

Note

Fruit of the Poison Tree: A First Amendment Analysis of the History and Character of Intelligent Design Education

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During a press conference on August 1, 2005, a reporter asked President George W. Bush his opinion as to whether the theory of Intelligent Design should be taught alongside evolution in public schools.¹ “Bush avoided a direct answer, construing the question instead as a fairness issue: ‘you’re asking me whether or not people ought to be exposed to different ideas, and the answer is yes.’”² That simple exchange has refueled a national debate in the popular media, the academic world, and the courts over the propriety of teaching evolution and other theories of human origin in public schools.³ But the question remains: does teaching the theory of Intelligent Design in public school science classrooms violate the separation of church

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1. See Nat’l Ctr. for Sci. Educ., More on President Bush’s Remarks on “Intelligent Design” (Aug. 8, 2005), http://www.ncseweb.org/resources/news/2005/US/926_more_on_bush39s_remarks_on__8_8_2005.asp.

2. *Id.*

3. See, e.g., *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005); John Angus Campbell & Stephen C. Meyer, Op-Ed., *How Should Schools Handle Evolution?: Debate It*, USA TODAY, Aug. 15, 2005, at 13A, available at http://www.usatoday.com/news/opinion/editorials/2005-08-14-evolution-debate_x.htm; Eugenie C. Scott & Glenn Branch, Op-Ed., *How Should Schools Handle Evolution?: Just Teach It*, USA TODAY, Aug. 15, 2005, at 13A, available at http://www.usatoday.com/news/opinion/editorials/2005-08-14-evolution-teach_x.htm; Press Release, Am. Soc’y of Agronomy, Crop Sci. Soc’y of Am. & Soil Sci. Soc’y of Am., Scientific Societies Support Teaching Evolution (Aug. 15, 2005), http://www.asa-cssa-sssa.org/pdf/intdesign_050815.pdf; Nat’l Ctr. for Sci. Educ., *supra* note 1.

and state embodied in the Establishment Clause of the First Amendment?

This Note argues that it does. Intelligent Design is not the first challenger to evolution. It is, rather, the latest in a long line of inherently religious theories the teaching of which has consistently been struck down by the federal courts. Independent of this historical pedigree, Intelligent Design postulates the inherently religious idea that an extraterrestrial or supernatural intelligence created life. Under established case law, teaching the truth of a theory characterized by these two attributes is constitutionally impermissible.

Part I of this Note describes the historical development of the evolution-creationism debate and the applicable case law. Part II analyzes the teaching of Intelligent Design in public school science classes under both the test that the Supreme Court uses to evaluate controversies involving human origin education and another test often applied by some lower courts and commentators. Part II also discusses and rejects two oft-propounded justifications for teaching Intelligent Design. Finally, Part II concludes that due to the character and historical pedigree of Intelligent Design, an Establishment Clause violation occurs whenever this theory is taught in public school science classes. Part III offers ways for public schools to provide a complete human origin education while avoiding constitutional problems.

I. HUMAN ORIGIN LITIGATION UNDER THE ESTABLISHMENT CLAUSE

Intelligent Design posits that an intelligent agent designed life on earth. Teaching this theory in public schools therefore implicates the separation of church and state embodied in the Establishment Clause of the First Amendment.

A. THE SUPREME COURT'S ESTABLISHMENT CLAUSE JURISPRUDENCE

As one commentator aptly noted, “[T]he Supreme Court’s Establishment Clause jurisprudence [is] both confusing and unpredictable.”⁴ The First Amendment states that “Congress shall make no law respecting an establishment of religion, or

4. Jay D. Wexler, Note, *Of Pandas, People, and the First Amendment: The Constitutionality of Teaching Intelligent Design in the Public Schools*, 49 STAN. L. REV. 439, 455 (1997).

prohibiting the free exercise thereof.”⁵ It is well accepted that the Establishment Clause applies to state governments as incorporated through the Fourteenth Amendment.⁶ But the Supreme Court has recognized that “States and local school boards are generally afforded considerable discretion in operating public schools.”⁷ The Court has further stated that “[j]udicial interposition in the operation of the public school system . . . raises problems requiring care and restraint.”⁸ When decisions of states and school boards demonstrably run afoul of the First Amendment, however, the Court has been willing to intercede. It has found Establishment Clause violations where public schools have facilitated praying,⁹ Bible reading,¹⁰ observing moments of silence for purposes of prayer,¹¹ and displaying copies of the Ten Commandments.¹²

The Court has developed several tests to evaluate conduct under the Establishment Clause. The test developed in *Lemon v. Kurtzman*¹³ was once considered the “Grand Unified Theory” of Establishment Clause jurisprudence, but its status has since declined.¹⁴ Although the *Lemon* test remains the only one the Court has applied to controversies involving the teaching of

5. U.S. CONST. amend. I.

6. See, e.g., *Cantwell v. Connecticut*, 310 U.S. 296, 303 (1940).

7. *Edwards v. Aguillard*, 482 U.S. 578, 583 (1987).

8. *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968).

9. See, e.g., *Santa Fe Indep. Sch. Dist. v. Doe*, 530 U.S. 290, 298, 315–17 (2000) (finding that a policy permitting student-initiated and student-led prayer at football games violated the Establishment Clause); *Lee v. Weisman*, 505 U.S. 577, 581–82, 598–99 (1992) (finding that a nonsectarian prayer delivered by a clergyman during a public middle school graduation ceremony was an Establishment Clause violation).

10. See, e.g., *Abington Sch. Dist. v. Schempp*, 374 U.S. 203, 205 (1963) (finding a requirement of daily Bible reading in public schools to be an Establishment Clause violation).

11. See, e.g., *Wallace v. Jaffree*, 472 U.S. 38, 40–41, 59–61 (1985) (finding a state statute mandating a moment of silence for “meditation or voluntary prayer” to be an Establishment Clause violation (quoting ALA. CODE § 16-1-20.1 (Supp. 1984))).

12. See, e.g., *Stone v. Graham*, 449 U.S. 39, 39–40, 42–43 (1980) (finding a statute that required the posting of the Ten Commandments in all public school classrooms in the state to be an Establishment Clause violation).

13. 403 U.S. 602 (1971).

14. See *Wexler*, *supra* note 4, at 455; see also, e.g., *Tangipahoa Parish Bd. of Educ. v. Freiler*, 530 U.S. 1251, 1253 (2000) (Scalia, J., dissenting) (reiterating his disapproval of the *Lemon* test), *denying cert. to* 185 F.3d 337 (5th Cir. 1999).

theories of human origin,¹⁵ the endorsement test¹⁶ is a substitute widely supported among commentators and recently applied in this context by a district court in the Third Circuit.¹⁷

Under the three-pronged *Lemon* test, “a government-sponsored message violates the Establishment Clause of the First Amendment if: (1) it does not have a secular purpose; (2) its principal or primary effect advances or inhibits religion; or (3) it creates an excessive entanglement of the government with religion.”¹⁸ If any of these prongs are breached, there is an Establishment Clause violation.¹⁹

Since *Lemon*, however, this simple three-pronged test has evolved. Courts have recognized that “the second and third prongs of the *Lemon* test are interrelated insofar as courts often consider similar factors in analyzing them.”²⁰ Many circuits have combined the last two prongs “into a single ‘effect’ inquiry.”²¹ In addition, the Court “has emphasized that there is no bright-line rule for evaluating Establishment Clause challenges and that each challenge calls for line-drawing based on a fact-specific, case-by-case analysis.”²²

15. For one example of a circuit court applying the *Lemon* test in the context of teaching theories of human origin, see *Freiler v. Tangipahoa Parish Board of Education*, 185 F.3d 337 (5th Cir. 1999).

16. A majority of the Court adopted and applied the endorsement test in *County of Allegheny v. ACLU*, 492 U.S. 573, 592–94 (1989). See also *Modrovich v. Allegheny County*, 385 F.3d 397, 399, 406–13 (3d Cir. 2004) (applying the endorsement test to determine the legality of displaying the Ten Commandments on a courthouse); Deborah A. Reule, Note, *The New Face of Creationism: The Establishment Clause and the Latest Efforts to Suppress Evolution in Public Schools*, 54 VAND. L. REV. 2555, 2567 (2001) (describing the endorsement test).

17. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 712 (M.D. Pa. 2005) (“[B]oth the endorsement test and the *Lemon* test should be employed . . . to analyze the constitutionality of [teaching Intelligent Design] under the Establishment Clause . . .”).

18. *Id.* at 746 (citing *Lemon*, 403 U.S. at 612–13).

19. *Glassroth v. Moore*, 335 F.3d 1282, 1295 (11th Cir. 2003).

20. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1299 (N.D. Ga. 2005) (citing *Agostini v. Felton*, 521 U.S. 203, 232–33 (1997); *Holloman ex rel. Holloman v. Harland*, 370 F.3d 1252, 1284–85 (11th Cir. 2004)).

21. *Id.* (citing *Child Evangelism Fellowship of N.J. Inc. v. Stafford Twp. Sch. Dist.*, 386 F.3d 514, 534 (3d Cir. 2004); *Holloman*, 370 F.3d at 1285; *Commack Self-Serv. Kosher Meats, Inc. v. Weiss*, 294 F.3d 415, 424 (2d Cir. 2002); *Columbia Union Coll. v. Clarke*, 159 F.3d 151, 157 (4th Cir. 1998)).

22. *King v. Richmond County*, 331 F.3d 1271, 1275–76 (11th Cir. 2003) (citing *County of Allegheny v. ACLU*, 492 U.S. 573, 592 (1989); *Lynch v. Donnelly*, 465 U.S. 668, 679 (1984)).

Under the purpose prong of the *Lemon* test, a court will ask “whether government’s actual purpose is to endorse or disapprove of religion.”²³ Although the Court has said that governmental action will violate the purpose prong only if it is “entirely motivated by a purpose to advance religion,”²⁴ it has also held, more specifically, that a “religious purpose must not be preeminent.”²⁵ In general, an examining court “should defer to a state’s articulation of a secular purpose, so long as the statement is sincere and not a sham.”²⁶ The factual context and contemporaneous legislative history elucidate this inquiry.²⁷

The effects prong of the *Lemon* test “asks whether the [governmental action] at issue in fact conveys a message of endorsement or disapproval of religion to an informed, reasonable observer.”²⁸ Courts have described this “informed, reasonable observer” as “someone who personifies the ‘community ideal of reasonable behavior’ and is familiar with the origins and context of the government-sponsored message at issue and the history of the community where the message is displayed.”²⁹ This determination is not made solely on the basis of factual findings, but is rather primarily a legal question based largely on judicial interpretation of social context.³⁰

As an alternative to the *Lemon* test in the context of Establishment Clause violations, some lower courts and commentators have employed the endorsement test. A district court in the Third Circuit recently applied this test to evaluate the constitutionality of teaching Intelligent Design in public schools.³¹

23. *Lynch*, 465 U.S. at 690 (O’Connor, J., concurring).

24. *See* *Wallace v. Jaffree*, 472 U.S. 38, 56 (1985).

25. *Selman*, 390 F. Supp. 2d at 1300 (citing *Stone v. Graham*, 449 U.S. 39, 41 (1980)).

26. *Id.* (citing *Edwards v. Aguillard*, 482 U.S. 578, 586–87 (1987)).

27. *Id.* (citing *Edwards*, 482 U.S. at 594).

