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Dogging Darwin: America's Revolt Against The Teaching Of Evolution

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DOGGING DARWIN: AMERICA’S REVOLT AGAINST THE TEACHING OF EVOLUTION

RUTH C. STERN AND J. HERBIE DIFONZO*

ABSTRACT

More than four in ten Americans believe that God created humans in their present form 10,000 years ago. American antagonism toward the teaching of evolution is deeply rooted in fundamentalist tradition and an aversion to intellectualism. These forces have combined to demonize Charles Darwin to such an extent that sectarian-based legal and political attacks on evolution show no signs of abating. Darwin’s day in court began in 1925 with the famous Scopes Monkey Trial. It continued into the 21st century with Kitzmiller v. Dover Area Schools. Throughout, the core creationist agenda has remained the same, although an evolution in labeling has produced such variants as “creation science,” “intelligent design,” “teach the controversy,” and, more recently, “sudden emergence theory.”

Along the way, anti-evolutionists invoked the First Amendment’s Free Exercise Clause to argue that religious freedom trumps the church-state divide. They also claimed, pursuant to the Establishment Clause, that maintaining a secular state imposes a decree of non-belief on Christian citizenry. Bracketed by the events in Dayton, Tennessee and Dover, Pennsylvania, this article explores the anti-evolutionist crusade and concludes that creationist interpretations of the First Amendment are untenable. Current law continues to uphold limitations on expressions of religion in state action. Our legal traditions, as well as reputable science education standards, support the teaching of evolution in America’s public schools unencumbered by religious doctrine.

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I. INTRODUCTION

Emma Darwin feared for her husband's soul. Newly married in 1839, she wrote her beloved Charles a letter, entreating him not to allow scientific pursuits to divert him from things "which if true are likely to be above our comprehension." She worried about the "danger in giving up revelation" and "ingratitude in casting off" what Jesus had done "for your benefit as well as for that of all the world." Though eternal life might lie beyond the realm of scientific proof, "I should be most unhappy if I thought we did not belong to each other forever."¹ Emma's letter moved Charles to tears, and he would remember it all his days.²

In 1844, Darwin wrote to botanist Joseph Hooker disclosing his beliefs about the common origin of all earthly life. He had become convinced that species were not immutable, and had not separately emerged fully formed by the hand of God. To Darwin, admitting this was "like confessing a murder."³ For many years, the concept of salvation had eluded him, and he was deeply troubled.⁴ Toward the end of his life, however, Darwin could no longer understand "how anyone ought to wish Christianity to be true."⁵ The teachings of the New Testament would condemn nonbelievers like his father, his brother, and nearly all of his friends to everlasting punishment. And this, he concluded, "is a damnable doctrine."⁶ Most comfortable as an agnostic, Darwin neither subscribed to nor sought to disprove the existence of God.⁷ He had no remorse about devoting his life to science and believed he had committed no "great sin" in doing so.⁸

Darwin reconciled religion and science by cherishing the ancient bonds connecting all earth's creatures: "When I view all beings not as special creations, but as the lineal descendants of some few beings that lived

1. *Darwin, Emma to Darwin, C.R., c. Feb. 1839*, THE DARWIN CORRESPONDENCE PROJECT, <http://www.darwinproject.ac.uk/letter/DCP-LETT-471.xml> (Letter from Emma Darwin to Charles Darwin) (last visited Jan. 21, 2016).

2. ADRIAN DESMOND & JAMES MOORE, *DARWIN* 28 (1991).

3. 1 FRANCIS DARWIN (ED.), *THE LIFE AND LETTERS OF CHARLES DARWIN* 384 (New York, D. Appleton and Co. 1897).

4. DESMOND & MOORE, *supra* note 2, at 636.

5. *Id.* at 623 (quoting Charles Darwin).

6. *Id.*

7. HOWARD E. GRUBER & PAUL H. BARRETT, *DARWIN ON MAN* 212 (1974).

8. *Id.*

long before the first bed of the Cambrian system was deposited, they seem to me to become ennobled.”⁹ Such notions of species relatedness hold no charms for the strictly dogmatic. For them, these concepts constitute the vilest of affronts to human and religious dignity. In 1920s America, fundamentalist Rev. Charles F. Bluske branded evolutionists “an insane set of ignorant, educated fools, who insist on lowering their own organic life to that of a monkey or animal.”¹⁰ Crusaders of the Christian faith, especially those of a Biblically literalist stripe, railed against Darwin’s “immoral, soul-destroying doctrine.”¹¹ In the era that spawned the Scopes trial, anti-evolutionists saw no thorny dilemma between religion and science. Darwinism, they averred, “should be legislated, routed, run and kicked out of existence back to its place of origin which is in hell, because its teachings are against the word of God.”¹² Infidels and wicked scientists were doomed to go the way of their impious doctrines: “Old Darwin is in hell,” announced the Rev. Billy Sunday.¹³

No other field of science has sparked more rage and passion than evolution. The reason for this, explains biologist Jerry A. Coyne, is that “no majestic galaxy or fleeting neutrino has implications that are as personal.”¹⁴ Darwin proposed that human beings, like all species, arose from the workings of unguided, random forces over vast expanses of time. In doing so, Darwin had rudely unseated man from his throne at the pinnacle of creation. Deprived of belief in their own uniqueness, humans were forced to confront a radically altered creation scenario, one in which “the same forces that gave rise to ferns, mushrooms, lizards and squirrels also produced us.”¹⁵ Over time, the evidence supporting Darwin’s theory of evolution by natural selection has proved overwhelming, even to firm believers in God. Religious conservatives have, albeit reluctantly, come to accept evolution as authoritative. But because the human soul is “inaccessible to scientific investigation,”¹⁶ they insist that the soul was specially created.¹⁷ Liberals,

9. 1 CHARLES DARWIN, *THE ORIGIN OF SPECIES, WITH ADDITIONS AND CORRECTIONS FROM SIXTH AND LAST ENGLISH EDITION* 304 (New York, D. Appleton and Co. 1899).

10. MAYNARD SHIPLEY, *THE WAR ON MODERN SCIENCE* 190 (1927) (citing *The American Mercury*, Feb. 1926 (quoting Rev. Charles F. Bluske)).

11. *Id.* at 118.

12. *Id.* at 219 (quoting undated letter to *The Knoxville News*).

13. CHARLES T. SPRADING, *SCIENCE VERSUS DOGMA* 41 (1925) (quoting Rev. Billy Sunday).

14. JERRY A. COYNE, *WHY EVOLUTION IS TRUE*, at xv (2009).

15. *Id.* at 224.

16. IAN BARBOUR, *RELIGION IN AN AGE OF SCIENCE* 8 (Gifford Lectures, 1989-1991, vol. 1) (1990).

17. *Id.* at 155.

unruffled by this qualification, prefer to think of evolution as “God’s way of creating.”¹⁸

Those who hew most tightly to Scriptural interpretation assert that the world and its inhabitants exist today just as God originally designed them. This view renders Darwin’s theory superfluous.¹⁹ In fact, introducing elements of intelligent planning and decision-making “reduces natural selection from the position of a necessary and universal principle to a mere possibility.”²⁰ From this reasoning comes the persistent and erroneous assumption that Darwinism is “only a theory,” or, as the voluble Christian fundamentalist William Jennings Bryan put it, “Darwinism is not science at all; it is guesses strung together.”²¹ In 1980, presidential candidate Ronald Reagan opined that evolution is a “theory only, and it has in recent years been challenged in the world of science and is not yet believed in the scientific community to be as infallible as it once was believed.”²² A May 2014 Gallup Poll found that forty-two percent of Americans continue to believe that God created humans in their present form 10,000 years ago, “a view that has changed little over the past three decades.”²³ While half of American respondents accept the concept of human evolution, a majority of those hold that God has guided the evolutionary process.²⁴ A 2006 study of global attitudes toward Darwinism found that the percentage of Americans who believe evolution to be “absolutely false” was greater than in all but one of thirty-two countries surveyed. Only the Turks had a lower acceptance of evolution than the Americans.²⁵

If one were to characterize the American mind, individualism and independence would surely be cited as obvious traits. But we have also been molded by two other solidly American influences, an aversion to intellectualism and a deeply embedded strain of evangelicalism that, by the 1920s, had hardened into fundamentalism. As John Dewey observed, we are a de-

18. *Id.*

19. GRUBER & BARRETT, *supra* note 7, at 211.

20. *Id.*

21. EDWARD J. LARSON, *SUMMER FOR THE GODS: THE SCOPES TRIAL AND AMERICA’S CONTINUING DEBATE OVER SCIENCE AND RELIGION* 42 (1997) (quoting William Jennings Bryan) (hereinafter, LARSON, *SUMMER FOR THE GODS*).

22. Jerry Bergman, *Presidential Support for Creationism*, INST. FOR CREATION RESEARCH (2006), <http://www.icr.org/article/presidential-support-for-creationism> (quoting Ronald Reagan).

23. Frank Newport, *In U.S., 42% Believe Creationist View of Human Origins*, GALLUP.COM (JUNE 2, 2014), <http://www.gallup.com/poll/170822/believe-creationist-view-human-origins.aspx>.

24. *Id.*

25. James Owen, *Evolution Less Accepted in U.S. Than Other Western Countries, Study Finds*, NAT’L GEOGRAPHIC NEWS (Aug. 10, 2006), <http://news.nationalgeographic.com/news/2006/08/060810-evolution.html>.

cent, neighborly, philanthropic, churchgoing people, evincing a “social and political liberalism combined with intellectual illiberality.”²⁶ We have no great love for “ideas as ideas”²⁷ and, at times, our mental pathways are swamped by “an excess of piety expended within too contracted a frame of reference.”²⁸ We treasure religious freedom but do not hesitate to appraise the worth of another’s conduct and ideas by the light of our own doctrinal preferences.

The framers of the First Amendment understood the power of religion. In order to guarantee its liberty of expression, they erected a barrier between church and state to prevent each sphere from invading the province of the other.²⁹ Our citizenry is among the world’s most deeply religious, and “also perhaps the most zealous in guarding our public institutions against explicit religious influences.”³⁰ At the same time, as this paper demonstrates, fundamentalists would sooner dispense with the wall between church and state than allow it to impede expression of religious freedom. They further hold that maintaining a secular state is less a fulfillment of a constitutional ideal than a sinister device to drain our daily lives of Christian values. The First Amendment, argue the anti-evolutionists, is meant to maximize religious freedom, not burden it with godless governmental interference.

