical structures than in the church-state area. Yet, to date, they generally have used these materials in a way that has obscured the meaning of the First Amendment’s provisions on religion.

John Sexton, “Of Walls, Gardens, Wildernesses, and Original Intent: Religion and the First Amendment,” *America in Theory* 85 (Leslie Berlowitz, et al. eds. 1988).

27. Ronald J Krotoszynski, Jr., Steven G. Gey, Lyriisa C. Barnett Lidsky & Christina E. Wells, *The First Amendment: Cases and Theory* 758 (2008) (“The Supreme Court has never provided a definitive definition of the term ‘religion’ in its Establishment Clause decisions”); Wexler, *supra* n. 22, at 815 (“Courts and commentators have spilled much ink over the question of how to define ‘religion’ for First Amendment purposes, but the Supreme Court has never spoken authoritatively on the issue”).

28. Examples of such scholarship appear in n. 22, *supra*.

29. In “about 450 B. C., Anaxagoras shocked conservative opinion in Athens by declaring that the sun and the moon were red-hot stones, which meant they could not be divinities.” S. G. F. Brandon, *Origins of Religion, Dictionary of the History of Ideas*, vol. IV, 93 (1973).

30. Numerous examples appear in Thomas Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (1996).

31. Scientists only choose problems that “can be assumed to have solutions * * * One of the reasons why normal science seems to progress so rapidly is that its practitioners concentrate on problems that only their own lack of ingenuity should keep them from solving.” *Id.* at 37.

32. Thomas Fleming, *The Politics of Human Nature* 9 (1988).

33. Thomas S. Kuhn, *The Copernican Revolution* 2 (1957).

34. *Id.* at 1.

35. *Id.* at 225.

36. Anita Singh, “Charles Darwin film ‘too controversial’ for religious America,” *Telegraph Co UK*. (11 September 2009).

37. *Id.*

seems to bear out the observation of a distinguished First Amendment scholar that “there has been tremendous controversy concerning the topic of human origins and how it should be taught in the public schools.”³⁸ We might ask then a couple of questions. Is it appropriate for the U.S. Supreme Court to consider the effect of its decisions on the public? And, if so, has the Court done so here?

Like all judges serving under Article Three of the U. S. Constitution, justices of the Supreme Court are appointed rather than elected and have their appointments for life. One can say that the strength of the Supreme Court lies precisely in the fact that it is protected from the wrath of public opinion and from the corresponding political pressure felt by the legislative and executive branches of the federal government. This does not mean however that the Court should be unconcerned about public reaction to its decisions. In the words of Alexander Bickel, “[b]road and sustained application of the Court’s law, when challenged, is a function of its rightness, not merely of its pronouncement.”³⁹

The public is entitled to ask – and constantly does ask – whether the Supreme Court’s decisions improve society. The Court cannot flee from controversy. But we should be able to find in its controversial decisions vindication of clear principles that, to many at least, make the price of public outcry worth paying. The principles of racial equality in *Brown v. Board of Education of Topeka*⁴⁰ and of women’s right to choose whether to have children in *Roe v. Wade*⁴¹ are illustrations.

In contrast, the creationism cases have established little in the nature of principle. The First Amendment restricts only government action. It poses no ban on the teaching of creationism in private schools or to home-schooled children. Creationism can be included in even the public school curriculum. It is clear from the Supreme Court’s opinion in *Edwards v. Aguillard* that the Louisiana legislature would have been free to include a component on creationism is part of a required course on comparative religious thought or on con-temporary social issues.⁴²

Attempts to introduce creationism into the public school curriculum failed in *Edwards* and elsewhere only because creationism was to be taught as scientific fact. To be sure, it is commendable to protect public school students from scientific misinformation. This has been seen as an important contribution of the Court’s creationism cases.⁴³ It is no more, however, than a fortunate side effect. We value public education in this country.⁴⁴ But, unlike freedom of expression, it does not enjoy the status of a constitutional right.⁴⁵ Even the most back-ward secular misrepresentations in the public school curriculum – for example about the dangerous effects of fluoridation, the nonexistence of the Holocaust, or the historic absence of racial injustice⁴⁶ – would be unaffected by the Establishment Clause. They may not even be unconstitutional.⁴⁷

38. Conkle, *The Religion Clauses*, supra n. 15 at 169.

39. A. M Bickel, *The Least Dangerous Branch: the Supreme Court at the Bar of Politics* 258 (1962).

40. 347 U.S. 483 (1954).

41. 410 U.S. 113 (1973).

42. 482 U.S. at 593-594.

43. See, e.g., Steven Goldberg, *The Constitutional Status of American Science*, 1979 U. Ill. L. F. 1; Steven Jay Gould, *Justice Scalia’s Misunderstanding*, 5 Const Comment 1 (1988).

44. “Education expresses what is, perhaps, our deepest wish: to continue, to go on, to persist in the face of time. It is a program for social survival.” Michael Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* 197 (1983).

45. The right to an education may be expressly secured elsewhere, e.g., Constitution of the Republic of Liberia, Article 5(c) (1986) (guaranteeing “educational opportunities”); Universal Declaration of Human Rights, Article 26 (1948) (“Everyone has the right to education.”)

46. “I recall from my own childhood being taught in a public school of the District of Columbia, as though there were no room for debate on the matter, that the slaves in the antebellum South were essentially happy and had no desire to be free.” Stephen L. Carter, *Evolutionism, Creationism, and Treating Religion as A Hobby*, 1987 *Duke L J* 977, 990. Professor Carter’s conclusions on Supreme Court doctrine in creationist cases are generally in line with those advanced in this paper. I regret that I am unable to give more attention to his excellent article.

47. Thus, *Grimes v. Sobol*, 832 F Supp 704 (S D N Y 1993), *aff’d* 37 F 3d 857 (2d Cir 1994), involved a challenge to the New York City public schools that the curriculum presented an inaccurate and biased picture of African-Americans. The courts ruled that, while inaccurate and biased, the curriculum withstood challenge under

the Equal Protection Clause of the Fourteenth Amendment, because plaintiffs failed to prove that defendants deliberately made the distortions to harm them and other blacks. For an illuminating discussion of the *Grimes* case, see Kevin Brown, *Race, Law and Education in the Post-Desegregation Era* 265-266 (2005).