28. *Id.* at 1305 (citing *Wallace*, 472 U.S. at 56 n.42; *Glassroth v. Moore*, 335 F.3d 1282, 1297 (11th Cir. 2003); *Bown v. Gwinnett County Sch. Dist.*, 112 F.3d 1464, 1472 (11th Cir. 1997)).

29. *Id.* at 1306 (citing *Capitol Square Review & Advisory Bd. v. Pinette*, 515 U.S. 753, 779–81 (1995) (O’Connor, J., concurring in part and concurring in the judgment); *Turner v. Habersham County*, 290 F. Supp. 2d 1362, 1372 (N.D. Ga. 2003)).

30. *Lynch v. Donnelly*, 465 U.S. 668, 693–94 (1984) (O’Connor, J., concurring).

31. *See* *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 712 (M.D. Pa. 2005) (“[B]oth the endorsement test and the *Lemon* test should be employed . . . to analyze the constitutionality of [teaching Intelligent Design] under the Establishment Clause . . .”).

Justice O'Connor first proposed the endorsement test in her concurrence in *Lynch v. Donnelly*,³² and a majority of the Court later adopted it in *County of Allegheny v. ACLU*.³³ The test "determine[s] whether a statute or action promotes or supports one religious ideology over any other" by "examin[ing] whether state action endorses a particular religion or religious belief."³⁴ Under this test, a court assesses the message a particular practice conveys in light of its proponents' subjective intent and observers' objective perceptions.³⁵ The practice violates the Establishment Clause if it "sends a message to nonadherents that they are outsiders . . . and an accompanying message to adherents that they are insiders."³⁶ When evaluating the perceptions of objective observers, a court must consider the "context in which the contested object appears."³⁷ Justice O'Connor elaborated that "the 'history and ubiquity' of a practice is relevant because it provides part of the context in which a reasonable observer evaluates whether a challenged governmental practice conveys a message of endorsement of religion."³⁸

B. HUMAN ORIGIN EDUCATION JURISPRUDENCE

Courts have heard cases involving issues of human origin education since the 1920s. The types of legal challenges have changed along with public and scientific understandings of the different theories involved, but the basic controversy has invariably focused on the question of whether to teach evolution or creationism.

Charles Darwin sparked the evolution-creationism controversy in 1859 with the publication of *The Origin of Species*,³⁹ which introduced the world to the concept of evolution. Derek Davis noted that the "theory of organic evolution was the first

32. See *Lynch*, 465 U.S. at 687–94 (O'Connor, J., concurring).

33. See 492 U.S. 573, 592–94 (1989).

34. Reule, *supra* note 16, at 2567 (summarizing the test set forth in Justice O'Connor's concurrence in *Lynch*, 465 U.S. at 687–94).

35. *Lynch*, 465 U.S. at 690 (O'Connor, J., concurring).

36. *Id.* at 688.

37. *County of Allegheny*, 492 U.S. at 595.

38. *Id.* at 630 (O'Connor, J., concurring in part and concurring in the judgment).

39. CHARLES DARWIN, *THE ORIGIN OF SPECIES* (Gillian Beer ed., Oxford Univ. Press 1996) (1859).

serious challenge to traditional beliefs in divine creation,”⁴⁰ and contemporary scientists struggled to reconcile it with then-widely accepted biblical truths.⁴¹ As Davis explained, Darwinism “shattered” the notion that species had unchanging characteristics, “and with it the view that humans are a distinct species, a special creation of God.”⁴²

Although most of the scientific community quickly accepted Darwin’s theory unmodified, other segments of society attempted to reconcile it with their religious beliefs.⁴³ Many “insisted that evolutionary development was compatible with purposeful design.”⁴⁴ By the beginning of the twentieth century, however, science had advanced, and the evidence of evolution became overwhelming. Consequently, these combination evolution-creationism theories became “increasingly untenable.”⁴⁵

The science classrooms of public secondary schools soon reflected these changes. According to Davis, “Within twenty years after the publication of *Origin of Species*, the sophisticated way to teach science was to teach evolutionary theory.”⁴⁶ As evolution became the educational norm, its opponents came to view the theory as an attack on religion itself.⁴⁷ The conflict pushed each side of the debate to adopt the extreme of its position.⁴⁸ “The proponents of creationism declared war on the evolutionists, a war whose biggest battlefield would become the nation’s public schools.”⁴⁹

William Jennings Bryan led the creationist side of the battle.⁵⁰ Bryan’s campaign against evolution resulted in, among other things, a Tennessee law banning the teaching of evolution in public schools.⁵¹ It was the violation of this law for

40. Derek H. Davis, *Kansas Versus Darwin: Examining the History and Future of the Creationism-Evolution Controversy in American Public Schools*, 9 KAN. J.L. & PUB. POL’Y 205, 210 (1999).

41. *See id.*

42. *Id.*

43. *See id.* at 210–11.

44. *Id.* at 210.

45. *See id.* at 211 (explaining the simultaneous explosion of evidence for evolution and the secularization of science as a discipline).

46. *Id.*

47. *See id.*

48. *See id.*

49. *Id.* at 212.

50. *See* Wexler, *supra* note 4, at 445.

51. *Id.* at 446.

which John Scopes was arrested and tried in 1925.⁵² Bryan prosecuted the case on behalf of the State of Tennessee.⁵³ Scopes allowed Clarence Darrow and the ACLU to represent him in arguing that the Tennessee law was unconstitutional.⁵⁴

The Scopes Trial⁵⁵ was the first notable legal challenge to the teaching of evolution and one of the most famous trials of the early twentieth century.⁵⁶ The failure of Darrow's legal team to procure a declaration that the Tennessee ban on the teaching of evolution was unconstitutional⁵⁷ encouraged several other states to enact similar bans.⁵⁸ Mississippi and Arkansas in 1926 and 1928, respectively, passed laws prohibiting the teaching of evolution in public schools.⁵⁹ It was not until 1968, however, that the Supreme Court considered the validity of one of these laws.⁶⁰

In *Epperson v. Arkansas*, the Court found that an Arkansas statute forbidding the teaching of evolution in public schools violated the Establishment Clause.⁶¹ The law in question made it illegal to teach evolution or use any text that discussed evolution in any institution receiving public funds.⁶² Although the state court expressed no view as to whether the statutory prohibition extended beyond teaching the truth of evolution to also banning the mere objective explanation of the theory's contents, the Court held that the distinction was irrelevant.⁶³ Although the Arkansas law did not explicitly state that its purpose was to exclude any nonbiblical theories of ori-

52. *Id.*

53. *See id.*

54. *See id.*

55. For an account of the trial, see, for example, BRYAN AND DARROW AT DAYTON: THE RECORD AND DOCUMENTS OF THE "BIBLE-EVOLUTION TRIAL" (Leslie H. Allen ed., Russell & Russell 1967) (1925). Scopes's conviction was ultimately reversed on the grounds that his fine was not assessed by a jury. *Scopes v. State*, 289 S.W. 363, 367 (Tenn. 1927).

56. *See* Wexler, *supra* note 4, at 446.

57. *See Scopes*, 289 S.W. at 366–67 (finding no basis under the state constitution for invalidating the prohibition on teaching evolution on the grounds of religious establishment); *see also* Wexler, *supra* note 4, at 447 n.70 ("The court did not discuss whether the law was consistent with the U.S. Constitution.").

58. *See* Davis, *supra* note 40, at 212.

59. *See id.*

60. *See id.* The case was *Epperson v. Arkansas*, 393 U.S. 97 (1968).

61. *Epperson*, 393 U.S. at 98, 103, 109.

62. *Id.* at 98–99.

63. *Id.* at 102–03.

gin,⁶⁴ Justice Fortas explained that “[i]t is clear that fundamentalist sectarian conviction was and is the law’s reason for existence”⁶⁵ as it “selects from the body of knowledge a particular segment which it proscribes for the sole reason that it is deemed to conflict with a particular religious doctrine.”⁶⁶

The *Epperson* Court asserted that “[t]he First Amendment mandates governmental neutrality between religion and religion, and between religion and nonreligion.”⁶⁷ The prohibition is absolute and bars laws that prefer either religion or nonreligion.⁶⁸ The Court also observed that “the state has no legitimate interest in protecting any or all religions from views distasteful to them,”⁶⁹ but was careful to note that “study of religions and of the Bible from a literary and historic viewpoint, presented objectively as part of a secular program of education, need not collide with the First Amendment’s prohibition.”⁷⁰

After *Epperson* blocked the movement to ban the teaching of evolution, advocates of creationism offered a new alternative. Relying heavily on another Supreme Court decision that protected atheist students from mandatory public school prayer,⁷¹ two parents convinced the California Board of Education that they were entitled to protect their children from a scientific theory that offended their religion.⁷² This creationist victory led to the “balanced treatment” approach whereby schools taught evolution and creationism in equal proportion.⁷³ The balanced treatment approach also required schools to teach a new “*scientific creationism*” that explored “only the scientific aspects of creationism.”⁷⁴ This strategy was popular, and school boards across the country, as well as the Arkansas and Louisiana legislatures, soon required secondary schools to give balanced treatment to evolution and creationism.⁷⁵

64. *See id.* at 109.

65. *Id.* at 107–08.

66. *Id.* at 103.

67. *Id.* at 104.

68. *See id.* at 106–07.

69. *Id.* at 107 (quoting *Joseph Burstyn, Inc. v. Wilson*, 343 U.S. 495, 505 (1952)).

70. *Id.* at 106.

71. *Abington Sch. Dist. v. Schempp*, 374 U.S. 203, 205, 211–12 (1963), *rev’g Murray v. Curlett*, 179 A.2d 698 (Md. 1962).

72. *See Davis, supra* note 40, at 213.

73. *See id.* at 213–14.

74. *See id.*

75. *See id.*

Litigants immediately challenged the Arkansas statute, and a federal district court found that it violated the Establishment Clause.⁷⁶ The court held that the law failed all three prongs of the *Lemon* test.⁷⁷

The Supreme Court considered the equivalent Louisiana law in *Edwards v. Aguillard*.⁷⁸ Applying the *Lemon* test,⁷⁹ the Court held that Louisiana's balanced treatment statute (the Act) violated the Establishment Clause.⁸⁰ Although the Act purported "to protect academic freedom," the Court found that the state had not in fact designed it to further that goal.⁸¹ Since teachers already had the freedom to present alternative theories of human origin, the law did not grant them anything they did not already have.⁸² Justice Brennan expounded:

Even if "academic freedom" is read to mean "teaching all of the evidence" with respect to the origin of human beings, the Act does not further this purpose. The goal of providing a more comprehensive science curriculum is not furthered either by outlawing the teaching of evolution or by requiring the teaching of creation science.⁸³

Moreover, in light of the legislative history, Justice Brennan found a primarily religious purpose behind the law.⁸⁴ Acknowledging the "historic and contemporaneous link between the teachings of certain religious denominations and the teaching of evolution," he observed that the Court "need not be blind . . . to the legislature's preeminent religious purpose in enacting this statute."⁸⁵ The Court also cited *Stone v. Graham* for the proposition that actual legislative purpose can be derived without reference to the legislative history.⁸⁶ The *Edwards* Court ultimately concluded that "[b]ecause the primary purpose of the . . . Act is to advance a particular religious belief, the Act

76. *See id.* at 214, 223 n.58 (discussing *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982)).

77. *McLean*, 529 F. Supp. at 1272.