In America, Darwinism has endured more than a century’s worth of intellectual misapprehension in general and attacks by religious zealots in specific.³¹ The 1925 *Scopes* trial showcased one of the most burning topics of its day, the conflict between fundamentalism and modernism. But in the end, on the issue of mixing religion and public school education, the *Scopes* court declined to establish, or even consider, a workable legal standard for drawing the line between church and state.³² Eighty years later, in *Kitzmiller v. Dover Area School District*,³³ the fundamentalists had changed tactics, from suppressing the teaching of evolution to promoting intelligent design as a viable alternative to Darwinism. In deciding *Kitzmiller*, a federal district court judge was able to employ First Amendment precedents un-

26. John Dewey, *The American Intellectual Frontier*, THE NEW REPUBLIC, May 10, 1922, at 303.

27. *Id.*

28. RICHARD HOFSTADTER, *ANTI-INTELLECTUALISM IN AMERICAN LIFE* 29 (1963).

29. For example, Thomas Jefferson proposed “a wall of separation between Church and State.” See *Letter to the Danbury Baptists*, Jan. 1, 1802, <http://www.loc.gov/loc/lcib/9806/danpre.html>.

30. STEPHEN L. CARTER, *THE CULTURE OF DISBELIEF* 8 (1993).

31. See generally EDWARD J. LARSON, *TRIAL AND ERROR: THE AMERICAN CONTROVERSY OVER CREATION AND EVOLUTION* (3rd ed. 2003) (hereinafter LARSON, *TRIAL AND ERROR*).

32. *Scopes v. Tennessee*, 289 S.W. 363 (Tenn. 1927).

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

available at the time of *Scopes*.³⁴ Further, unlike the trial judge in the earlier case, the *Kitzmiller* court openly welcomed scientific evidence.³⁵ In the later case, the judge recognized his role as essential in distinguishing Darwinism from faith-based doctrines posing as science, and determining which of those theories properly belonged in the classroom.³⁶

Compared to *Scopes*, *Kitzmiller* was a triumph of rationality. But it failed to bring a lasting peace to Darwin's poor battered ghost. The website for the National Center for Science Education contains a running chronicle of state and local efforts to interfere with or dilute the teaching of evolution in our public schools.³⁷ Enlightened courts may censure bad science and veto religious trespasses on the affairs of state but they will never entirely resolve the evolution controversy. Its roots are too deeply entwined with America's distrust of intellectual abstraction and its penchant for dogma that dispels ambiguity and complexity. It is too much a part of who we as Americans are.

II. THE AMERICAN BATTLE BETWEEN SCIENCE AND SCRIPTURE

John Dewey observed that our nation's founders were members of an intellectual elite, freethinkers whose Enlightenment ideas equipped them well for leadership.³⁸ "A generation later," said Dewey, "and it is doubtful if one of them could have been elected town selectman, much less have become a powerful figure."³⁹ Dewey was alluding to the rise of American anti-intellectualism, a trait that has become as closely allied with our national character as that of the frontier settler and the self-made man. Our anti-intellectualism manifests itself in "a resentment and suspicion of the life of the mind,"⁴⁰ a distrust of privilege that is often linked with literary abstractions and intellectual aristocracies. Early nineteenth century Americans valued literacy as a means to disseminate information useful to the life of the average citizen. As the century advanced, the dictates of business

34. See, e.g., *Epperson v. Arkansas*, 393 U.S. 97 (1968) (holding that Arkansas statutes forbidding the teaching of evolution in public schools are contrary to the freedom of religion mandate of the First Amendment); *Edwards v. Aguillard*, 482 U.S. 578 (1987) (holding that a requirement that public schools teach "creation science" along with evolution violated the First Amendment's Establishment Clause).

35. *Kitzmiller*, 400 F. Supp. 2d at 735-46 (detailing the extensive expert evidence which the court considered in concluding that intelligent design is not a scientific alternative to evolution).

36. *Id.* at 765.

37. THE NATIONAL CENTER FOR SCIENCE EDUCATION, <http://ncse.com> (last visited Jan. 21, 2016).

38. Dewey, *supra* note 26, at 303.

39. *Id.*

40. HOFSTADTER, *supra* note 28, at 7.

came to dominate American culture, and one could readily see that astounding success could be achieved with little or no formal schooling. To a nation consumed with practical tasks and realities, scholarly pursuits were worth far less than “a gift for compromise and plain dealing [and] a preference for hard work and common sense.”⁴¹

America’s aversion to intellectualism was not the fault of our Puritan forebears. True, they were an intolerant bunch who regarded heresy as toxic and who habitually hounded the Quakers and the Baptists. “[T]hey took a gloomy view of human nature, and were always inclined to attribute the pursuit of pleasure by young people to innate depravity.”⁴² At the same time, however, the Puritan clergy were well-educated, intellectually curious men who were highly receptive to new scientific ideas.⁴³ The village of Salem, Massachusetts where, in 1692, nineteen people and two dogs were hanged as witches, was something of a backwater and an anomaly. Its people were poor, it had no school, and the quality of its ministers was decidedly inferior.⁴⁴ For the most part, Puritanism stimulated rather than prevented an interest in poetry, literature and science. Despite pioneer hardships, there was a burgeoning of genuine intellectual life in that series of little beach-heads on the edge of the wilderness, which was seventeenth century New England.⁴⁵ By the end of the eighteenth century, the Great Awakening and the dawn of revivalist religion would put an end to the Puritan age.

Americans who experienced the Awakening of the mid-1700s “had moved beyond the reach of the ministry, either geographically or spiritually.”⁴⁶ From Massachusetts to Virginia, somnolent congregations nodded off to sermons steeped in dull doctrinal controversies that had no power to transport them. Revivalist preachers like Jonathan Edwards combined eloquence with zeal, an invigorating tonic to a population “ripe for [religious] awakening.”⁴⁷ Especially among the poorer, less educated classes, the emotional fervor of revivalism represented a revolt against the upper class clergy, with its liturgies and its “aristocratic manners and morals.”⁴⁸ Evangelical ministers were popular crusaders and exhorters who spoke to the common people in a language they could easily understand. The Awakening

41. *Id.* at 43.

42. SAMUEL ELIOT MORISON, *THE INTELLECTUAL LIFE OF COLONIAL NEW ENGLAND* 173 (1956).

43. *Id.* at 241.

44. *Id.* at 259.

45. *Id.* at 4.

46. HOFSTADTER, *supra* note 28, at 64.

47. *Id.*

48. *Id.* at 56.

“quickened the democratic spirit in America,” and “gave to American anti-intellectualism its first brief moment of militant success.”⁴⁹

As the frontier expanded, churches became havens of respectability, order, and decency amidst a rough and tumble world. For poor whites, the church was “upon the whole the most democratic institution within their horizon.”⁵⁰ On the far frontier, ministers sent out by mission societies faced communities of nonbelievers, the unchurched, couples living in unsanctified unions, and a general atmosphere of drunkenness, disorderliness, and sometimes savagery. Circuit-riding Methodist minister Peter Cartwright reported “rowdies armed with knives, clubs, and horsewhips” showing up to disrupt camp meetings, obliging him to “lead his congregation in a counterassault.”⁵¹ Itinerant preachers, charged with “the hard task of bringing religion westward,”⁵² were a special breed. They relied on charisma, showmanship, and a vernacular style of preaching to convert their obstreperous flocks. Such methods were not conducive to exporting culture and learning to America’s further reaches. Indeed, the antics of these foot-stomping “flaming evangelists,” left old-style ministers “at somewhat the same disadvantage as an aging housewife whose husband has taken up with a young hussy from the front line of the chorus.”⁵³

Riding the waves of successive revivals, the evangelists were, by far, the principal proponents of Protestant Christianity on the American frontier as well as in the growing cities. They founded missions, Bible and education societies, Sunday schools, and temperance unions. By 1870, awakenings had become “respectable and even necessary signs of vitality” in cities as well as rural outposts and among the educated and uneducated alike.⁵⁴ The evangelicals held the Bible to be the one true source of religious authority, accessible enough so that each individual could interpret it on his or her own. The people needed no assistance from a liturgy or Bible scholar to read and follow the Good Book. In the spirit of the earlier English Quakers and Anabaptists, revivalists “argued for intuition and inspiration as against learning and doctrine.”⁵⁵ In the post-Civil War South, theologians who had been educated in the North became “isolated and without national influence.”⁵⁶ Southern evangelicals were deeply conservative, intolerant of dissent, and uninterested in debating whether science could be harmonized

49. *Id.* at 74.

50. Dewey, *supra* note 26, at 304.

51. HOFSTADTER, *supra* note 28, at 79.

52. *Id.*

53. *Id.* at 67.

54. GEORGE M. MARSDEN, *FUNDAMENTALISM AND AMERICAN CULTURE* 11 (2006).

55. HOFSTADTER, *supra* note 28, at 57.

56. MARSDEN, *supra* note 54, at 22.

with Scripture.⁵⁷ In 1887, the Rev. Dr. James Woodrow, uncle to the future President Woodrow Wilson, was expelled from a Columbia, South Carolina seminary for endorsing Darwinism. As a biological hypothesis, Woodrow contended, evolution “had no more to do with the Bible and theology than the multiplication table.”⁵⁸

Theologians could accommodate science to Scripture, if they chose to. Methodism’s co-founder, John Wesley, was “a great popularizer of science.”⁵⁹ He wrote of a gradual, natural progress from one species to another. Observing how remote man was from the All-perfect Creator, Wesley even wondered whether there are more species above humans than below them.⁶⁰ In the late 1860s, Princeton president Rev. James McCosh averred that evolution posed no danger to faith and that science and Scripture are “parallel and mutually confirmatory revelations.”⁶¹ Both, according to McCosh, “reveal order in the world; the one appointed by God; the other discovered by man.”⁶² Brooklyn minister Henry Ward Beecher, seeking to relieve the anxieties of respectable evangelicals about the new science, suggested that science teaches us observable truths, but “we need the Christian ministry to teach us those things which are invisible.”⁶³

During an 1873 debate on Darwinism and the Bible, University of Rochester President Martin Brewer Anderson adopted a position that years later would become fused with the fundamentalist creed. Arguing that science was a system of carefully ascertained facts and verifiable laws, Anderson concluded that Darwinism was not science but, at best, “an unverified working hypothesis.”⁶⁴ Anderson was misled by his too-restrictive, common sense view of science as a classification of certainties. Among scientists, the revelation of generalizable, universal truths is “a goal that can never be attained, but which must always be assumed to be attainable.”⁶⁵ As stated by Stephen Jay Gould, facts “are the world’s data. Theories are structures of ideas that explain and interpret facts.”⁶⁶ Darwin had established the fact of evolution and proposed a theory, natural selection, as its mecha-

57. *Id.* at 103.

58. SHIPLEY, *supra* note 10, at 117 (quoting James Woodrow).

59. GRUBER & BARRETT, *supra* note 7, at 58.

60. *Id.* at 58-59 (citing JOHN WESLEY, *A SURVEY OF THE WISDOM OF GOD IN THE CREATION: OR A COMPENDIUM OF NATURAL PHILOSOPHY*, 3 vols., 2nd ed., 200-201 (Bristol 1770)).

61. MARSDEN, *supra* note 54, at 19.

62. *Id.* (quoting James McCosh).

63. *Id.* at 21 (quoting Henry Ward Beecher).

64. MARSDEN, *supra* note 54, at 19.

65. Jesse H. Shera, *Darwin, Bacon, and Research in Librarianship*, 13 *LIBRARY TRENDS* 144 (July 1964).

66. STEPHEN JAY GOULD, *Evolution as Fact and Theory*, May 1981, in STEPHEN JAY GOULD, *HEN’S TEETH AND HORSE’S TOES* 253-262 (1994).

nism.⁶⁷ Darwin was nothing if not scientific. He observed variation in species and became curious about its implications, “but he did not begin his systematic study of its manifestations in domestic animals and plants until he had hypothesized the outcome of his inquiry.”⁶⁸ Darwin’s theory of natural selection, although unquestionably important, continues to be the subject of animated scientific discussion. This, Gould assured us, is a sign of “intellectual health,” and facts like evolution “do not go away while scientists debate rival theories for explaining them.”⁶⁹

In the late nineteenth century, keeping the peace between religion and science required the theologians to assign each one to parallel spheres. Churches “withdrew from intellectual encounters with the secular world,” assuming that rational inquiry belonged to “the natural province of science alone.”⁷⁰ In America’s schools, evangelicalism continued to dominate. Texts like *McGuffey’s Readers* warned against the hazards of hard liquor, extolled the value of Bible reading, keeping the Sabbath, hard work and “above all stressed that virtue would be rewarded.”⁷¹ But even in this securely Christian nation,⁷² not all Americans welcomed a truce between science and Scripture. In the South, by the late nineteenth century, “evolution was already a chief symbol of heresy.”⁷³ Within a short time, in both the North and South, the anti-science, anti-intellectual stance of the most conservative evangelicals would form the basis of a new and even more uncompromising sect. Darwinism, once again, would be the tinder that inflamed the fury against America’s scientific and intellectual communities.

III. FUNDAMENTALISM IN THE TIME OF *SCOPES*

William Jennings Bryan, the “fundamentalist pope,”⁷⁴ was also known as the Great Commoner and the Silver-Tongued Orator. A left-wing politician with right-wing religious views, he personified the “illiberalism which is deep-rooted in [America’s] liberalism.”⁷⁵ During his thirty-five-year ca-

67. *Id.*

68. Shera, *supra* note 65, at 142.

69. GOULD, *supra* note 66, at 254.

70. HOFSTADTER, *supra* note 28, at 87.

71. MARSDEN, *supra* note 54, at 14.

72. See HOFSTADTER, *supra* note 28, at 87-99 (noting that in 1850, although Roman Catholics were the largest Christian denomination, the former dissenters—Methodists and Baptists—had grown significantly. The more established denominations—Presbyterian, Congregationalist, Lutheran, and Episcopalian—lagged behind); see generally GRANT WACKER, *RELIGION IN NINETEENTH CENTURY AMERICA* (2009).

73. MARSDEN, *supra* note 54, at 104.

74. LARSON, *SUMMER FOR THE GODS*, *supra* note 21, at 172 (quoting H.L. Mencken, *The Monkey Trial: A Reporter’s Account*, 14 July 1925).

75. Dewey, *supra* note 26, at 305.

reer in public service, Bryan served in Congress, led the Democratic party, ran for president three times and was appointed secretary of state under Woodrow Wilson.⁷⁶ A tireless Progressive era activist, Bryan was also instrumental in securing ratification of four constitutional amendments “designed to promote a more democratic or righteous society: the direct election of senators, a progressive federal income tax, Prohibition, and female suffrage.”⁷⁷ An optimist by nature, who joyfully anticipated eternal life through faith in Christ, Bryan also indulged a keen enjoyment of worldly pursuits and pleasures. Ray Ginger, noting Bryan’s fondness for florid theologizing and greasy food, dubbed him as one who “lived high on the hog-ma.”⁷⁸ In 1920, amidst a burgeoning fundamentalist anti-evolution movement, Bryan leaped into the fray, became the crusade’s champion, and gave the cause new life.⁷⁹

From the end of the Civil War to the beginning of the twentieth century, the forces of industrialization and urbanization produced a newer and more liberal type of evangelicalism. The Social Gospel began to outshine revivalism as a means to raise up sinners and save their souls. With its emphasis on social concerns and good works, the Social Gospel strived to express God’s truth in moral endeavors. Conservative evangelicals, while not opposed to good works, believed the liberals had weighted the scale too heavily in favor of social action and too lightly in support of religious dogma. Traditional Christians objected to the way in which the Social Gospel’s more overt form of soul saving seemed to “undercut the relevance of the message of eternal salvation through trust in Christ’s atoning work.”⁸⁰ Seeking to restore the balance of religious priorities, the 1910 Presbyterian General Assembly adopted a five-point declaration of doctrines essential to Christianity: (1) the infallibility of Scripture, (2) the Virgin birth of Christ, (3) Christ’s substitutionary atonement for man’s sins, (4) the resurrection of Christ, and (5) the authenticity of Biblical miracles.⁸¹ These principles would later comprise the five tenets of fundamentalism.

The advent of modernism, which sought to adapt religious ideas to modern culture, was particularly abhorrent to conservative Christians. Evangelical Baptists and Methodists who seemed too tolerant of modernist ideas were bitterly resented as “defectors” by the fundamentalists.⁸² Further, many Americans blamed World War I and German barbarism on godless Nietzschean ideas extolling the supremacy of the fittest and the strongest.

76. Bryan resigned his cabinet post in opposition to U.S. entry into World War I.

77. LARSON, *SUMMER FOR THE GODS*, *supra* note 21, at 38.

78. RAY GINGER, *SIX DAYS OR FOREVER?* 37 (1958).

79. MARSDEN, *supra* note 54, at 169.

80. *Id.* at 92.

81. *Id.* at 117.

82. HOFSTADTER, *supra* note 28, at 117.

Such a philosophy harbored a suspicious likeness to the Darwinian struggle for survival. As early as 1904, Bryan decried Darwinian notions that replaced the hand of God in shaping human destiny with a “merciless law by which the strong crowd out and kill off the weak.”⁸³ Linking eugenics to the teaching of evolution, fundamentalists reviled efforts to improve the human race by breeding out “undesirable” traits as the “damnable consequence of Darwinian thinking.”⁸⁴

Americans were deeply shaken by the brutality of World War I as well as its aftermath—“an unjust and uneasy peace, the rise of international communism, worldwide labor unrest, and an apparent breakdown of traditional values.”⁸⁵ Spurred by a grave concern about the state of American society, the World’s Christian Fundamentals Association formed in 1918. Resolved to ward off evil “until the Lord returned,”⁸⁶ fundamentalists evinced a fierce determination to “strike back against everything modern.”⁸⁷ This atmosphere of “social and political alarm”⁸⁸ evolution, which so brazenly contradicted a literalist reading of scripture, became the principal peril to be reckoned with. By 1920, fundamentalist Christians had united in a quest to “purge the churches of modernism and the schools of Darwinism.”⁸⁹

Due in part to Progressive era school attendance laws, the number of students enrolled in U.S. high schools soared from 200,000 in 1890 to almost two million in 1920.⁹⁰ Regarded by many Americans as the culmination point of education, a high school diploma became essential equipment for young people wishing to compete for worldly success. And though American parents largely approved of high schools, many feared the disturbing certainty that their children would “be menaced there by evolutionism.”⁹¹ The recently organized field of biology had unified the teaching of botany and zoology, incorporating Darwinism into most high school curricula. The best-selling text of its day, George William Hunter’s *A Civic Biol-*

83. WILLIAM JENNINGS BRYAN, *The Prince of Peace*, in SPEECHES OF WILLIAM JENNINGS BRYAN 268 (1909), <http://thriceholly.net/Texts/Prince.html>.

84. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 27-28. Fundamentalists continue to link Darwinism with eugenics. See Grant Williams, *A Civic Biology and Eugenics*, CREATION.COM, <http://creation.com/a-civic-biology-and-eugenics> (Darwin’s eugenic beliefs “ultimately ‘evolved’ into the direct method that emerged in the extermination camps of Nazi Germany”) (last visited Jan. 21, 2016).

85. *Id.* at 35.

86. MARSDEN, *supra* note 54, at 31.

87. HOFSTADTER, *supra* note 28, at 121.

88. MARSDEN, *supra* note 54, at 141.

89. *Id.* at 5.

90. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 24.

91. HOFSTADTER, *supra* note 28, at 126.

ogy, charted scientific developments “by including sections on both natural selection and genetics.”⁹²

Opposition to the teaching of evolution in the nation’s schools rested on several basic assumptions—that it was not science, that it relied on blind, purposeless forces rather than divine intervention, and that it destroyed moral responsibility by tying human origins to a lower order of brutish beings.⁹³ To expose the youth of America to the teachings of Darwinism was to ensure their corruption, making them “entirely too smart for the religion of their parents.”⁹⁴ To his unholy, evolutionist opponents, Bryan argued “You believe in the age of rocks: I believe in the Rock of Ages,”⁹⁵ and “More of those who take evolution die spiritually than do physically from smallpox.”⁹⁶ With no tolerance for ambiguity, Bryan transformed “every shade of gray into a dismal black or a dazzling white.”⁹⁷ In 1924, he told a California audience of Seventh Day Adventists, “All the ills from which America suffers can be traced back to the teaching of evolution. It would be better to destroy every book ever written, and save just the first three verses of Genesis.”⁹⁸

The mentality of the “one-hundred percent,”⁹⁹ who brooked no criticism or equivocation, manifested in a new breed of preacher. The vernacular style descended into the vulgar as Billy Sunday declared, “When the word of God says one thing and scholarship says another, scholarship can go to hell.”¹⁰⁰ A “Billy Sunday crusade would hit a town like the arrival of the Ringling Bros. circus, with Sunday performing in all three rings at once. The former Chicago Cubs outfielder would preach and pray, sing and shout, and leap across the stage delivering rapid-fire sermons before huge audiences.”¹⁰¹ In 1925, during a series of appearances in support of Tennessee’s proposed anti-evolution bill, Sunday brought in a total of 200,000 spectators, one-tenth of the state’s population.¹⁰²

But it was Bryan, the orator and Christian statesman, who lent weight and credence to the anti-evolution crusade. As a Progressive, he viewed the movement as one of democratic reform, an attempt to take control of educa-

92. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 24. See GEORGE WILLIAM HUNTER, A CIVIC BIOLOGY: PRESENTED IN PROBLEMS (1914), <http://www.gutenberg.org/files/39969/39969-h/39969-h.htm>.