78. 482 U.S. 578 (1987); Davis, *supra* note 40, at 214.

79. *See Edwards*, 482 U.S. at 582–85.

80. *See id.* at 581, 596–97.

81. *See id.* at 586–89.

82. *Id.* at 587.

83. *Id.* at 586.

84. *Id.* at 591–94.

85. *Id.* at 590.

86. *See id.* at 589 (noting the Court's prior observation that "[t]he Ten Commandments are undeniably a sacred text in the Jewish and Christian faiths, and no legislative recitation of a supposed secular purpose can blind us to that fact" (quoting *Stone v. Graham*, 449 U.S. 39, 41 (1980) (footnote omitted))).

endorses religion in violation of the First Amendment.”⁸⁷

Finding that the Act violated the first prong of the *Lemon* test, it was unnecessary for the Court to consider the second or third prongs.⁸⁸ The Court was careful, however, to preserve the right of schools to present *scientific* critiques of *scientific* theories.⁸⁹ It carefully limited its holding, stating that “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.”⁹⁰

C. THE RECENT EMERGENCE OF NEW ANTIEVOLUTION MOVEMENTS

With *Edwards*, the attempt to dictate the content of human origin education ended and the heated evolution-creationism debate of the mid-1980s subsided.⁹¹ In the last decade, however, creationists have developed new alternatives, and the public debate has reemerged.⁹² As one commentator explained, “[C]reationists continue to use the specific language of the [Supreme] Court’s opinions to attempt to create constitutional ways to achieve their goals.”⁹³ Recognizing the narrow language of the Court’s decisions, creationists have focused on influencing the decisions left to state and local control.⁹⁴

1. Efforts to Attach Disclaimers to Evolution Materials

One tactic employed by creationists is to discount the validity of evolution by using disclaimers.⁹⁵ State legislatures and boards of education have drafted statements that are either printed and attached to biology textbooks, or read aloud in sci-

87. *Id.* at 593.

88. *See id.* at 585, 597.

89. *See id.* at 593–94.

90. *Id.* at 594.

91. *See* Wexler, *supra* note 4, at 451.

92. *See id.* at 451–52. Since 1991, a plethora of newspaper and journal articles, books, and websites have critiqued evolution. A few of the most notable books include MICHAEL J. BEHE, *DARWIN’S BLACK BOX: THE BIOCHEMICAL CHALLENGE TO EVOLUTION* (1996); PERCIVAL DAVIS & DEAN H. KENYON, *OF PANDAS AND PEOPLE: THE CENTRAL QUESTION OF BIOLOGICAL ORIGINS* (Charles B. Thaxton ed., 2d ed. 1993); PHILLIP E. JOHNSON, *DARWIN ON TRIAL* (2d ed. 1993); and JONATHAN WELLS, *ICONS OF EVOLUTION: SCIENCE OR MYTH?* (2000).

93. Reule, *supra* note 16, at 2580.

94. *See id.* at 2581.

95. *Id.* at 2585.

ence classes.⁹⁶ These statements vary somewhat in content, but commonly purport to “warn” students that evolution is a theory, not a fact, and that scientific disagreement exists over the validity of evolution.⁹⁷

The plaintiffs in *Freiler v. Tangipahoa Parish Board of Education*⁹⁸ challenged such an oral disclaimer. The local school board had “adopted a resolution disclaiming the endorsement of evolution” and forced all teachers in the parish to read it in class before presenting any material on evolution.⁹⁹ The disclaimer explicitly stated that evolution instruction was “not intended to influence or dissuade the Biblical version of Creation or any other concept.”¹⁰⁰ The Fifth Circuit Court of Appeals held that the disclaimer violated the Establishment Clause because it failed both the endorsement test and the effects prong of the *Lemon* test.¹⁰¹ The court found that “the disclaimer as a whole furthers a . . . [nonsecular] purpose, namely the protection and maintenance of a particular religious viewpoint.”¹⁰²

More recently, the United States District Court for the Northern District of Georgia confronted the same issue. In *Selman v. Cobb County School District*,¹⁰³ the school district had removed all material related to theories of human origin from the curricula of primary-grade classes and from classes required for high school graduation.¹⁰⁴ It had also notified students and parents of classes that contained information on the subject.¹⁰⁵ Later, when district science teachers recommended new science textbooks to the school board, the board approved the texts only on the condition that a written disclaimer be attached to their covers.¹⁰⁶ The disclaimer made no reference to religion; it simply stated that “[e]volution is a theory, not a

96. *Id.*

97. *See id.* at 2585–86.

98. 185 F.3d 337 (5th Cir. 1999).

99. *See id.* at 341.

100. *Id.* (quoting a school board resolution containing the disclaimer).

101. *See id.* at 348.

102. *Id.* at 344–45. The disclaimer ultimately passed the purpose prong of the *Lemon* test because it furthered two sincere and permissible secular objectives. *Id.* at 345–46.

103. 390 F. Supp. 2d 1286 (N.D. Ga. 2005).

104. *See id.* at 1290.

105. *See id.*

106. *See id.* at 1292.

fact.”¹⁰⁷ Parents opposed to the disclaimer brought suit to challenge it.¹⁰⁸

Without an official statement of purpose or any legislative history to analyze,¹⁰⁹ the court relied on noncontemporaneous statements of board members and other circumstantial evidence.¹¹⁰ The court accepted “[f]ostering critical thinking” as a genuine, secular purpose for the disclaimer.¹¹¹ The court distinguished *Freiler* on the basis that the disclaimer in that case specifically referred to biblical creationism as a valid theory,¹¹² and that its purpose was not the promotion of critical thinking, but rather “the protection and maintenance of a particular religious viewpoint.”¹¹³ The *Selman* court emphasized the fact that the disclaimer “does not contain a reference to religion in general, any particular religion, or any religious theory.”¹¹⁴ Moreover, because evolution was the only theory of origin taught in the district, the court did not think asking students to critically analyze it was a sham.¹¹⁵

After having recognized a sincere secular purpose for the disclaimer, however, the court found that this was not the district’s *primary* purpose.¹¹⁶ Rather, “[T]he chief purpose of the [disclaimer] is to accommodate or reduce offense to those persons who hold beliefs that might be deemed inconsistent with the scientific theory of evolution.”¹¹⁷ Because this purpose was “intertwined with religion,” the court continued the analysis under *Lemon*’s purpose prong.¹¹⁸ Quoting *Epperson*, the court recognized that the First Amendment does not allow states to require the tailoring of education to principles of any particular

107. *See id.* (quoting the disclaimer). The disclaimer simply stated: “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.” *Id.*

108. *Id.* at 1288.

109. *See id.* at 1301.

110. *See id.* at 1301–02.

111. *Id.* at 1302.

112. *See id.* (discussing *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337 (5th Cir. 1999)).

113. *Id.* (quoting *Freiler*, 185 F.3d at 344–45).

114. *Id.*

115. *See id.* at 1302–03.

116. *Id.* at 1303.

117. *Id.*

118. *Id.*

religion.¹¹⁹ But it also held that under *Freiler*, “local school boards need not turn a blind eye to the concerns of students and parents troubled by the teaching of evolution in public classrooms.”¹²⁰ The court therefore struck a balance, stating that “[t]he School Board’s decision to adopt the [disclaimer] was undisputably [sic] influenced by sectarian interests, but the Constitution forbids only a purpose to endorse or advance religion.”¹²¹ Not willing to infer such a purpose without any direct evidence, the court found that accommodation of parents was a permissible secular purpose.¹²² The disclaimer, therefore, passed the purpose prong of the *Lemon* test.¹²³

The constitutional fault of the disclaimer, however, arose under the effects prong of the *Lemon* test. The court held that the disclaimer violated this prong¹²⁴ because “an informed, reasonable observer would interpret the [disclaimer] to convey a message of endorsement of religion.”¹²⁵ It also held that the disclaimer violated the endorsement test¹²⁶ because it “sends a message to those who oppose evolution for religious reasons that they are favored members of the political community, while [also sending] a message to those who believe in evolution that they are political outsiders.”¹²⁷ Additionally, the court found that the disclaimer had the dual effects of “implicitly bolstering alternative religious theories of origin by suggesting that evolution is a problematic theory”¹²⁸ and “undermining evolution education to the benefit of those . . . citizens who would prefer that students maintain their religious beliefs regarding the origin of life.”¹²⁹ The court pointed to these effects as further support of the disclaimer’s constitutional failure under the effects prong of the *Lemon* test and also under the endorsement test. In justifying its conclusions, the court drew heavily on history and the common-sense conclusions that an

119. *Id.* (citing *Epperson v. Arkansas*, 393 U.S. 97, 106 (1968)).

120. *Id.* at 1304 (quoting *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337, 346 (5th Cir. 1999)).

121. *Id.*

122. *See id.* at 1304–05.

123. *Id.* at 1305.

124. *Id.* at 1312.

125. *Id.* at 1306.

126. *Id.* at 1312.

127. *Id.* at 1306.

128. *Id.* at 1308.

129. *Id.* at 1310.

“informed, reasonable observer” would have reached under the circumstances.¹³⁰

The critical fault of the disclaimer was its statement that “[e]volution is a theory, not a fact, concerning the origin of living things.”¹³¹ According to the court, the problem was not the statement’s veracity, but rather that it did not acknowledge the ocean of public debate surrounding the issue.¹³² Considering the debate’s wider social history and its impact on public education, the court felt that the language clearly revealed the board’s true stance on the issue: it sided with creationists.¹³³ The court stated that the question of whether evolution is a theory or a fact “is certainly a loaded issue with religious undertones.”¹³⁴ In so holding, the court evidenced a judicial willingness to examine social facts and secondary sources to analyze the effects of a disclaimer.¹³⁵ That the board did not have a religious purpose in adopting the disclaimer had no bearing under the effects prong of the *Lemon* test.¹³⁶

2. Efforts to Introduce the Theory of Intelligent Design

Several states have enacted laws requiring that public schools present evolution as theory, not fact.¹³⁷ This has opened the door to the Intelligent Design movement.¹³⁸ Proponents of Intelligent Design urge teachers to concentrate on the shortcomings of evolution and question its conclusions.¹³⁹ The movement’s mantra is “teach the controversy.”¹⁴⁰ Although Intelligent Design claims that many features of biological life are so complex that they must have originated under the auspices of an intelligent designer, the theory does not in any way reference religion or allude to the identity or characteristics of the

130. *See id.* at 1306–07.

131. *Id.* at 1307 (alteration in original) (quoting the disclaimer).

132. *See id.*

133. *See id.*

134. *Id.*

135. *See id.* at 1308.

136. *See id.*

137. Reule, *supra* note 16, at 2586 (naming North Carolina and Ohio as examples).

138. *See id.* at 2586–87.

139. *Id.* at 2587.