93. SHIPLEY, *supra* note 10, at 352-54.

94. *Id.* at 251 (quoting Rev. J. W. Behnken).

95. GINGER, *supra* note 78, at 37 (quoting William Jennings Bryan).

96. *Id.*

97. *Id.* at 38.

98. SHIPLEY, *supra* note 10, at 254-55 (quoting William Jennings Bryan).

99. HOFSTADTER, *supra* note 28, at 119.

100. *Id.* at 122 (quoting Rev. Billy Sunday).

101. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 54.

102. *Id.* at 55.

tion away from the intellectual elite and place it securely in the hands of taxpaying parents. Bills prohibiting the teaching of evolution sprang up throughout the southern states. In Georgia, Kentucky and West Virginia, Bryan was there to help sway the vote, albeit unsuccessfully. Even when he was absent, his aura seemed to pervade the proceedings. In North Carolina, where a proposed anti-evolution bill failed after rancorous debate, journalist Nell Battle Lewis gave this memorable account:

Not since the Act of Secession was passed in 1861 had such a crowd stormed up the steps of the Capitol Members of the anti-evolution cohorts came to the leaders for last minute commands. About them all was a striking similarity of facial expression, a certain tightness and grimness of mouth, a zealous and fiery gleam of the eye, what, for want of a better term, might be called the Bryan look¹⁰³

In the North, campaigns against the teaching of evolution were not quite so heated or well organized. In Minnesota in 1922, Bryan, to no avail, implored the Legislature to expunge anti-scriptural and anti-scientific teachings from its tax-supported schools.¹⁰⁴ By 1923, however, the anti-evolution fight had already become regionalized to the South and West and only two minor measures had prevailed. Oklahoma forbade any public school textbook from teaching Darwinism versus the Biblical account of Creation.¹⁰⁵ Florida, Bryan's adopted home state, passed a nonbinding resolution declaring it improper to teach Darwinism, or any other theory linking man to lower forms of life, in its public schools.¹⁰⁶

In 1921, a Tennessee farmer named John Washington Butler learned of a young woman who had left the community to attend university. When she returned, she had taken up a belief in evolution and lost her faith in God. Worried about the corruption of his own children, Butler campaigned for the legislature the following year. As part of his platform he asserted the need for a law prohibiting the teaching of evolution in the state's public schools. Butler's draft of the bill, which was ultimately adopted, made it unlawful for any school, supported in whole or in part by State funds, to "teach any theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a

103. SHIPLEY, *supra* note 10, at 91 (quoting Nell Battle Lewis, *North Carolina*, AMERICAN MERCURY, May 1926).

104. SHIPLEY, *supra* note 10, at 311.

105. *Id.* at 335.

106. *Id.* at 137-38.

lower order of animals.”¹⁰⁷ The bill further provided that any teacher found violating the Act would be guilty of a misdemeanor and subject to a fine of no less than one hundred dollars and not more than five hundred dollars.¹⁰⁸

Although Bryan objected to the penalty provision of the proposed Butler Act, he breezed into Nashville to offer his support. The bill’s passage in 1925 owed more to a lack of vocal opposition than to a serious, committed effort on the part of lawmakers. The Butler Act, said Ray Ginger, “was prayer, prayer emerging from an overwhelming but vague anxiety.”¹⁰⁹ When Governor Austin Peay signed the bill into law, he doubted it would pose any particular threat to Tennessee’s teachers. “I can find nothing of consequence in the books now being taught in our schools with which this bill will interfere in the slightest manner,” he stated. “Probably, the law will never be applied.”¹¹⁰ Possibly, like many of the state’s legislators, the governor regarded the Act as largely symbolic. Still, Hunter’s *Civic Biology*, which endorsed evolution as a natural process, continued to be widely used in Tennessee’s schools. And although it could be argued, as the *Scopes* defense later would, that teaching Darwinism did not violate the Butler Act, such was not the way of fundamentalist thinking. As to whether the law would ever be applied, it might well have lain dormant, had not the American Civil Liberties Union thrown down the challenge.

In May 1925, John Thomas Scopes was summoned to Fred Robinson’s drug store in downtown Dayton, Tennessee. Scopes, age 24, taught general science and coached football at the local high school. Among those present at Robinson’s establishment was George Rappelyea, a mining engineer and transplanted New Yorker (Scopes assumed his accent was Cajun) who recognized in Scopes an independent thinker. Rappelyea also knew that Scopes had been filling in for the school’s regular biology teacher during his sick leave. In response to a comment by Rappelyea about evolution, Scopes took down a copy of Hunter’s *Civic Biology*, one of the textbooks supplied by Robinson to Rhea County’s schools. Said Scopes, “Rappelyea’s right, that you can’t teach biology without teaching evolution. This is the text and it explains evolution.”¹¹¹ Acknowledging that he had used the text in class, Scopes pointed to its evolutionary chart and its accompanying explanation. “Then you’ve been violating the law,” said Robinson.¹¹²

Rappelyea had seen an advertisement in the *Chattanooga News* in which the ACLU offered to sponsor a test case of the Butler Act. Robinson

107. 1925 Tenn. Pub. Acts, ch. 27.

108. *Id.* § 2.

109. GINGER, *supra* note 78, at 8.

110. *Id.* at 7 (quoting Governor Austin Peay).

111. JOHN T. SCOPES & JAMES PRESLEY, *CENTER OF THE STORM: MEMOIRS OF JOHN T. SCOPES* 59 (1967).

112. *Id.*

handed Scopes the newspaper and asked if he would be willing to become a defendant. Scopes could not recall if he had actually taught evolution but stood opposed to the Butler Act as a restraint on intellectual liberty. Further, unlike the regular biology teacher who had a family and would not consent to participate in a test case, Scopes was a bachelor with no dependents. After Scopes agreed to be indicted, Rappelyea wired the ACLU in New York and obtained their promise to assist in the defense. Scopes was never certain of Rappelyea's motives. Most likely, he thought, the test case was a ploy to drum up publicity, benefit local business, and "put Dayton on the map."¹¹³

IV. *STATE OF TENNESSEE V. SCOPES*

With characteristic modesty, Scopes described his role in the famous Monkey Trial as little more than sitting "proxylike, in freedom's chair."¹¹⁴ As soon as news reports spread word of his arrest, Scopes was approached by John Randolph Neal with an offer to represent him. Neal, a highly educated lawyer but a disheveled and disorganized individual, ran a private law school in Knoxville. The ACLU, deeming Neal acceptable as local counsel, was in full accord with his belief that academic freedom was the main issue in the case. Throughout the trial the defense would repeatedly argue that a legislature, speaking for a majority, cannot impose its own scientific and religious definitions and interpretations on teachers and students of public schools. At least one opponent of the Butler Act had condemned the illogic of lawmakers dictating what should and should not be taught in schools "as though it were possible to determine the truth by a vote of the people."¹¹⁵

Majoritarianism, however, was a cause near and dear to the heart of William Jennings Bryan. "The hand that writes the pay check rules the school," he decreed.¹¹⁶ Walter Lippmann remarked that the fact that Bryan viewed all men as equal before the eyes of God also meant that "all men are equally good biologists before the ballot box of Tennessee."¹¹⁷ Clarence Darrow witheringly dismissed Bryan's vaunted majority as "a sufficient number of people wrong at the same time and in the same way, who are sure they are right."¹¹⁸ The World's Christian Fundamentals Association, fearing that local attorneys would not be militant enough in defending the

113. *Id.* at 61.

114. SCOPES & PRESLEY, *supra* note 111, at 4.

115. SHIPLEY, *supra* note 10, at 261 (quoting Rev. E. Burdette Backus).

116. William Jennings Bryan, *ORTHODOX CHRISTIANITY VS. MODERNISM* (1923) at 46.

117. Walter Lippmann, *Should the Majority Rule?*, in *THE ESSENTIAL LIPPMANN: A POLITICAL PHILOSOPHY FOR LIBERAL DEMOCRACY* 11 (Clinton Rossiter & James Lare eds., 1982).

118. SHIPLEY, *supra* note 10, at 368 (quoting Clarence Darrow).

anti-evolution law, urged Bryan to appear on their behalf at the Scopes trial. The prosecution deemed it an honor to have Bryan join them. In that instant, the ACLU's hopes for a targeted constitutional attack on the Butler Act were dashed. Bryan's presence would all but ensure that "evolution would be on trial at Dayton, and pleas for individual liberty would run headlong into calls for majority rule."¹¹⁹

No sooner had Bryan entered the case when Clarence Darrow and Dudley Field Malone volunteered, free of charge, to help in the Scopes defense. Neal and Scopes were more than pleased to accept their offer; the ACLU was not. Malone, a Catholic who had obtained a divorce in France and married a suffragette, was "a swank international divorce lawyer with a passion for radical causes."¹²⁰ Darrow, a hugely successful labor lawyer had in mid-life reinvented himself as the greatest criminal trial attorney of his time. At 68, he was fresh from a stunning victory in the trial of Leopold and Loeb, saving two young sociopathic thrill-killers from the death penalty by painting them as victims of their heredity and environment.¹²¹ The ACLU, with a view toward taking the Scopes case to the U.S. Supreme Court, preferred a distinguished constitutional scholar on the order of Charles Evans Hughes. Scopes, unconvinced, stuck by Darrow. As the young teacher explained, "It was going to be a down-in-the-mud fight and I felt the situation demanded an Indian fighter rather than someone who had graduated from the proper military academy."¹²²

Darrow, fiercely agnostic, had earlier tangled with the fundamentalist Bryan in the pages of the *Chicago Tribune*. Bryan had composed a questionnaire aimed at exposing the fallacy of believing simultaneously in Christianity and evolution. Darrow responded with 55 questions of his own, designed to highlight the absurdity of ascribing literal truth to the Bible's every word. Ignored by Bryan, Darrow's questions would "lay fallow to crop up again, two years later, in an unforeseen context."¹²³ Scopes had little doubt that Darrow's overriding goal in going to Dayton was to "get Bryan."¹²⁴ Darrow's principal trial strategy lay in proving the truth of evolution. He assembled an array of expert witnesses, eight scientists in disciplines from geology and zoology to anthropology and psychology, three of whom sought to demonstrate that the theory of evolution could be reconciled with the Bible's account of creation. Among his four religious experts

119. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 100.