140. *See id.* (citing DAVID K. DEWOLF ET AL., INTELLIGENT DESIGN IN PUBLIC SCHOOL SCIENCE CURRICULA: A LEGAL GUIDEBOOK 23 (1999)).

designer.¹⁴¹ The theory simply maintains that “intelligent agency . . . has more explanatory power in accounting for . . . biological entities . . . than [evolution].”¹⁴²

In the fall of 2004, the school board of Dover, Pennsylvania, “instructed its ninth-grade biology teachers to tell students the theory of evolution is an incomplete one, and that intelligent design . . . is an alternative argument to evolution.”¹⁴³ Although evolution remained a part of the district’s curricula and standardized tests, parents in the district quickly brought suit in federal district court to challenge the disclaimer.¹⁴⁴ The resulting case, *Kitzmiller v. Dover Area School District*,¹⁴⁵ was the first constitutional test of Intelligent Design.¹⁴⁶

The district court in *Kitzmiller* applied both the *Lemon* test and the endorsement test in evaluating the constitutionality of the disclaimer.¹⁴⁷ Before considering the perceptions of both student and adult objective observers,¹⁴⁸ the court examined

141. *See id.*

142. Francis J. Beckwith, *Public Education, Religious Establishment, and the Challenge of Intelligent Design*, 17 NOTRE DAME J.L. ETHICS & PUB. POL’Y 461, 462 (2003).

143. Bill Toland, *Getting Their Day in Court: ‘Intelligent Design’ Supporters State Case*, PITTSBURGH POST-GAZETTE, Sept. 25, 2005, at A1. The full disclaimer reads:

The Pennsylvania Academic Standards require students to learn about Darwin’s Theory of Evolution and eventually to take a standardized test of which evolution is a part.

Because Darwin’s Theory is a theory, it continues to be tested as new evidence is discovered. The Theory is not a fact. Gaps in the Theory exist for which there is no evidence. A theory is defined as a well-tested explanation that unifies a broad range of observations.

Intelligent Design is an explanation of the origin of life that differs from Darwin’s view. The reference book, *Of Pandas and People*, is available for students who might be interested in gaining an understanding of what Intelligent Design actually involves.

With respect to any theory, students are encouraged to keep an open mind. The school leaves the discussion of the Origins of Life to individual students and their families. As a Standards-driven district, class instruction focuses upon preparing students to achieve proficiency on Standards-based assessments.

Kitzmiller v. Dover Area Sch. Dist., 400 F. Supp. 2d 707, 708–09 (M.D. Pa. 2005).

144. *See Kitzmiller*, 400 F. Supp. 2d at 708–10.

145. 400 F. Supp. 2d 707.

146. *See Toland*, *supra* note 143.

147. *Kitzmiller*, 400 F. Supp. 2d at 714–46 (applying the endorsement test); *id.* at 746–64 (applying the *Lemon* test).

148. *Id.* at 723–29 (discussing the perceptions of an objective student); *id.* at 729–35 (discussing the perceptions of an objective adult).

the history of the Intelligent Design movement.¹⁴⁹ The court emphatically found that Intelligent Design is a new form of creationism¹⁵⁰ and that the designer it proposes is the God of Christianity.¹⁵¹ It then derided the disclaimer for singling out evolution as a problematic theory and undermining it in furtherance of the school board's favored religious alternative.¹⁵² Finding that the religious nature of Intelligent Design is evident both "because [Intelligent Design] involves a supernatural designer"¹⁵³ and because of the theory's "history and context,"¹⁵⁴ the court held that "the religious nature of [Intelligent Design] would be readily apparent to an objective observer, adult or child."¹⁵⁵ It therefore found violations of the endorsement test¹⁵⁶ and both the purpose and effects prongs of the *Lemon* test.¹⁵⁷

The *Kitzmiller* court also held that Intelligent Design is not science.¹⁵⁸ The scientific observations to which its proponents point for support are not positive arguments for Intelligent Design, but rather negative arguments against evolution.¹⁵⁹ Further, the court noted that evolution is not antithetical to religion or a belief in God.¹⁶⁰ Finally, the court rejected the defendants' proposed justification of advancing critical thinking.¹⁶¹

149. *Id.* at 716–23.

150. *Id.* at 721; *see also id.* at 718 (recounting expert testimony from a theologian characterizing Intelligent Design as "not a new scientific argument, but . . . rather an old religious argument for the existence of God").

151. *Id.* at 719.

152. *See id.* at 728–29.

153. *Id.* at 720.

154. *Id.* at 721 (quoting *Child Evangelism Fellowship of N.J. Inc. v. Stafford Twp. Sch. Dist.*, 386 F.3d 514, 531 (3d Cir. 2004)).

155. *See id.* at 718.

156. *Id.* at 734.

157. *Id.* at 763 (holding that the school board's purpose was to promote religion, which violated the Establishment Clause); *id.* at 764 (holding that the effect of the school board's action was to impose a religious view in violation of the Establishment Clause). The court did not address the entanglement prong of the *Lemon* test because the plaintiffs had not alleged "excessive entanglement." *See id.* at 746 & n.19.

158. *Id.* at 735; *see also id.* at 735–46 (discussing in detail the issue of whether Intelligent Design constitutes a science).

159. *See id.* at 738–43.

160. *Id.* at 765.

161. *Id.* at 762–63.

After more than eighty years of public and legal debate over the proper content of public school human origin education, neither side has tired. As litigants prepare to argue over the newest education policies, courts will have to look to the lessons and precedents of the past century for the proper rules by which to adjudicate the constitutional claims that are sure to arise.

II. AN ESTABLISHMENT CLAUSE ANALYSIS OF INTELLIGENT DESIGN EDUCATION

Under either the *Lemon* test or the endorsement test, teaching Intelligent Design in public school science classes violates the Establishment Clause. The theory's historical links to creationism and inherently religious character necessarily mean that teaching it in public school science classes has an impermissible effect and conveys an impermissible message of endorsement of religion. Even the most common justifications offered for teaching Intelligent Design do not cure this basic constitutional violation.

A. TEACHING INTELLIGENT DESIGN FAILS THE *LEMON* TEST

As discussed in Part I, the federal judiciary has applied the *Lemon* test to analyze human origin education under the Establishment Clause. Although it is conceivable that an attempt to teach Intelligent Design could pass muster under the purpose prong of this test, all such attempts fail the effects prong.

1. Teaching Intelligent Design May Pass the Purpose Prong of the *Lemon* Test

Under the purpose prong of the *Lemon* test, "it is appropriate to ask 'whether [the] government's actual purpose is to endorse or disapprove of religion.'"¹⁶² Any proffered purpose cannot be a sham.¹⁶³ When evaluating Intelligent Design generally, no case-specific factual background exists. It therefore is uncertain whether a particular case would violate the purpose prong.

Since the Supreme Court stated in *Edwards* that it "need not be blind . . . to [a] legislature's preeminent religious pur-

162. *Wallace v. Jaffree*, 472 U.S. 38, 56 (1985) (quoting *Lynch v. Donnelly*, 465 U.S. 668, 690 (1984) (O'Connor, J., concurring)).

163. *Edwards v. Aguillard*, 482 U.S. 578, 586–87 (1987).

pose,”¹⁶⁴ lower courts have been willing to look behind the government’s proffered purpose and investigate the facts and legislative history involved in a particular case to determine actual motivation. The court in *Selman*,¹⁶⁵ for example, faced a school board decision without an explicit statement of purpose.¹⁶⁶ Although that case dealt not with teaching Intelligent Design, but rather with using a disclaimer,¹⁶⁷ the differences are not material to a purpose inquiry under the *Lemon* test. The *Selman* court found that the school board’s proffered purpose of asking students to critically analyze the theory of evolution, although not its main purpose, was secular and sincere.¹⁶⁸ The disclaimer thus passed muster under the purpose prong.¹⁶⁹

Likewise, a school board could add Intelligent Design to its curriculum without violating the purpose prong of the *Lemon* test. *Freiler v. Tangipahoa Parish Board of Education*, in which the court found a religious purpose for a disclaimer,¹⁷⁰ can be distinguished—just as it was in *Selman*¹⁷¹—because Intelligent Design does not explicitly reference religion. In addition, a hypothetical school board could offer the same purposes that the *Selman* court found secular and genuine: encouraging students to critically analyze evolution by considering an alternative theory and accommodating the concerns of parents.¹⁷² In any actual case, a court may be able to derive a religious purpose by examining governmental action in light of the “historic and contemporaneous link between the teachings of certain religious denominations and the teaching of evolution”¹⁷³ or from circumstantial or direct evidence presented in the context of the particular case. As *Selman* shows, however, the possibility exists for a school board to avoid this problem by advancing clearly secular purposes.

164. *Id.* at 590.

165. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286 (N.D. Ga. 2005).

166. *See id.* at 1301.

167. *See id.* at 1288.

168. *Id.* at 1302–03.

169. *See id.* at 1305.

170. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337, 344–45 (5th Cir. 1999).

171. *See* 390 F. Supp. 2d at 1302.

172. *Id.* at 1305.

173. *Edwards v. Aguillard*, 482 U.S. 578, 590 (1987).

2. Teaching Intelligent Design Always Fails the Effects Prong of the *Lemon* Test

The effects prong of the *Lemon* test “asks whether the [governmental action] at issue in fact conveys a message of endorsement or disapproval of religion to an informed, reasonable observer.”¹⁷⁴ In evaluating the teaching of Intelligent Design under this prong, the factual background of a particular case need not be known because the character and historical pedigree of Intelligent Design alone result in impermissible effects.

a. Intelligent Design’s History Sends an Impermissible Message

Given the “historic and contemporaneous link between [religion and opposition to evolution]” that the Supreme Court found in *Edwards*,¹⁷⁵ “many observers would understand [teaching Intelligent Design] as primarily promoting the religious belief that an intelligent designer created the universe, rather than as promoting any reasonable secular interest.”¹⁷⁶ In the words of one scholar, “[T]he [Intelligent Design] movement is infected by the same historic link between religion and the opposition to evolution.”¹⁷⁷

The long-standing debate between evolutionists and proponents of religious theories of human origin is well known.¹⁷⁸ This historical background indicates to the informed, reasonable observer that scientific advancement is not the lone motivation behind the Intelligent Design movement.¹⁷⁹ Recognizing that “[Intelligent Design] represents a new line of attack against evolutionary biology,” one commentator noted that “it is but the latest chapter in a long tradition of creationist thought.”¹⁸⁰ The *Selman* court also observed that whether evo-

174. *Selman*, 390 F. Supp. 2d at 1305.

175. 482 U.S. at 590.

176. Jay D. Wexler, *Darwin, Design, and Disestablishment: Teaching the Evolution Controversy in Public Schools*, 56 VAND. L. REV. 751, 828 (2003).

177. *Id.* (comparing Intelligent Design to the creationism struck down by the Court in *Edwards*, 482 U.S. at 593).

178. See, e.g., *Selman*, 390 F. Supp. 2d at 1306 (“[C]itizens around the country have been aware of the historical debate between evolution and religion . . .”).

179. Reule, *supra* note 16, at 2603 (“[T]he historical basis and religious context of the Intelligent Design movement indicates [sic] that it encompasses more than its ‘scientific’ theories.”).