120. *Id.* at 101.

121. See Douglas Linder, *Famous American Trials: Illinois v. Nathan Leopold and Richard Loeb, 1924*, <http://law2.umkc.edu/faculty/projects/ftrials/leoploeb/leopold.htm> (last visited Jan. 18, 2016).

122. SCOPES & PRESLEY, *supra* note 111, at 70.

123. GINGER, *supra* note 78, at 32.

124. SCOPES & PRESLEY, *supra* note 111, at 82.

was Rabbi Herman Rosenwasser, a multilingual Hebrew Bible scholar who had traveled to Dayton on his own initiative. Once there, he impressed Darrow with his ability to show that the various versions and translations of Genesis were susceptible to differing interpretations, including one that allowed for evolution.

The only ACLU insider who consistently championed Darrow's participation in the case was Arthur Garfield Hays, an ardent free speech advocate. Hays served as the ACLU's chief counsel at the Scopes trial, scrupulously attending to the record to ensure that legal issues were preserved for appeal. Tom Stewart, a respected attorney general who would later represent Tennessee in the U.S. Senate, led the prosecution's team. Presiding Judge John T. Raulston was a publicity-seeking politician and elected office-holder who relished his role in the upcoming trial. A conservative Christian and lay preacher, he had "up to three weeks before presiding at the trial . . . conducted revival meetings at different points near Dayton."¹²⁵

The trial began on July 10, 1925. In the sweltering 90-degree heat visitors swarmed into town, a "collection of screwballs," said Scopes, "at odds with everybody else in the world over either politics or religion."¹²⁶ Bryan received a hero's welcome; Darrow slipped in more quietly. There were hawkers of hot dogs and lemonade and circus performers with chimpanzees. More than a hundred reporters arrived, along with twenty-two Western Union operators who would eventually send out two million words to the world concerning the events in Dayton. Radio station WGN provided history's first remote-control broadcast, transmitting messages via telephone line to Chicago and, from there, to the rest of the nation. In the Rhea County courthouse all seven hundred seats were taken while a crowd of three hundred more filled every available space in the windows, doors and aisles.

The proceedings began with a prayer. Darrow later objected to this daily religious ritual but Judge Raulston refused to dispense with it. Only in the final stages of trial did the judge consent to the removal of a ten-foot "Read Your Bible" banner from the outside wall of the courthouse. The jury, mostly middle-aged Baptist and Methodist farmers, would spend the greater part of the proceedings excluded from the courtroom during legal argument and would hear but a mere few hours of testimony. After the reading of the indictment, Neal, "[u]nwashed and unshaved as usual,"¹²⁷ offered a motion to quash the indictment on thirteen grounds. He cited various state constitutional free speech and establishment of religion violations as well as a denial of due process under the federal Constitution's 14th

125. SHIPLEY, *supra* note 10, at 204.

126. SCOPES AND PRESLEY, *supra* note 111, at 98-99.

127. LARSON, *SUMMER FOR THE GODS*, *supra* note 21, at 159.

Amendment. Hays continued the argument, charging that the indictment was too indefinite to give adequate notice to the defendant as to when he was committing a crime. Furthermore, said Hays, the Butler Act was unreasonable and called for an impermissible use of the State's police power. On the issue of indefiniteness chief prosecutor Stewart retorted, "You did not prepare a brief to defend [Scopes] on a charge of arson did you? He is not here for transporting liquor and he knows it."¹²⁸ Moreover, continued Stewart, the statute was compatible with the State's use of police power. "It is an effort on the part of the legislature to control and direct the expenditure of state funds, which it has the right to do."¹²⁹ Darrow spoke in support of the defense motion in his usual relaxed, conversational and almost offhand manner. "This was guise. His arguments were as carefully composed as a mural," cautioned Ray Ginger.¹³⁰ The Butler Act, declared Darrow, was a device to promote ignorance: "It makes the Bible the yard stick to measure every man's intellect, to measure every man's intelligence and to measure every man's learning."¹³¹ He warned of "the fires that have been lighted in America to kindle religious bigotry and hate."¹³² Darrow spoke for two hours, the courtroom completely silent "except for the clicking of the telegraph keys."¹³³ Judge Raulston reserved decision on the motion. He would later deny it in its entirety.¹³⁴

Stewart opened for the prosecution with a two-sentence statement. Scopes, he asserted, had violated the anti-evolution law by teaching that "mankind is descended from a lower order of animals. Therefore, he has taught a theory which denies the story of divine creation of man as taught by the Bible."¹³⁵ The prosecution's case consisted of a handful of witnesses—Fred Robinson, school superintendent Walter White, and two of Scopes's students from his general science class.¹³⁶ The boys were so reluctant to testify against their well-liked teacher that Scopes had to coax them

128. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Second Day, July 13, 1925) 69 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%202nd%20day.pdf>.

129. *Id.* at 67.

130. GINGER, *supra* note 78, at 106.

131. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Second Day, July 13, 1925) 84 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%202nd%20day.pdf>.

132. *Id.* at 87.

133. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 164 (quoting *Darrow Scores Ignorance and Bigotry Seeking to Quash Scopes Indictment*, N.Y. TIMES, July 14, 1925, at 1).

134. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Fourth Day, July 15, 1925) 100 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%203rd%20&%204th%20day.pdf>.

135. *Id.* at 112.

136. *Id.* at 119-33.

onto the witness stand. Darrow began the case for the defense by calling zoologist Maynard Metcalf.¹³⁷ He established Metcalf's considerable credentials as a scientist, teacher and long-time church member. With absolute certainty Metcalf stated that, although scientists might disagree as to the method by which it operates, evolution is a fact. He discussed the ways in which organisms change and develop over time, the physical evidence for evolution, the immense age of the earth, and the inclusion of humans in the evolutionary process. Stewart objected repeatedly throughout Metcalf's testimony.¹³⁸

Before the beginning of trial, Bryan had attempted in vain to procure expert scientific witnesses to refute the theory of evolution. Further consultation with Stewart and other members of the prosecution team convinced Bryan that a quick trial and a narrow legal strategy would serve them best. Precluding expert testimony by the defense would keep the court focused on the legislature's right to regulate the public schools and away from the issue of whether or not evolution was true. Expert evidence, however, was crucial to the defense—to prove the truth of evolution, to show that it did not conflict with the Biblical creation story, of which there was more than one version, to illustrate that science and theology can reasonably co-exist and, as Hays asserted, to show that man “came from a different genus but not a lower order of animals.”¹³⁹

Several members of the prosecution, including young William Jennings Bryan, Jr., argued in support of the motion to exclude expert evidence. Bryan, Sr. had been fairly quiet thus far, waving a palm leaf fan to dispel the tropical haze and looking curiously “deadpan.”¹⁴⁰ On his feet, the Commoner came to life, thundering against the teaching of evolution and concluding that the only purpose of the expert testimony was “to banish from the hearts of the people the Word of God as revealed.”¹⁴¹ Next, the elegantly-attired Dudley Field Malone, who never seemed to sweat, delivered a stirring call for intellectual freedom. He admonished the prosecution to “keep your Bible . . . but keep it where it belongs, in the world of your own conscience.”¹⁴² Why, he asked, did Bryan fear a discussion of the scientific evidence?

137. *Id.* at 133.

138. *Id.* at 133-43.

139. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Fourth Day, July 15, 1925) 155 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%205th%20day.pdf>.

140. SCOPES & PRESLEY, *supra* note 111, at 143.

141. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Fifth Day, July 16, 1925) 182 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%205th%20day.pdf>.

142. *Id.* at 185.

We are not afraid. Where is the fear? We meet it, where is the fear? We defy it, we ask your honor to admit the evidence as a matter of correct law, as a matter of sound procedure and as a matter of justice to the defendant in this case.¹⁴³

The crowd erupted in a roar of approval. “For these rustics delight in speechifying, and know when it is good,” observed Mencken.¹⁴⁴

To no avail, Judge Raulston ruled the expert evidence would “shed no light on the issues,”¹⁴⁵ and that the jury, on its own, could capably interpret the meaning of “descended from a lower order of animals.”¹⁴⁶ He would permit the experts to submit sworn affidavits summarizing their testimony for the record. The decision proved disappointing to J. W. Butler, author of the anti-evolution law, who was attending the trial as a special correspondent. “I’d like to have heard the evidence,” he commented. “It would have been right smart of an education to hear those fellows who have studied the subject.”¹⁴⁷ At the opening of trial the *Chattanooga News* had proclaimed, “The people of Tennessee, the south, even of the world, will become more familiar with the theory of evolution than they ever were before.”¹⁴⁸ Now, neither the world nor the jury would partake of this enlightenment. Darrow accepted the ruling with such ill-grace he was held in contempt, and later apologized to the court.¹⁴⁹

By the trial’s seventh day the newspapermen thought that little remained except for the “business of bumping off the defendant.”¹⁵⁰ Like sports writers deserting “a ball game at the seventh-inning stretch,”¹⁵¹ many left town or went in search of cooler pursuits. They would miss the “hilarious burlesque”¹⁵² staged by Darrow and Bryan in the trial’s penultimate moments. Raulston, fearing that the weight of the crowd had caused the ceiling to crack on the floor below, decided to move the proceedings out-

143. *Id.* at 188.

144. MICHAEL BURGAN, *THE SCOPES TRIAL: FAITH, SCIENCE, AND AMERICAN EDUCATION* 41 (2011) (quoting H. L. Mencken, *Malone the Victor, Even Though Court Sides with Opponents, Says Mencken*, BAL. EVENING SUN, July 17, 1925).

145. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Sixth Day, July 17, 1925) 203 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%206th%20&%207th%20days.pdf>.

146. *Id.*

147. GINGER, *supra* note 78, at 145 (quoting J. W. Butler).

148. GINGER, *supra* note 78, at 100.

149. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Seventh Day, July 20, 1925) 211-13, 225 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%206th%20&%207th%20days.pdf>.

150. GINGER, *supra* note 78, at 146 (quoting H. L. Mencken).

151. SCOPES AND PRESLEY, *supra* note 111, at 162.

152. GINGER, *supra* note 78, at 174.

side (Scopes suspected that the judge could no longer stand the “man-killing heat”).¹⁵³ On the courthouse lawn, some 3,000 spectators watched the trial participants gather on a raised wooden platform, “much like Punch and Judy puppets performing at an outdoor festival.”¹⁵⁴

For the defense, Hays called Bryan to the witness stand as an expert on the Bible. Startled but eager, Bryan agreed to be examined by Darrow. Armed with those fifty-five questions on Biblical interpretation that Bryan had previously evaded, Darrow “plucked the protective feathers from William Jennings Bryan, and twisted the head off his prestige, and flung him flopping to his onetime admirers.”¹⁵⁵ For an hour and a half Bryan struggled mightily to answer the unanswerable. Did he really believe that a big fish had swallowed Jonah and kept him in its belly for three days? “I believe in a God who can make a whale and can make a man and make both do what He pleases,” said Bryan.¹⁵⁶ If Joshua commanded the sun to stand still, would it not have turned the earth “into a molten mass of matter?”¹⁵⁷ If God condemned the serpent of Eden to crawl on its belly after tempting Eve, how did it walk before? On its tail?¹⁵⁸

Darrow plumbed the depths of Bryan’s ignorance of geology, of the world’s religions, of the fact that ancient civilizations seemed to pre-date the age of the earth as determined by the fundamentalists. Bryan accused Darrow of coming to Dayton to “try revealed religion” and of insulting the people of Tennessee.¹⁵⁹ Darrow shot back, “You insult every man of science and learning in the world because he does not believe in your fool religion.”¹⁶⁰ Stewart made strenuous efforts to halt the interrogation but, as Bryan was keenly disposed to continue, Judge Raulston deferred to him. “Did you ever discover where Cain got his wife?” asked Darrow. “No, sir,” answered Bryan. “I leave the agnostics to hunt for her.”¹⁶¹ The following bit of banter concerned how the Biblical date of the flood, 4004 B.C., was arrived at:

[Bryan] A—I never made a calculation.

153. *Id.* at 164.

154. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 4.

155. GINGER, *supra* note 78, at 167.

156. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Seventh Day, July 20, 1925) 285 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%206th%20&%207th%20days.pdf>.

157. *Id.* at 287.

158. *Id.* at 304.

159. *Id.* at 288.

160. *Id.*

161. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Seventh Day, July 20, 1925) 302 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%206th%20&%207th%20days.pdf>.

[Darrow] Q—A calculation from what?

[Bryan] A—I could not say.

[Darrow] Q—From the generations of man?

[Bryan] A—I would not want to say that.

[Darrow] Q—What do you think?

[Bryan] A—I do not think about things I don't think about.

[Darrow] Q—Do you think about things you do think about?

[Bryan] A—Well, sometimes.¹⁶²

The debacle ended when court adjourned for the day. On the following morning, Judge Raulston barred further questioning of Bryan and expunged his testimony from the record.¹⁶³ Darrow had no more witnesses and asked the court to instruct the jury to find the defendant guilty.¹⁶⁴ Stewart aided him by explaining to the jurors, “What Mr. Darrow wanted to say to you was that he wanted you to find his client guilty, but did not want to be in the position of pleading guilty, because it would destroy his rights in the appellate court.”¹⁶⁵ It took all of nine minutes to bring in a conviction.¹⁶⁶ Scopes spoke briefly at his sentencing, calling the statute “unjust” and vowing to “oppose this law in any way I can.”¹⁶⁷ The fine of \$100 was imposed by Judge Raulston and not, as required by state law, by the jury. Raulston assured the parties that local practice permitted judges to impose the penalty in misdemeanor cases.¹⁶⁸ Darrow consented to the procedure, a decision that would later come back to haunt the defense.

William Jennings Bryan died within a week of the trial's conclusion, of apoplexy in his sleep after consuming a heavy meal. Said Hays, “Had

162. *Id.* at 287.

163. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Eighth Day, July 21, 1925) 305 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%208th%20day%20&%20bryan%20speech.pdf>.

164. *Id.* at 311.

165. *Id.* at 312.

166. *Id.* at 312-13.

167. *Id.* at 313.

168. THE WORLD'S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Eighth Day, July 21, 1925) 312 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%208th%20day%20&%20bryan%20speech.pdf>.

this happened to Darrow, Tennessee would have regarded it as a judgment of God. As it was, Bryan was gathered to the angels.”¹⁶⁹ Rather than seeming shattered by Darrow’s inquisition, Bryan in his final days kept up a punishing pace of travel and speechmaking, promising to intensify his anti-evolution crusade. Asked whether Bryan “died of a broken heart because of [his] questioning,” Darrow responded, “Broken heart nothing; he died of a busted belly.”¹⁷⁰

Both the modernists and the fundamentalists claimed victory at Dayton. Much of the local and national press equivocated as to the trial’s significance and future impact. Hays seemed optimistic about the appeal although he privately admitted that “perhaps I have become over-convinced by the brief I have written.”¹⁷¹ On appeal, Hays’s finely wrought constitutional arguments and Darrow’s pleas for educational freedom met with such staunch majoritarianism on the part of the state that it “would have made the Commoner blush.”¹⁷² Tennessee’s lawyers proclaimed in their brief, “What the public believes is for the common welfare must be accepted as tending to promote the common welfare, whether it does in fact or not.”¹⁷³ The Tennessee Supreme Court overturned the conviction, but not before disposing of Scopes’ principal contentions about religious preference and individual liberty.

To begin with, said Tennessee’s highest court, the statute in question was neither “uncertain in its meaning nor incapable of enforcement.”¹⁷⁴ Furthermore, as a contractual employee of the Rhea County public schools, Scopes was bound by the state’s power to prescribe “what kind of work shall be performed in its service [and] what shall be taught in its schools.”¹⁷⁵ Since the Butler Act applied only to public servants acting in their official capacities, it could not be said to abridge individual liberties. As Stewart had argued at trial, Scopes was free to expound his theories “on the street corners”¹⁷⁶ without interference, but not in a publicly financed institution. As to whether the anti-evolution law gave preference to any religious establishment, the state supreme court noted that the Butler Act

169. ARTHUR GARFIELD HAYS, LET FREEDOM RING 79 (1937).

170. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 199-200 (quoting Darrow).

171. *Id.* at 213 (quoting Letter of Arthur Garfield Hays to Walter Nelles, Sep. 9, 1925 in ACLU archives vol. 274).

172. *Id.*

173. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 214 (citing Reply Brief and Argument for the State of Tennessee, *Scopes v. Tennessee*, 154 Tenn. 105 at 380 (1926)).

174. *Scopes v. Tennessee*, 289 S.W. 363, 364 (Tenn. 1927).

175. *Id.* at 366.

176. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Second Day, July 13, 1925) 67 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%202nd%20day.pdf>.

“requires the teaching of nothing. It only *forbids* the teaching of the evolution of man from a lower order of animals.”¹⁷⁷

Nevertheless, the Tennessee Supreme Court reversed the conviction on the grounds that, under state law, the jury, not the trial judge, was authorized to set the fine. The court concluded, “We see nothing to be gained by prolonging the life of this bizarre case.”¹⁷⁸ Better to have the government declare a *nolle prosequi* and conserve the “peace and dignity of the state.”¹⁷⁹ Tennessee’s attorney general duly declined to prosecute the matter further, removing any cause for subsequent appeal. It was a “clever maneuver,” explained Larson, “to end the embarrassing case without overturning the locally popular law.”¹⁸⁰ Thus did the Trial of the Century pass simultaneously into history and legal oblivion.

John T. Scopes resisted lucrative offers to lecture on the vaudeville circuit and became a petroleum engineer. Thanks to a scholarship fund raised by the defense’s expert witnesses, he began his Ph.D. studies in geology at the University of Chicago. When the money ran out, he applied for one of the school’s science fellowships. The endowment administrator informed Scopes in writing that his name was being withdrawn from consideration. “As far as I am concerned,” said this “prominent educator” at one of America’s most prestigious universities, “you can take your atheistic marbles and play elsewhere.”¹⁸¹ Scopes lived to see the Butler Act repealed in 1967.

V. RELIGION AND EVOLUTION AFTER *SCOPES*

Following the Scopes trial and Bryan’s ‘martyrdom,’ evangelical leaders “rushed to pick up the fallen mantle, loosing a frenzy of uncoordinated and often localized legal activity”¹⁸² to thwart the teaching of evolution. In 1927, Texas Governor Miriam Ferguson ordered the state’s Textbook Commission to expunge evolution from all public school texts. Louisiana followed suit, and North Carolina had already taken such steps prior to *Scopes*. Local prohibitions against teaching evolution sprouted across the U.S. But in the waning decade of the 1920s, it was legislative action that the anti-Darwin zealots craved. Anti-evolution bills were introduced in Georgia, Texas, and eighteen other geographically scattered states. Only in Mississippi and Arkansas did the crusaders’ efforts ultimately prove successful.

177. *Scopes*, 289 S.W. at 367 (emphasis in the original).

178. *Id.*

179. *Id.* *Nolle Prosequi* is Latin for “I shall no longer prosecute.”

180. LARSON, SUMMER FOR THE GODS, *supra* note 21, at 220.

181. SCOPES & PRESLEY, *supra* note 111, at 240.

182. LARSON, TRIAL AND ERROR, *supra* note 31, at 75.

Mississippi, “the most rural, and perhaps the most Democratic, state in the Union,”¹⁸³ paid homage to Bryan’s legacy by moving to proscribe the teaching of evolution in its public schools. As in Tennessee, teaching that “mankind ascended or descended from a lower order of animals” constituted a misdemeanor, but the new bill omitted reference to the Biblical creation.¹⁸⁴ Rev. T. T. Martin—Bryanite, founder of the Bible Crusaders, and author of *Hell and the High Schools: Christ or Evolution, Which?*—led the charge.¹⁸⁵ The opposition, such as it was, lacked the wealthy backing and cohesion of the fundamentalists’ “six aggressive lobbyists.”¹⁸⁶ One state legislator, averring that a majority of House members opposed the bill, conceded that when put to the vote, “conscience would give way to public opinion.”¹⁸⁷ Arkansas, equally driven by popular sentiment, enacted an identical anti-evolution law by means of a ballot initiative. An astonishing two-thirds of the state’s voters approved it, many of them religious but not necessarily fundamentalists.¹⁸⁸ The citizens of Arkansas may have “heard America laughing,”¹⁸⁹ but from his heavenly perch, the Commoner must have crowed to hear such a rousing chorus sung by the *vox populi*.

Throughout America, high school biology texts were virtually washed clean of evolution. Tied to the purse strings of school district administrators, textbook publishers obligingly erased Darwin’s image, substituted the term “development” for “evolution” or omitted it altogether, and deleted mention of natural selection.¹⁹⁰ A revised edition of Hunter’s *A Civic Biology* appeared the year after the Scopes Trial.¹⁹¹ This new edition no longer used the word “evolution,” and removed most references to recognizably evolutionary concepts.¹⁹² The ensuing thirty-year “lull in anti-evolution activity”¹⁹³ was due mainly to the fact that, in much of public school education, evolution had become a non-issue. Moreover, there were no further test cases or overt efforts to enforce the law in those states with anti-

183. *Id.* at 76.