180. Wexler, *supra* note 4, at 444.

lution is a theory or a fact is “a loaded issue with religious undertones.”¹⁸¹ It then found that the disclaimer at issue in the case violated the effects prong of the *Lemon* test because it showed that the board had sided with proponents of religious theories over proponents of evolution.¹⁸²

The *Kitzmiller* court similarly held that informed, reasonable observers would be aware of the historical evolution-creationism debate and would recognize that Intelligent Design embodies a religious strategy developed from earlier forms of creationism.¹⁸³ That the term “Intelligent Design” originated shortly after “creationism” was condemned by *Edwards*¹⁸⁴ even led the *Kitzmiller* court to describe Intelligent Design as “creationism re-labeled.”¹⁸⁵ This historic link affects observers’ perceptions of teaching Intelligent Design in public schools because it signifies that the government has “sided with the proponents of religious theories of origin,”¹⁸⁶ despite any secular purpose behind teaching Intelligent Design. An informed, reasonable observer would conclude that so doing effectively endorses religion.¹⁸⁷

Like the *Kitzmiller* court, the *Selman* court was willing to examine social facts and secondary sources to inform its understanding of history.¹⁸⁸ Commentators have noted the similarity between Intelligent Design and creationism,¹⁸⁹ that “Intelligent Design’s leaders and proponents are religious right activists,”

181. *Selman*, 390 F. Supp. 2d at 1307. Because Intelligent Design challenges evolution’s basic conclusions, it requires that evolution be considered a theory, not a fact. *See, e.g.*, Beckwith, *supra* note 142, at 462 (“The main thrust of . . . Intelligent Design . . . is that intelligent agency, as an aspect of scientific theory-making, has more explanatory power . . . than [evolution.]”); *cf. Selman*, 390 F. Supp. 2d at 1308 (stating that classifying evolution as a theory and not a fact “has the effect of implicitly bolstering alternative religious theories of origin”).

182. *See Selman*, 390 F. Supp. 2d at 1307, 1312.

183. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 716–23 (M.D. Pa. 2005).

184. *See id.* at 721.

185. *Id.* at 722.

186. *Selman*, 390 F. Supp. 2d at 1307; *see also Kitzmiller*, 400 F. Supp. 2d at 747 (stating that the historical context of Intelligent Design contributed to the conclusion that the school board “consciously chose to change [the district]’s biology curriculum to advance religion”).

187. *See Selman*, 390 F. Supp. 2d at 1307 (stating that the school board appeared to have “take[n] a position on questions of religious belief” (quoting *County of Allegheny v. ACLU*, 492 U.S. 573, 593–94 (1989))).

188. *See id.* at 1308.

189. *See, e.g.*, Wexler, *supra* note 4, at 460.

and that “prominent [Intelligent Design] leaders . . . have made public statements regarding the religious bias that is driving the movement.”¹⁹⁰ These sources further show the connection between Intelligent Design and religion and support the conclusion that a reasonable, objective observer would view the teaching of Intelligent Design in public schools as an endorsement of religion.

It has been argued that this historical link, even if admitted, should not cause an Establishment Clause violation.¹⁹¹ As one commentator has suggested, “[I]f an historical connection of any sort, no matter how distant or loose, is sufficient to prohibit the teaching of a subject, then perhaps astronomy and chemistry ought to be prohibited from public school classrooms since they have their historical origin in the religiously-orientated practices of astrology and alchemy.”¹⁹² Ironically, these subjects provide perfect examples of practices that successfully shed their historical link to religion. The modern practices of astronomy and chemistry no longer reflect the religious tenets of astrology or alchemy.¹⁹³ Modern astronomy specifically condemns the central tenets of astrology,¹⁹⁴ and modern chemistry specifically rejects the central tenets of alchemy.¹⁹⁵ The inferences of Intelligent Design, on the other hand, continue to “support,

190. Reule, *supra* note 16, at 2603.

191. See Beckwith, *supra* note 142, at 497–98.

192. *Id.* at 498.

193. See, e.g., LANSANA KEITA, THE HUMAN PROJECT AND THE TEMPTATIONS OF SCIENCE 37 (1998) (noting that “the natural and biological science communities remain relatively unimpressed” with efforts to equate alchemy and astrology with chemistry and astronomy, respectively).

194. See, e.g., MICHAEL A. COVINGTON, CELESTIAL OBJECTS FOR MODERN TELESCOPES 86 (2002) (“Modern astronomers reject astrology . . .”). Compare MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 76 (11th ed. 2003) (defining “astronomy” as “the study of objects and matter outside the earth’s atmosphere and of their physical and chemical properties”), with *id.* (defining “astrology” as “the divination of the supposed influences of the stars and planets on human affairs and terrestrial events by their positions and aspects”).

195. See, e.g., MAURICE P. CROSLAND, HISTORICAL STUDIES IN THE LANGUAGE OF CHEMISTRY xiv (Dover Publ’ns, Inc. 1978) (1962) (“[T]he spirit of alchemy is furthest removed from that of modern chemistry.”). Compare MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY, *supra* note 194, at 29 (defining “alchemy” as “a medieval chemical science and speculative philosophy aiming to achieve the transmutation of the base metals into gold, the discovery of a universal cure for disease, and the discovery of a means of indefinitely prolonging life”), with *id.* at 212 (defining “chemistry” as “a science that deals with the composition, structure, and properties of substances and with the transformations that they undergo”).

and are consistent with, . . . some belief in a higher intelligence or deity.”¹⁹⁶ In other words, Intelligent Design has not successfully shed its historical link to religion because it has not renounced (or at least come to ignore) those tenets which bind the theory to particular religious beliefs. The historical debate surrounding theories of human origin is, therefore, still germane to an analysis of Intelligent Design because it is common to both that theory and the creationism that the Supreme Court has previously condemned.¹⁹⁷

b. Refusing to Teach Intelligent Design Does Not Impermissibly Endorse Nonreligion

One could argue that refusal to teach Intelligent Design is an endorsement of the evolution side of the evolution-creationism debate. The reasonable, objective observer would ostensibly perceive the refusal to teach Intelligent Design as a sign that the government has joined with evolutionists. This, the argument would conclude, conveys an impermissible message of endorsement of nonreligion.¹⁹⁸

This argument is a misapplication of the debate’s history. The nexus of Intelligent Design and the history of the human origin debate is the postulation of a designer’s existence, deity or not. The previous section argued that if Intelligent Design did not postulate the existence of such a being, there would be no historical problem. The converse of this assertion is that a theory which postulates the nonexistence of such a being shares Intelligent Design’s impermissible nexus with the historical debate, although such a theory shows the government endorsing the opposite side.

Refusing to acknowledge a designer’s existence does not, however, necessarily result in an assertion of a designer’s nonexistence. Another choice remains: to avoid supporting either position. In other words, refusing to teach Intelligent Design does not require teaching some other theory which impermissibly asserts the nonexistence of a designer. The choice remains

196. Beckwith, *supra* note 142, at 517 (emphasis omitted).

197. See *Edwards v. Aguillard*, 482 U.S. 578, 592 (1987) (effectively banning the teaching of creationism for “embod[ying] the religious belief that a supernatural creator was responsible for the creation of humankind”).

198. Francis Beckwith makes a similar argument, hypothesizing that teaching evolution “gives the impression that a certain disputed, irreligious, point of view is favored.” Beckwith, *supra* note 142, at 502.

to teach a theory that postulates neither the existence *nor* non-existence of a designer.

Evolution is such a theory. It avoids the nexus with the religious debate by completely avoiding the subject of a designer or creator.¹⁹⁹ While Intelligent Design postulates the existence of an intelligent designer, evolution does *not* postulate the lack of such an intelligence.²⁰⁰ In fact, proponents of both evolution and Intelligent Design have stated that evolution is perfectly consistent with a belief in God, a different intelligent creating force, or absolute atheism.²⁰¹ Since evolution thus avoids any postulations whatsoever regarding the existence of a creator, a policy of teaching evolution but not Intelligent Design conveys to the reasonable observer neither a message of endorsement nor disapproval of religion. Such a policy therefore presents no Establishment Clause problems.

c. Intelligent Design's Nature Conveys an Impermissible Message

Even if Intelligent Design did not have the historical problems discussed above, because of the theory's nature, teaching it in public schools would still violate the effects prong of the *Lemon* test. Intelligent Design's dependence on the existence of a designer renders the theory inherently religious.²⁰² Independent of any violations based on history, this characteristic conveys an impermissible message of endorsement of religion to the reasonable, objective observer whenever Intelligent Design is taught in public schools.²⁰³

199. See, e.g., JOHN F. HAUGHT, RESPONSES TO 101 QUESTIONS ON GOD AND EVOLUTION 61 (2001) (explaining that evolution makes no attempt to "explain why the universe is 'set up' in the first place as such a fertile blending of contingent happenings, invariant laws and temporal duration;" that "[d]iscerning *in depth* why the universe is put together this way is the task of a theology of evolution;" and that "[t]heology will understand the . . . evolutionary ingredients as grounded in the reality of a promising God").

200. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 765 (M.D. Pa. 2005) (stating that evolution neither "conflicts with, nor does it deny, the existence of a divine creator").

201. See David Van Biema, *Can You Believe in God and Evolution?*, TIME, Aug. 15, 2005, at 34, 34–35 (including in a forum on the topic of the evolution-creationism debate the statements of Francis Collins and Steven Pinker, supporters of evolution, and Michael Behe, a supporter of Intelligent Design).

202. See *Kitzmiller*, 400 F. Supp. 2d at 720 ("[Intelligent Design]'s religious nature is evident because it involves a supernatural designer.").

203. See *id.* at 718–21.

It is true that governmental action does not violate the Establishment Clause simply because it “happens to coincide or harmonize with the tenets of some or all religions.”²⁰⁴ Some thus argue that “[a]s a theory that makes no claims regarding the nature, character or purposes of the designing intelligence that it detects, [Intelligent Design] cannot logically have a primary effect of advancing religion” and furthermore that “[a]dvancement of religion as a result of [Intelligent Design] can at best be a secondary effect.”²⁰⁵ Moreover, federal court precedent exists for the proposition that a secondary effect of advancing religion is “constitutionally permissible.”²⁰⁶

This argument is based on the proposition that Intelligent Design is not religion. However, no Intelligent Design proponent has ever suggested any “serious alternative to God as the designer.”²⁰⁷ In fact, the *Kitzmiller* court explicitly found that the designer postulated by Intelligent Design is the Christian God and held that Intelligent Design is religion and not science.²⁰⁸

Whether or not Intelligent Design is religion, the theory distinguishes not between “natural causes versus supernatural causes, but rather intelligent causes versus undirected causes.”²⁰⁹ Intelligent Design “claims only to be able to detect intelligent causes, it does not speculate as to the nature of that intelligent cause.”²¹⁰

But if the existence of such an intelligent cause is admitted, its particular nature only serves to distinguish between religions. The existence of any intelligent cause that created and designed life is a religious view. One scholar has observed that “[l]anguage from several Supreme Court decisions strongly supports the view . . . that belief in a creator is a religious be-

204. *McGowan v. Maryland*, 366 U.S. 420, 442 (1961).

205. Stephen L. Marshall, Note, *When May a State Require Teaching Alternatives to the Theory of Evolution? Intelligent Design as a Test Case*, 90 KY. L.J. 743, 784 (2002).

206. *Id.* (citing *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982)); see *McLean*, 529 F. Supp. at 1272 (observing that “[s]econdary effects which advance religion are not constitutionally fatal” but concluding that a state law requiring balanced treatment of creationism and evolution had as its “only effect” the “advancement of religion”).

207. *Kitzmiller*, 400 F. Supp. 2d at 718–19.

208. *Id.* at 718–19, 745–46.