184. Alvin W. Johnson, Frank H. Yost: SEPARATION OF CHURCH AND STATE IN THE UNITED STATES (1934) at 173, citing HEMINGWAY’S ANNOTATED MISSISSIPPI CODE, §9493, (1917).

185. T. T. MARTIN, HELL AND THE HIGH SCHOOLS: CHRIST OR EVOLUTION, WHICH? (1923), http://darrow.law.umn.edu/documents/Hell_and_the_High_Schools_OCR_Opt.pdf.

186. SHIPLEY, *supra* note 10, at 66.

187. LARSON, TRIAL AND ERROR, *supra* note 31, at 78.

188. *Id.* at 118.

189. *Id.* at 79.

190. *Id.* at 87-88.

191. GEORGE WILLIAM HUNTER, NEW CIVIC BIOLOGY: PRESENTED IN PROBLEMS (1926), <https://archive.org/details/newcivicbiology00hunt>.

192. See, e.g., *id.* at 250-51 (renaming as “Development of Man” a section originally labeled “Evolution of Man”).

193. LARSON, TRIAL AND ERROR, *supra* note 31, at 88.

evolution statutes. Darwinian theory continued to be taught at colleges and universities, but the scientific community demonstrated a “large-scale failure”¹⁹⁴ to address the teaching of evolution in the nation’s secondary schools.¹⁹⁵

The creationists, meanwhile, soldiered on. From the late nineteenth century until well into the twentieth, creationists bickered over the age of the earth and whether Genesis could be read to allow for organic evolution over vast stretches of time (Adam and Eve, as the products of “supernatural origin,”¹⁹⁶ continued to be exempt from evolutionary considerations). Unlike “old earth” adherents, creation scientists “compress[ed] the history of life on earth into less than ten thousand years.”¹⁹⁷ The fossil record, they asserted, was formed by the Genesis flood and its aftermath, with all of earth’s plants and animals having co-existed prior to the deluge. Whether they ascribed to “young earth” or “old earth” paradigms, a fair number of latter twentieth century creationists held advanced degrees in science. In 1963, five of the ten founders of the Creation Research Society had earned doctorates in biology from recognized universities while two others held engineering or science Ph.Ds. “Not surprisingly,” said historian Ronald Numbers, “these scientifically credentialed creationists frequently enlisted scientific arguments to support their views. But to a man they embraced creationism primarily from religious conviction.”¹⁹⁸

In the Cold War era, Soviet advances in nuclear weapons development and space exploration technology forced a resurgence of American science education. Funded by the National Science Foundation in 1958, the Biological Science Curriculum Study (BSCS) revised high school textbooks, boldly endorsing evolution and reforming domestic science instruction.¹⁹⁹ Overcoming state and local opposition, BSCS texts secured a foothold in the secondary schools.²⁰⁰ At the same time, government expenditures for scien-

194. *Id.* at 88 (quoting Judith V. Grabner & Peter D. Miller, *Effects of the Scopes Trial*, 185 Science 832, 837 (1974)).

195. *See McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1259 (E.D. Ark. 1982) (“Between the 1920’s and early 1960’s, anti-evolutionary sentiment had a subtle but pervasive influence on the teaching of biology in public schools. Generally, textbooks avoided the topic of evolution and did not mention the name of Darwin.”).

196. RONALD L. NUMBERS, *THE CREATIONISTS* 7 (Expanded Ed. 2006).

197. *Id.* at 8.

198. *Id.* at 9.

199. *See Biological Sciences Curriculum Study (1971)*, NAT’L CTR. FOR SCI. EDUC., <http://ncse.com/media/voices/biological-sciences-curriculum-study-1971> (last visited Feb. 9, 2016) (“It is no longer possible to give a complete or even a coherent account of living things without the story of evolution.”) (quoting both the 1963 and 1970 editions of the *BIOLOGY TEACHERS’ HANDBOOK*).

200. *See BSCS: A SCIENCE EDUCATION CURRICULUM STUDY*, <http://www.bsccs.org/our-values> (last visited Feb. 9, 2016) (“it is in no sense an overstate-

tific research and development soared to seven and a half billion dollars in 1960, 1.5 percent of the gross national product.²⁰¹ Mounting pressure for demonstrable progress in science research and education, coupled with increasing public responsiveness to scientific opinion, “shattered the thirty-year truce in legal activities enveloping the anti-evolution issue.”²⁰² On the question of evolution’s rightful place in public education the courts were, once again, open for business. In the ensuing decades of constitutional wrangling, the anti-evolutionists displayed remarkable resilience. With each legal setback they regrouped and reworked their tactics to surmount constitutional constraints, a study in adaptation.

VI. ANTI-EVOLUTION AND THE FIRST AMENDMENT

The First Amendment to the U.S. Constitution provides that Congress “shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.”²⁰³ Known respectively as the “Establishment” and “Free Exercise” clauses, the two halves of the amendment are not necessarily harmonious. Some scholars assert they were meant to be read as “correlative and unitary,”²⁰⁴ as “representing only different facets of the single great and fundamental freedom.”²⁰⁵ Others say that the concept of religious freedom defines the limits of constitutional church-state separation.²⁰⁶ Leo Pfeffer held that “separation guarantees freedom and freedom requires separation”²⁰⁷ and courts need not consider “which clause is superior and which subordinate.”²⁰⁸

In 1963, Justice William Brennan noted that a strict application of the Establishment Clause “might seriously interfere with certain religious liberties also protected by the First Amendment.”²⁰⁹ Thus, without government funding for chaplains in prisons and the armed services, certain individuals would be denied free access to clergy and the right of religious worship. The creationists routinely conjured free exercise claims when arguing that

ment to say that BSCS assumed responsibility for putting evolution back into high school biology.”).

201. LARSON, TRIAL AND ERROR, *supra* note 31, at 90.

202. *Id.* at 91.

203. U.S. CONST. amend. I.

204. Leo Pfeffer, *Freedom and/or Separation: The Constitutional Dilemma of the First Amendment*, 64 MINN. L. REV. 561, 565 (1980).

205. *Everson v. Bd. of Educ.*, 330 U.S. 1, 40 (1947) (Rutledge, J., dissenting).

206. See, e.g., Wilbur Katz, *Freedom of Religion and State Neutrality*, 20 U. CHI. L. REV. 426 (1953).

207. Pfeffer, *supra* note 204, at 564.

208. *Id.* at 583.

209. *Sch. Dist. of Abington Twp., Pa. v. Schempp*, 374 U.S. 203, 296 (1963) (Brennan, J., concurring).

teaching only evolution offended their faith in divine origins. In the course of litigation over evolution and public education, the Establishment Clause became a “bulwark for evolutionary teaching, and the Free Exercise Clause invoked for teaching creationism.”²¹⁰ These relative positions were already well entrenched in Bryan’s day. In the 1920s, Maynard Shipley accused fundamentalists of subverting constitutional government in their haste to forge a “union of church and state.”²¹¹

In 1947, the U.S. Supreme Court, in *Everson v. Board of Education*,²¹² upheld the Establishment Clause in ringing, unequivocal tones. The “wall between church and state . . . must be kept high and impregnable,”²¹³ proclaimed the Court. Neither the state nor federal government can establish a church, give aid or preference to one religion over another, interfere with or punish a person’s religious beliefs, or levy a tax in support of religious institutions.²¹⁴ Never before had the Court so strongly affirmed the concept of government neutrality with respect to religion. As Supreme Court Justice Joseph Story had interpreted it in the nineteenth century, the Establishment Clause was intended to “exclude all rivalry among Christian sects, and to prevent any national ecclesiastical establishment.”²¹⁵ In the decades since *Everson*, legal activism by sectarian groups—anti-evolutionists among them—has altered the debate on First Amendment issues. Courts formerly preoccupied with “protecting religion from intrusions by the state” are now concerned with “protecting the state from intrusions by religion.”²¹⁶

One of *Everson*’s signal impacts was to extend federal religious freedom guarantees to the states by operation of the Fourteenth Amendment.²¹⁷ At the time of *Scopes*, states framed their own constitutional provisions governing secular and religious separation. In 1920s Tennessee, the church-state barrier is said to have functioned less like a wall and “more like a

210. LARSON, TRIAL AND ERROR, *supra* note 31, at 93.

211. SHIPLEY, *supra* note 10, at 22.

212. *Everson v. Bd. of Educ.*, 330 U.S. 1 (1947).

213. *Id.* at 18.

214. *Id.* at 15-16. *Everson* concerned a taxpayer-funded transportation program serving Catholic as well as public school students. Given the Court’s unstinting language in support of First Amendment guarantees, its holding came as a surprise. Writing for the majority, Justice Hugo Black characterized the bus fare statute as a form of “public welfare” (*Id.* at 16), a safe and expeditious means for getting children, regardless of their religion, to and from school. Black concluded that the legislation’s secular purpose and its equal treatment of religion posed no breach of church-state separation. *Id.* at 18.

215. JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES 701 (1833).

216. Susan Haack, *Cracks in the Wall, A Bulge under the Carpet: The Singular Story of Religion, Evolution, and the U.S. Constitution*, 57 WAYNE L. REV. 1303, 1320 (2011).

217. *Everson*, 330 U.S. at 15.

door.²¹⁸ In 1968, in *Epperson v. Arkansas*,²¹⁹ the U.S. Supreme Court relied on state and federal Establishment and Free Exercise clauses to overturn the 1928 Arkansas anti-evolution law.²²⁰ Modeled on Tennessee's 1925 statute, the law, said the Court, was undeniably the product of "fundamentalistic sectarian conviction."²²¹ As such, its proscription against teaching scientific theory and doctrine rested on a rationale plainly inconsistent with the First Amendment.²²² In 1970, the Mississippi Supreme Court toppled its state's anti-evolution law as unconstitutional.²²³

Anti-evolution statutes were as dead as dinosaurs. But a promising new route of creationist attack had earlier appeared in the guise of a school prayer case, *School District of Abington Township, Pa. v. Schempp*.²²⁴ Petitioner Madalyn Murray and her son, William, were avowed atheists. They argued that daily mandatory prayer and Bible readings at William's public school violated his right to disbelieve.²²⁵ In striking down the school's religious practices, Justice Tom C. Clark stated that "to withstand the strictures of the Establishment Clause there must be a secular legislative purpose and a primary effect that neither advances nor inhibits religion."²²⁶ At the same time, he added, "the state may not establish a 'religion of secularism' in the sense of affirmatively opposing or showing hostility to religion, thus 'preferring those who believe in no religion over those who do believe.'"²²⁷ These sentiments resonated with California mother and Baptist Nell J. Segraves. In 1963, she petitioned the California State Board of Education, claiming that the teaching of evolution infringed upon her son's right to believe.²²⁸ Segraves failed on that score, but her notion of requiring equal time for creationism in the public school biology curriculum soon caught fire.