209. Marshall, *supra* note 205, at 773.

210. *Id.* at 773–74.

lief.”²¹¹ Of course, the *Kitzmiller* court’s findings aside, Intelligent Design purposefully avoids using the term “creator.”²¹² But the intelligent agent behind the theory “has the ability to coordinate the design requirements of multifunctional adaptational packages”²¹³ and to “create”²¹⁴ life where none existed before. Establishment Clause analysis looks past this sort of formalism.²¹⁵ This description defines a creator and is broad enough to encompass the creator behind the theory that the *Edwards* Court condemned for espousing a religious belief.²¹⁶ In the end, therefore, the distinctions between Intelligent Design as science or religion, and the designer of Intelligent Design as natural or supernatural, are merely semantic. They do not affect the conclusion, comparatively drawn in *Edwards* and *Kitzmiller*, that generally acknowledging the *existence* of an intelligent designer or creator impermissibly acknowledges a religious belief.²¹⁷

Generally acknowledging an intelligent designer conveys exactly the kind of message of religious endorsement that violates the effects prong of the *Lemon* test. The Court has long held the Establishment Clause to preclude not only the favoring of one religion over another, but also the general favoring of religion over nonreligion.²¹⁸ Teaching Intelligent Design vio-

211. Wexler, *supra* note 176, at 818.

212. See, e.g., DAVIS & KENYON, *supra* note 92, at 14 (using “intelligent agent”); *id.* at 71 (using “consummate engineer”); *id.* at 72 (using “intelligent designer”).

213. *Id.* at 72.

214. See *id.* at 14 (referring to “creating a new organism” (emphasis added)).

215. Wexler, *supra* note 4, at 460 (citing *Lee v. Weisman*, 505 U.S. 577, 595 (1992)); see *Lee*, 505 U.S. at 595 (rejecting the argument that prayer in the context of a public high school graduation ceremony does not violate the Establishment Clause because attendance is not mandatory on the grounds that “say[ing] a teenage student has a real choice not to attend her high school graduation is formalistic,” and “[l]aw reaches past formalism”).

216. Wexler, *supra* note 4, at 460 (citing *Edwards v. Aguillard*, 482 U.S. 578, 591–92 (1987)); see *Edwards*, 482 U.S. at 591–92 (finding fault with a state law that forbade the teaching of evolution unless creationism was also presented on the grounds that the law “embodie[d] the religious belief that a supernatural creator was responsible for the creation of humankind”).

217. See Wexler, *supra* note 4, at 460; see also *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 720 (M.D. Pa. 2005) (“[Intelligent Design]’s [impermissible] religious nature is evident because it involves a supernatural designer.”).

218. See, e.g., *Bd. of Educ. v. Grumet*, 512 U.S. 687, 696 (1994) (“A proper respect for both the Free Exercise and the Establishment Clauses compels the

lates the effects prong for the same reason that the school board policy in *Selman* violated it: “[b]y denigrating evolution, the [government] appears to be endorsing the well-known prevailing alternative theory, creationism or variations thereof.”²¹⁹

The book *Of Pandas and People*,²²⁰ which was at issue in *Kitzmiller*,²²¹ provides an apt example. This biology textbook presents the theory of Intelligent Design and is an authoritative text on the subject.²²² It does not mention any biblical text or stories, but does state that “life, like a manufactured object, is the result of intelligent shaping of matter.”²²³ This statement is the equivalent of creationism; that the authors of the book have substituted words does not change the content of the theory.²²⁴ As one commentator remarked, “One need not look far beyond the absence of these terms to discover a supreme, supernatural being who designed, coordinated, and created all of nature according to a master plan.”²²⁵

d. Evolution’s Nature Does Not Convey an Impermissible Message

Some commentators have criticized evolution on the basis that “[i]f a point of view is religious because its plausibility lends support to a religion or a religious point of view, then we would have to conclude that evolution is as much a religion as [Intelligent Design]” because “it lends support to some nontheistic and anti-religious perspectives recognized as religions by the Court.”²²⁶ This argument mischaracterizes the definition of evolutionary theory. As elaborated above, evolution does not

State to pursue a course of “neutrality” toward religion,’ favoring neither one religion over others nor religious adherents collectively over nonadherents.” (citation omitted) (quoting *Comm. for Pub. Educ. & Religious Liberty v. Nyquist*, 413 U.S. 756, 792–93 (1973)); *Everson v. Bd. of Educ.*, 330 U.S. 1, 15 (1947) (“The ‘establishment of religion’ clause of the First Amendment means at least this: [n]either a state nor the Federal Government . . . can pass laws which aid one religion, aid all religions, or prefer one religion over another.”).

219. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1309 (N.D. Ga. 2005) (emphasis added).

220. DAVIS & KENYON, *supra* note 92.

221. 400 F. Supp. 2d *passim*.

222. See Wexler, *supra* note 4, at 440–44, 452–54 (describing the book and its history and distribution).

223. DAVIS & KENYON, *supra* note 92, at vii.

224. Wexler, *supra* note 4, at 459–60.

225. *Id.* at 460.

226. Beckwith, *supra* note 142, at 489.

have the problem of endorsing atheism because it avoids the existence of a designer or creator altogether. Whereas Intelligent Design postulates the existence of an intelligent designer or creator, evolution does *not* postulate the lack of such an intelligence.²²⁷ Evolution therefore lends no more support to nonreligion than it does to religion.²²⁸

Because of its historical pedigree and promotion of an inherently religious idea, teaching Intelligent Design “conveys a message of endorsement . . . of religion to an informed, reasonable observer.”²²⁹ Therefore, independent of any permissible secular purpose, and regardless of the specific factual context, teaching Intelligent Design in public school science classes always fails the effects prong of the *Lemon* test and constitutes an Establishment Clause violation.

B. TEACHING INTELLIGENT DESIGN FAILS THE ENDORSEMENT TEST

Although teaching Intelligent Design violates the Establishment Clause under the *Lemon* test, this test has fallen slightly from its once ubiquitous status and been criticized by some Supreme Court Justices.²³⁰ The most likely substitute, the endorsement test, was not applied in either *Epperson* or *Edwards*, but the Court decided these precedents before this test was first adopted by a majority of the Court.²³¹

Many commentators have applied the endorsement test in the context of human origin education.²³² Additionally, in re-

227. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 765 (M.D. Pa. 2005) (“[Evolution] in no way conflicts with, nor does it deny, the existence of a divine creator.”).

228. *Cf. id.*

229. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1305 (N.D. Ga. 2005) (citing *Wallace v. Jaffree*, 472 U.S. 38, 56 n.42 (1985); *Glassroth v. Moore*, 335 F.3d 1282, 1297 (11th Cir. 2003); *Bown v. Gwinnett County Sch. Dist.*, 112 F.3d 1464, 1472 (11th Cir. 1997)).

230. *E.g.*, *Wexler*, *supra* note 4, at 455 & n.152; *see also, e.g.*, *Tangipahoa Parish Bd. of Educ. v. Freiler*, 530 U.S. 1251, 1253 (2000) (Scalia, J., dissenting) (reiterating his disapproval of the *Lemon* test), *denying cert. to* 185 F.3d 337 (5th Cir. 1999).

231. *Kitzmiller*, 400 F. Supp. 2d at 713–14 (noting that the Supreme Court and the Third Circuit Court of Appeals have applied the endorsement test to many Establishment Clause cases involving religion in public schools, and also observing that *Epperson*, 393 U.S. 97 (1968), and *Edwards*, 482 U.S. 578 (1987), predate the Court’s adoption of the endorsement test in *County of Allegheny*, 492 U.S. 573, 592–94 (1989)).

232. *See, e.g.*, *Wexler*, *supra* note 176, at 827–28; *Reule*, *supra* note 16, at

solving a recent challenge to Intelligent Design education, the *Kitzmiller* court stated that “based upon Supreme Court precedent, the endorsement test must be utilized.”²³³

Conceptually, the analysis under the endorsement test largely overlaps with the effects inquiry of the *Lemon* test.²³⁴ So it is not surprising that much of the reasoning under the latter applies under the former. The endorsement test evaluates a particular practice in light of both the subjective intent of its proponents and the objective perceptions of observers to determine whether it endorses religion.²³⁵ The specific question in the present context is whether objective student or adult observers would perceive the teaching of Intelligent Design as “official school support’ [of religion].”²³⁶ This practice violates the Establishment Clause if it “sends a message to nonadherents that they are outsiders . . . and an accompanying message to adherents that they are insiders.”²³⁷ Courts have instructed that determining the message so communicated is not a question of fact but one of law that is illuminated by “judicial interpretation of social facts.”²³⁸

Without a case-specific factual background, it is impossible to evaluate the subjective intent of governmental actors. Nevertheless, both the history and character of Intelligent Design show that teaching it in public schools fails the endorsement test.

1. Intelligent Design’s History Violates the Endorsement Test

Justice O’Connor stated that “the ‘history and ubiquity’ of a practice is relevant [under the endorsement test] because it provides part of the context in which a reasonable observer evaluates whether a challenged governmental practice conveys a message of endorsement of religion.”²³⁹ Given the inescapable

2603–04; Wexler, *supra* note 4, at 463–66.

233. *Kitzmiller*, 400 F. Supp. 2d at 713.

234. *E.g.*, Reule, *supra* note 16, at 2567.

235. *See Lynch v. Donnelly*, 465 U.S. 668, 690 (1984) (O’Connor, J., concurring).

236. *See Kitzmiller*, 400 F. Supp. 2d at 715 (quoting *Verbena United Methodist Church v. Chilton County Bd. of Educ.*, 765 F. Supp. 704, 711 (M.D. Ala. 1991) (quoting *Bd. of Educ. v. Mergens*, 496 U.S. 226, 249 (1990))).

237. *Lynch*, 465 U.S. at 688 (O’Connor, J., concurring).

238. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1306 (N.D. Ga. 2005) (quoting *Lynch*, 465 U.S. at 693–94 (O’Connor, J., concurring)).

239. *County of Allegheny v. ACLU*, 492 U.S. 573, 630 (1989) (O’Connor, J., concurring in part and concurring in the judgment).

history of the evolution-creationism debate as discussed above, the objective observer would conclude that the teaching of Intelligent Design has the effect of furthering religious views and impermissibly conveying a message of endorsement of religion.

In evaluating a disclaimer challenging the validity of evolution, the *Selman* court emphasized the history of the human origin debate: it found that an objective observer would perceive the school board as endorsing the views of Christian fundamentalists and creationists that evolution is a problematic and inadequately supported theory.²⁴⁰ The court observed that “[m]embers of certain religious denominations historically have opposed the teaching of evolution in public schools.”²⁴¹ In evaluating a similar disclaimer, the *Kitzmiller* court held that a reasonable observer, aware of the history of the human origin debate, would presumably know that Intelligent Design is a form of creationism.²⁴² The court then held that a reasonable observer would perceive the disclaimer at issue in the case as impermissibly inserting a religious concept into public school education.²⁴³

The conclusions of the *Selman* and *Kitzmiller* courts apply with equal force to the introduction of Intelligent Design in public school science classes. Any attempt to teach Intelligent Design in this context is impermissible because it “mirrors the viewpoint of . . . religiously-motivated citizens”²⁴⁴ by introducing into human origin education the existence of a designer or creator.

As James Madison aptly stated in a criticism directed towards a Virginia tax that required donations to religion, “[this governmental action] is itself a signal of persecution” in that “[i]t degrades from the equal rank of Citizens all those whose opinions in Religion do not bend to those of the Legislative authority.”²⁴⁵ Understood in light of the almost-century-long effort to unseat evolution as the primary theory of human origin taught in public schools, teaching Intelligent Design would

240. See *Selman*, 390 F. Supp. 2d at 1306–07.

241. *Id.* at 1306.

242. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 721 (M.D. Pa. 2005).

243. *Id.* at 724.

244. *Selman*, 390 F. Supp. 2d at 1307.

245. JAMES MADISON, MEMORIAL AND REMONSTRANCE AGAINST RELIGIOUS ASSESSMENTS (1785), reprinted in 5 THE FOUNDERS’ CONSTITUTION 82, 83 (Philip B. Kurland & Ralph Lerner eds., 1987).

have the same effect: conveying a message of inclusion to adherents and a message of exclusion to nonadherents.²⁴⁶ Such a result violates the endorsement test.²⁴⁷

2. Intelligent Design's Nature Violates the Endorsement Test

Even if Intelligent Design were free of its historical link to the human origin debate, teaching the theory in public schools still offends the endorsement test because of the theory's inherently religious nature. The Supreme Court has long held the Establishment Clause to preclude not only favoring one religion over another, but also favoring religion generally over nonreligion.²⁴⁸ Therefore, teaching Intelligent Design violates the Establishment Clause because the theory "embodies a generally religious viewpoint"²⁴⁹ that advances religion in general.

As under the *Lemon* test, whether or not Intelligent Design is religion does not matter under the endorsement test. Merely acknowledging a general religious belief in a designer or creator results in endorsement of religion.²⁵⁰ Intelligent Design "is concerned with addressing such fundamental questions as the origins and meaning of life and our role in the universe."²⁵¹ Although the scope of the theory does not encompass the identity or nature of the designer, Intelligent Design nonetheless postulates that an intelligent agent designed human life.²⁵²

246. Cf. *Selman*, 390 F. Supp. 2d at 1306–07 (using the history of this debate to show that a school board had impermissibly sided with creationists).

247. See *Lynch v. Donnelly*, 465 U.S. 668, 688 (1984) (O'Connor, J., concurring) (using this formulation to define the endorsement test).

248. See, e.g., *Bd. of Educ. v. Grumet*, 512 U.S. 687, 696 (1994) ("A proper respect for both the Free Exercise and the Establishment Clauses compels the State to pursue a course of 'neutrality' toward religion, favoring neither one religion over others nor religious adherents collectively over nonadherents." (citation omitted) (quoting *Comm. for Pub. Educ. & Religious Liberty v. Nyquist*, 413 U.S. 756, 792–93 (1973))); *Everson v. Bd. of Educ.*, 330 U.S. 1, 15 (1947) ("The 'establishment of religion' clause of the First Amendment means at least this: [n]either a state nor the Federal Government . . . can pass laws which aid one religion, aid all religions, or prefer one religion over another.").

249. Wexler, *supra* note 4, at 458.

250. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 720–21 (M.D. Pa. 2005) (describing Intelligent Design as a fundamentally religious theory); *id.* at 713 ("School sponsorship of a religious message is impermissible . . ." (quoting *Santa Fe Indep. Sch. Dist. v. Doe*, 530 U.S. 290, 309 (2000))).

251. Wexler, *supra* note 4, at 461.

252. See, e.g., DAVIS & KENYON, *supra* note 92, at 14 ("Intelligent design . . . locates the origin of new organisms in . . . a blueprint, a plan, a pattern, devised by an intelligent agent.").

This is precisely the same type of practice that the Court invalidated in *Edwards*.²⁵³ The *Edwards* Court found that teaching creationism in public schools violated the Establishment Clause because the theory “embodies the religious belief that a supernatural creator was responsible for the creation of humankind.”²⁵⁴ The human origin theory the Court condemned was no more specifically tied to a particular religion than is the theory of Intelligent Design.

Because the content of Intelligent Design includes the generally religious belief in a designer’s existence—of whatever character or nature—objective observers would certainly perceive teaching it in public schools as promoting and supporting some religious views.²⁵⁵ This perception “sends a message to nonadherents” of those views that they are “outsiders” and an “accompanying message to adherents that they are insiders.”²⁵⁶ It indicates the type of governmental “support [of] one religious ideology”²⁵⁷ that the endorsement test was designed to prevent. Teaching Intelligent Design, therefore, runs afoul of the endorsement test and violates the Establishment Clause.²⁵⁸

C. PROPOSED JUSTIFICATIONS FOR TEACHING INTELLIGENT DESIGN

In recent cases and journal articles, litigants and commentators have offered several justifications for teaching Intelligent Design (or variations thereof) in public schools. They argue that the doctrines of academic freedom and promotion of scientific literacy support the practice.²⁵⁹ Neither of these proposed

253. See *Edwards v. Aguillard*, 482 U.S. 578, 591–93 (1987).

254. *Id.* at 592.

255. See *Kitzmiller*, 400 F. Supp. 2d at 721 (“[Intelligent Design]’s religious nature would be . . . evident to [an] objective observer because it directly involves a supernatural designer.”).

256. See *Lynch v. Donnelly*, 465 U.S. 668, 688 (1984) (O’Connor, J., concurring).

257. See Reule, *supra* note 16, at 2567 (summarizing the test set forth in Justice O’Connor’s concurrence in *Lynch*, 465 U.S. at 687–94).

258. See *Lynch*, 465 U.S. at 688 (O’Connor, J., concurring) (using the “message to adherents” formulation to define the endorsement test); Reule, *supra* note 16, at 2567 (using the “support [of] one religious ideology” formulation to define the endorsement test).

259. See, e.g., Beckwith, *supra* note 142, at 507–14 (proposing “Exposing Students to New and Important Scholarship” and “Furthering and Protecting Academic Freedom” as justifications for teaching Intelligent Design); cf. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1302 (N.D. Ga. 2005) (accepting the advancement of critical thinking as a secular justification for

justifications, however, adequately cures the Establishment Clause violations discussed in Parts II.A and II.B.

1. The Doctrine of Academic Freedom

In 2001, Senator Rick Santorum offered an amendment (the so-called Santorum Amendment)²⁶⁰ to the No Child Left Behind Act of 2001,²⁶¹ stating that “where biological evolution is taught, the curriculum should help students to understand why this subject generates so much continuing controversy, and should prepare the students to be informed participants in public discussions.”²⁶² Senator Santorum later stated that “[t]here is a question here of academic freedom, freedom to learn, as well as to teach” and acknowledged that “a number of scholars are now raising scientific challenges to [evolution] . . . such . . . as intelligent design.”²⁶³ The U.S. Department of Education has expressed its support of the “principles—reflected in the [amendment]—of academic freedom and inquiry into scientific views or theories.”²⁶⁴

The proposed justification of encouraging academic freedom implicates the academic freedom of three groups: school districts, teachers, and students. As to school districts, this justification really amounts to nothing more than an argument that the decision to teach Intelligent Design should be left to local control.²⁶⁵ It posits that providing instruction as to “why

the use of a sticker disclaiming the factual validity of evolution).

260. 147 CONG. REC. S6147–48 (daily ed. June 13, 2001) (statement of Sen. Santorum) (reading the proposed amendment). Although the amendment passed the Senate, it was not included in the final legislation. Wexler, *supra* note 176, at 835.

261. No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002) (codified primarily in scattered sections throughout 20 U.S.C. (Supp. II 2002)).

262. 147 CONG. REC. S6148 (daily ed. June 13, 2001) (statement of Sen. Santorum) (reading from the proposed amendment).

263. 147 CONG. REC. S13377 (daily ed. Dec. 18, 2001) (statement of Sen. Santorum).

264. Letter from Gene Hickok, Acting Deputy Sec’y, U.S. Dep’t of Educ., to Linda McCulloch, Superintendent of Pub. Instruction, Mont. Office of Pub. Instruction (Mar. 8, 2004), <http://www.discovery.org/scripts/viewDB/index.php?program=News-Archived&command=view&id=1899>.

265. See *Edwards v. Aguillard*, 482 U.S. 578, 586 & n.6 (1987) (adopting the court of appeals’s understanding that “[a]cademic freedom embodies the principle that individual instructors are at liberty to teach that which they deem to be appropriate in the exercise of their professional judgment” and concluding that a state law requiring balanced treatment of creationism and evolution was in fact contrary to such a goal (alteration in original) (quoting

this subject generates so much continuing controversy”²⁶⁶ is a legitimate secular purpose for which individual school districts may teach Intelligent Design and that higher authorities should not intervene. But this really amounts to no more than an argument that teaching Intelligent Design passes the purpose prong of the *Lemon* test. As already demonstrated, teaching Intelligent Design can certainly pass this prong of the test. But the academic freedom justification is not a solution to the problem that arises under the effects prong of the *Lemon* test. In other words, a legitimate secular purpose does not cure a violation under the effects prong.²⁶⁷

The Supreme Court in *Edwards* similarly concluded that teachers’ academic freedom was “not a relevant concept”²⁶⁸ where a state balanced treatment act required teaching creationism along with evolution.²⁶⁹ That *Edwards* involved creationism and not Intelligent Design is not significant under the legal argument here. As the analysis above demonstrated, teaching Intelligent Design is just as much of an Establishment Clause violation as teaching creationism. More importantly, the law in *Edwards* instructed teachers on exactly how they were to teach the subject of human origin.²⁷⁰ The Court found that the concept of furthering academic freedom was irrelevant in such a context because the state board of education, not teachers, controlled the classroom curriculum.²⁷¹ Consistent with this reasoning, academic freedom to teach Intelligent Design is an irrelevant concept in any jurisdiction where teachers do not control the curriculum.

In rejecting the proffered purpose of furthering academic freedom, the *Edwards* Court also found that the law at issue in the case did not grant teachers any freedom that they did not

Aguillard v. Edwards, 765 F.2d 1251, 1257 (5th Cir. 1985)).

266. 147 CONG. REC. S6148 (daily ed. June 13, 2001) (statement of Sen. Santorum) (reading from the proposed amendment).

267. See, e.g., *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1305, 1308, 1312 (N.D. Ga. 2005) (finding that although the school board offered an explanation of its conduct that satisfied the purpose prong of the *Lemon* test, the effects prong was independently violated).

268. *Edwards*, 482 U.S. at 586 n.6.

269. *Id.* at 580–81.

270. See *id.* at 581 (“The Creationism Act forbids the teaching of the theory of evolution in public schools unless accompanied by instruction in ‘creation science.’”).

271. *Id.* at 586 n.6.

already have.²⁷² Under prior state law, teachers were not “prohibited . . . from teaching any scientific theory.”²⁷³ The analogy to a ban on teaching Intelligent Design is clear: because teaching the theory would constitute an Establishment Clause violation, banning its inclusion in public school science classes would not *deny* teachers any freedom that they do not already *lack*.

While *Meyer v. Nebraska* did acknowledge some measure of academic freedom for teachers,²⁷⁴ this freedom was the right to teach a language other than English.²⁷⁵ This right entails no competing constitutional violation. Teaching Intelligent Design, on the other hand, implicates all of the constitutional problems discussed earlier in this Part. When faced with similar competing constitutional violations, the *Edwards* Court specifically denounced a claim of academic freedom.²⁷⁶

Lastly, the teaching of Intelligent Design does not abridge the academic freedom of students. The *Epperson*²⁷⁷ and *Edwards*²⁷⁸ cases demonstrate that the academic freedom of students does not prevent the banning of some topics from being taught in public schools. For all the above reasons, Intelligent Design is such a topic. Nonetheless, students remain completely free to explore this theory and evaluate it as they see fit outside of the public school context. There is nothing to prevent (and actually quite a lot to protect) this activity in homes, churches, or community groups when pursued by those who wish to learn more about Intelligent Design.²⁷⁹

2. The Goal of Increasing Scientific Literacy

Another oft-propounded justification for teaching Intelligent Design is increasing the scientific literacy of students.²⁸⁰

272. *Id.* at 587.

273. *Id.*

274. *See Meyer v. Nebraska*, 262 U.S. 390, 400 (1923) (acknowledging a teacher’s right to teach German as a protected liberty under the Fourteenth Amendment).

275. *Id.*

276. *Edwards*, 482 U.S. at 586 (holding that the law at issue did not further academic freedom).

277. *Epperson v. Arkansas*, 393 U.S. 97 (1968).

278. 482 U.S. 578.

279. “Congress shall make no law . . . prohibiting the free exercise [of religion] . . .” U.S. CONST. amend. I.

280. *See, e.g., Beckwith, supra* note 142, at 507–09 (proposing “Exposing Students to New and Important Scholarship” as a justification for teaching

The claim is that, like it or not, Intelligent Design is a theory supported by at least a few respected scientists and that human origin instruction is incomplete without some mention of the debate.²⁸¹ In other words, teachers should “teach the controversy.”²⁸²

Like the argument for academic freedom, this justification aptly satisfies the purpose prong of the *Lemon* test. As one commentator concluded, “Intelligent Design’s ‘teaching the controversy’ approach textually advances freedom of thought by exposing students to various scientific theories.”²⁸³ Some proponents further urge that “[e]xposing students to larger bodies of evidence and alternative theories is necessary not only to achieve scientific literacy, but also to the future of science because it will foster critical thinking and scientific investigation.”²⁸⁴ This was the purported goal of the Santorum Amendment.²⁸⁵ Senator Santorum stated that a primary purpose of the amendment was to “enhance the quality of science education for our students.”²⁸⁶

Although the *Selman* court found that “[f]ostering critical thinking is a clearly secular purpose . . . which . . . is not a sham,”²⁸⁷ the *Kitzmiller* court held that the Intelligent Design movement seeks “not to encourage critical thought, but to foment a revolution which would supplant evolutionary theory with [Intelligent Design].”²⁸⁸ Whether or not the scientific literacy justification is sufficient to satisfy the purpose prong of the *Lemon* test, it does not cure any of the constitutional problems under the effects prong. As described above, after accepting this justification as satisfying the purpose prong of the *Lemon*

Intelligent Design); *cf.* *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1302 (N.D. Ga. 2005) (accepting the advancement of critical thinking as a secular justification for the use of a sticker disclaiming the factual validity of evolution).

281. See, e.g., Beckwith, *supra* note 142, at 462–65, 507–09.

282. Reule, *supra* note 16, at 2587 (citing DEWOLF ET AL., *supra* note 140, at 23) (stating that proponents of Intelligent Design “encourage local school boards, teachers, parents, and attorneys to ‘teach the controversy’”).

283. *Id.* at 2606.

284. Marshall, *supra* note 205, at 770.

285. 147 CONG. REC. S6147–48 (daily ed. June 13, 2001) (statement of Sen. Santorum) (reading the proposed amendment).

286. *Id.* at S6148.

287. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1302 (N.D. Ga. 2005).

288. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 745 (M.D. Pa. 2005).

test,²⁸⁹ the court in *Selman* nevertheless invalidated the disclaimer at issue because it independently violated the effects prong.²⁹⁰ For the reasons discussed in Parts II.A and II.B, the same independent violation afflicts Intelligent Design: teaching it impermissibly conveys to informed, reasonable observers a message that the teaching body has chosen a side in the debate. A proffered purpose of increasing scientific literacy cannot, therefore, cure the constitutional violation.

This is not to suggest an abandonment of efforts to further scientific literacy. There is surely evidence of the origins and development of life that evolution has not been able to fully explain.²⁹¹ Schools, therefore, can and should teach students about the problems with evolution and how to evaluate them.

III. SCHOOLS MAY CONSTITUTIONALLY PRESENT SOME PRINCIPLES OF INTELLIGENT DESIGN

Presenting the idea of an intelligent designer in public school science classes violates the Establishment Clause. However, this does not mean that schools must avoid the topic altogether. Schools may still present secular, scientific criticisms of evolution in science classes. They may also describe theories such as Intelligent Design outside of science classrooms.

A. SECULAR CRITICISMS OF EVOLUTION AND ACKNOWLEDGMENT OF COMPETING RELIGIOUS THEORIES

Even though teaching Intelligent Design in public school science classrooms is unconstitutional, teaching secular, scientific criticisms of evolution is not. Since much of the material upon which the theory of Intelligent Design is based consists of secular, scientific observations,²⁹² teachers can present this material to illustrate the shortcomings of evolutionary theory. For all the reasons already discussed, it is only when public school teachers introduce the concept of a creational or designing force that they cross the constitutional line.

289. *Selman*, 390 F. Supp. 2d at 1302.

290. *Id.* at 1308, 1312.

291. *See, e.g., Van Biema, supra* note 201, at 34 (including in a forum on the evolution-creationism debate a statement by Francis Collins, director of the National Human Genome Research Institute, who observed that “no one could claim yet to have ferreted out every detail of how evolution works”).

292. *See Reule, supra* note 16, at 2587 (explaining that Intelligent Design advocates incorporating the views of scientists who “feel that certain evidence displays distinctive features of intelligently designed systems”).

The concept of irreducible complexity provides a good example of such relevant and permissible criticisms of evolution. Irreducible complexity is the theory that some organic features would not function without every one of their components intact.²⁹³ Proponents of Intelligent Design use this idea to point out a failing of evolution: it does not address the observation that features with irreducible complexity cannot have evolved from any simpler feature because any simpler feature would not have been able to function, and so would not have evolved in the first place.²⁹⁴ Presenting the idea of irreducible complexity to illustrate a potential shortcoming of evolution does not implicate constitutional problems because it does not suggest any religious or nonreligious view. Irreducible complexity is merely a scientific and testable theory that presents a natural observation challenging evolution.²⁹⁵ Teachers may not, however, use the concept of irreducible complexity as evidence of a designing agent, as do proponents of Intelligent Design.²⁹⁶ Taking this conclusory step espouses a religious view and, for all the reasons discussed above, violates the Establishment Clause.

As a scientific theory, evolution welcomes criticism. Under the analysis above, science teachers are constitutionally free to present secular evidence that supports or undermines evolution. Teachers can also acknowledge both the fact that many people may have religious beliefs that are inconsistent with evolution and the existence of competing religious theories such as Intelligent Design.²⁹⁷ The Establishment Clause is offended only when a teacher presents the merits of a theory that espouses religious views (in other words, presents the substance of the theory as a viable version of truth).²⁹⁸ The distinction

293. See Beckwith, *supra* note 142, at 473–75.

294. See *id.* Evolutionists, however, have provided explanations of how these features evolve. See, e.g., *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 740 (M.D. Pa. 2005). Such a scientific discussion is beyond the scope of this Note.

295. See *Kitzmiller*, 400 F. Supp. 2d at 738 (“Irreducible complexity is a negative argument against evolution, not proof of design . . .”); *id.* at 740 (noting that irreducible complexity is a testable and refutable theory).

296. See Beckwith, *supra* note 142, at 475.

297. See Davis, *supra* note 40, at 219 (“[C]reationism can be presented in public school settings, provided it is presented *objectively* and not as *truth* . . .” (second emphasis added)).

298. Cf. *id.* (“[C]reationism can be presented in public school settings, provided it is presented objectively and *not as truth* . . .” (emphasis omitted and

may be subtle, but it is important: acknowledging the existence of competing religious theories is permissible;²⁹⁹ including them in science curricula and presenting their merits is not.³⁰⁰ In other words, the distinction is between *describing* religious views and *advancing* them.

B. INTELLIGENT DESIGN IN SOCIAL STUDIES CLASSES

Another subtlety involves the specific context in which public schools present Intelligent Design. Although science teachers may not present Intelligent Design on the merits, social studies teachers may describe the content of this theory without raising constitutional concerns. Outside of science classrooms, schools may teach Intelligent Design as an illustration of the current and historical controversy over competing theories of human origin, as a part of a survey of religions or religious views, or as an example of the development of science as a discipline.³⁰¹ As for education in the controversy itself, “any critical thinking advantages that could be gained by teaching intelligent design . . . can probably be gained by teaching about religion in social science classes and discussing the various relationships between religious and scientific ways of thinking in that context.”³⁰² In social studies classrooms, such instruction is not a presentation of the merits of Intelligent Design, but rather an unendorsed description of its content.³⁰³

Schools, therefore, retain ample ability to present a full human origin education. Public school science classes may present the secular, scientific observations upon which Intelligent Design relies as valid critiques of evolution. Social studies

emphasis added)).

299. See, e.g., *Epperson v. Arkansas*, 393 U.S. 97, 106 (1968) (citing *Abington Sch. Dist. v. Schempp*, 374 U.S. 203, 225 (1963)) (“While study of religions . . . from a literary and historic viewpoint, presented objectively as part of a secular program of education, need not collide with the First Amendment’s prohibition, the State may not adopt programs or practices in its public schools or colleges which ‘aid or oppose’ any religion.”).

300. Cf. *Edwards v. Aguillard*, 482 U.S. 578, 584 (1987) (stating that classrooms may not be used “to advance religious views”).

301. See Wexler, *supra* note 176, at 787 (“[H]istory teachers could teach about the history of the opposition to evolution . . . ; civics teachers could teach about the ongoing controversy over origins . . . ; [and] philosophy teachers could teach about the epistemological claims of science and religion . . .”).

302. *Id.* at 848.

303. See *id.* at 793 (explaining that teachers may describe the content of religious theories of human origin so long as they do not express personal views regarding them).

classes may acknowledge and describe the remaining portion of Intelligent Design—namely, the existence of a designing agent—so long as they do not present it on its merits. Such a solution allows for a comprehensive education while avoiding the problem of religious endorsement that leads to an Establishment Clause violation.

CONCLUSION

The debate over public school human origin education is now over eighty years old. The recent movement to teach Intelligent Design is only the latest chapter. As with its religious predecessors, teaching Intelligent Design in public school science classes violates the Establishment Clause under either the *Lemon* test or the endorsement test. The historical pedigree that Intelligent Design shares with the creationism that the Supreme Court has previously invalidated and the theory's inherently religious characteristic of acknowledging an intelligent designer or creator render this conclusion unavoidable. Neither a purpose to advance academic freedom nor a purpose to further scientific literacy can overcome this constitutional violation.

This conclusion has both broad and narrow implications. Narrowly, it applies only to human origin education in public school science classrooms. Broadly, it applies, not only to Intelligent Design, but also to any theory that explicitly postulates the existence of a designer, creator, or any other nonnaturalistic superintendent of life's development.

None of this is to say that teaching the shortcomings of evolutionary theory is unconstitutional. However, as one scholar argued, "Establishment Clause concerns arise . . . when 'teaching the controversy' moves from the point of teaching a number of theories directly to undermining evolution in order to contend that a designer is the only possible explanation."³⁰⁴ Evolution is neither a perfect nor complete theory, and schools should teach children how to critically evaluate it. In order to remain constitutional, however, such instruction must remain secular and scientific.

304. Reule, *supra* note 16, at 2602.