The concept of demanding parity originated in broadcasting law, which for decades granted equal time to opposing political candidates to air their views.²²⁹ Equal time for creationists appealed to an American sense of

218. Jeffrey P. Moran, *Introduction: The Scopes Trial and Modern America*, in *THE SCOPES TRIAL: A BRIEF HISTORY WITH DOCUMENTS* 34 (2002).

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

220. *Id.* at 103, 106.

221. *Id.* at 108.

222. *Id.* at 107.

223. *Mississippi v. Smith*, 242 So. 2d 692, 698 (Miss. 1970).

224. *Sch. Dist. of Abington Twp., Pa. v. Schempp*, 374 U.S. 203 (1963).

225. *Id.* at 211-12.

226. *Id.* at 222.

227. *Id.* at 225.

228. NUMBERS, *supra* note 196, at 243-44.

229. See LARSON, *TRIAL AND ERROR*, *supra* note 31, at 97; Sue Wilson, *FCC: No More Equal Time Requirements for Political Campaign Supporters Over Our Public Air-*

fairness, as well as sounding “more politically moderate and centrist”²³⁰ than broad attacks on evolution. In the 1970s, equal-time bills were introduced in twelve states, and creationist texts were adopted in six states.²³¹ The U.S. Supreme Court decided *Lemon v. Kurtzman*²³² in 1971. A landmark case whose reasoning strongly vindicated science and evolution, *Lemon* devised a three-pronged test for determining whether a statute had violated the Establishment Clause: 1) the statute must have a secular purpose; 2) its primary effect must be neither to advance nor inhibit religion; and 3) it must not foster excessive government entanglement with religion.²³³ A violation of any one of the three prongs rendered the state action unconstitutional. The “Lemon test,” as it came to be known, did not derail the anti-evolution crusade. It merely induced it to become more resourceful.

Six years after repealing the Butler Act,²³⁴ Tennessee was once more in the forefront of looking backward. In 1973, the state passed a law prohibiting the use of public school biology textbooks unless they “specifically stat[ed]” that the theory of human origins “is a theory as to the origin and creation of man and his world and is not represented to be scientific fact.”²³⁵ The Tennessee Legislature made its equal time intentions clear in providing that any textbook

which expresses an opinion or relates to a theory or theories shall give in the same textbook and under the same subject commensurate attention to, and an equal amount of emphasis on, the origins and creation of man and his world as the same is recorded in other theories, including but not limited to, the Genesis account in the Bible.²³⁶

While the measure neither banned the teaching of evolution nor endorsed scientific creationism, it was challenged immediately. In 1975, the U.S. Court of Appeals for the Sixth Circuit ruled Tennessee’s “legislative effort to suppress the theory of evolution” patently unconstitutional under *Epperson v. Arkansas* and *Lemon v. Kurtzman*.²³⁷ The Sixth Circuit ob-

waves, HUFFINGTON POST, May 15, 2014, http://www.huffingtonpost.com/sue-wilson/fcc-no-more-equal-time-re_b_5332812.html (noting the demise of the equal time rule).

230. EDWARD CAUDILL, INTELLIGENTLY DESIGNED 64 (2013).

231. *Id.*

232. *Lemon v. Kurtzman*, 403 U.S. 602 (1971).

233. *Id.* at 612-13.

234. 1967 Tenn. Pub. Act, ch. 237 (repealing the Butler Act, then denominated TENN. CODE ANN. § 49-1922 (1967)).

235. 1973 Tenn. Pub. Act, ch. 377, § 1.

236. *Id.*

237. *Daniel v. Waters*, 515 F.2d 485 (6th Cir. 1975); see *Epperson v. Arkansas*, 393 U.S. 97 (1968); *Lemon v. Kurtzman*, 403 U.S. 602 (1971).

served at the outset that Tennessee's purpose of promoting the Biblical creation story over Darwinian theory was "as clear in the 1973 statute as it was in the statute of 1925."²³⁸ Further, the 1973 law's advancement of religion was made plain by the fact that, while it required textbooks teaching evolution to contain a disclaimer, it required the inclusion of the Genesis story without such disclaimer.²³⁹

The "transmogrification of creationism from religion to science"²⁴⁰ had begun in earnest. By the late 1970s, the Institute for Creation Research had "recruited a core of scientists and supporters to the cause and proceeded to spread the word that scientific evidence supported creationism."²⁴¹ In 1971, three years after the U.S. Supreme Court had invalidated the Arkansas law prohibiting the teaching of evolution, the state legislature struck again.²⁴² A new statute mandated public schools to "give balanced treatment to creation-science and to evolution-science."²⁴³ In the federal case challenging the law, *McLean v. Arkansas*, U.S. District Judge William Overton took special note of the diverse religious backgrounds of the plaintiffs.²⁴⁴ His examination of the statute's legislative history unmasked it as "a religious crusade"²⁴⁵ and "an effort to introduce the Biblical version of creation into the public school curricula."²⁴⁶ Defining the essential characteristics of science as testable and falsifiable,²⁴⁷ Overton concluded that "[s]ince creation science is not science . . . the *only* real effect of [the balanced treatment statute] is the advancement of religion."²⁴⁸

Louisiana's Creationism Act, forbidding the teaching of evolution unless accompanied by instruction in creation science, fared no better. The U.S. Supreme Court, in *Edwards v. Aguillard*, struck down the law as violating the Establishment Clause.²⁴⁹ The intent of the legislation, wrote Jus-

238. *Daniel*, 515 F.2d at 486.

239. *Id.* at 489.

240. NUMBERS, *supra* note 196, at 271.

241. LARSON, TRIAL AND ERROR, *supra* note 31, at 150.

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

243. Ark. Stat. 1981, Act 590, entitled the "Balanced Treatment for Creation-Science and Evolution-Science Act," codified as ARK. CODE ANN. § 80-1663, et seq. (Supp. 1981).

244. *McLean v. Arkansas*, 529 F. Supp. 1255, 1256 (1982) (noting that, in addition to science educators, those protesting the Act included representatives of United Methodist, Episcopal, Roman Catholic, African Methodist Episcopal, and Presbyterian churches, as well as Jewish organizations.).

245. *Id.* at 1261.

246. *Id.* at 1264.

247. *Id.* at 1267.

248. *Id.* at 1272.

249. *Edwards v. Aguillard*, 482 U.S. 578 (1987) (declaring unconstitutional Louisiana's "Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction" Act (Creationism Act), LA. REV. STAT. ANN. §§ 17:286.1-17:286.7 (West 1982)).

tice William Brennan, “was clearly to advance the religious viewpoint that a supernatural being created mankind.”²⁵⁰ The very term, “creation science,” said Brennan, embodies this particular religious belief, one that was approved by the legislature as clearly “antagonistic to the theory of evolution.”²⁵¹

In 1999, Louisiana’s anti-evolution efforts again ran into a federal court roadblock, this time over a disclaimer to be read in classrooms prior to beginning lessons in evolution. The Tangipahoa Parish Board of Education resolved that students were to be advised that the teaching of evolution was not meant to “influence or dissuade the Biblical version of Creation” and were urged to form their own opinions as to life’s origins.²⁵² In *Freiler v. Tangipahoa Parish Board of Education*, the U.S. Court of Appeals for the Fifth Circuit concluded that the disclaimer impermissibly advanced religion.²⁵³ In Georgia, the Cobb County Board of Education voted to paste a sticker on biology and science textbooks warning readers that evolution is a theory and not a fact, and that students should approach the origin of life critically and with an open mind.²⁵⁴ The U.S. District Court ruled that, although the sticker had a secular purpose in fostering critical thinking, it conveyed an impermissible endorsement of a religious viewpoint.²⁵⁵

Prosecutor Tom Stewart’s contention in *Scopes* was now reversed: Creationists could freely expound their theories “on street corners” if they chose to, but not in the public schools.²⁵⁶ Edward Larson has observed that legal controversies represent only the tip of the anti-evolution iceberg.²⁵⁷ Beneath the surface and throughout the states “numerous local school

250. *Id.* at 591.

251. *Id.* at 593.

252. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337, 341 (5th Cir. 1999) (quoting school board resolution).

253. *Id.* at 348.

254. *Selman v. Cobb Cty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1292 (N.D. Ga. 2005), *vacated and remanded*, 449 F.3d 1320 (11th Cir. 2006) (quoting the text of the sticker: “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.”)

255. *Selman v. Cobb Cty. Sch. Dist.*, 390 F. Supp. 2d at 1302, 1312. On appeal, the U.S. Court of Appeals for the Eleventh Circuit remanded the case for further findings of fact. *Selman v. Cobb Cty. Sch. Dist.*, 449 F.3d at 1338. The school district settled the case in 2006 by stipulating that it would neither authorize any anti-evolution or pro-intelligent design disclaimers nor delete any material about evolution from the text. The school district also agreed to pay \$166,659 towards plaintiffs’ attorney fees in the case. Edward J. Larson, *Teaching Creation, Evolution, and the New Atheism in 21st Century America: Window on an Evolving Establishment Clause*, 82 Miss. L.J. 997, 1026 (2013).

256. *See supra* text accompanying note 176.

257. LARSON, TRIAL AND ERROR, *supra* note 31, at 146.

boards and countless individual teachers²⁵⁸ pursue creationist agendas, outside of the law and often in environments already hospitable to anti-Darwinism.²⁵⁹ Still, the lure of finding a legally defensible alternative to evolution has proved irresistible to fundamentalist opponents of Darwin. Ideally, this new theory would attract a wide cultural and political audience and sport the trappings of science without arousing too much attention by the scientific community. After all, Bryan succeeded by courting the masses, “not when he fought intellectuals.”²⁶⁰ Intelligent Design (ID), with its careful avoidance of overt allusions to God or Genesis, seemed to fit the bill, a way for creationists “to squeeze into science classrooms . . . by shedding superfluous biblical weight.”²⁶¹ Creationists were not at all enamored of the way in which ID seemed to marginalize biblical precepts, but touting it was their only way of “mounting a united attack against Darwinism.”²⁶²

Perhaps not surprisingly, one of ID’s chief proponents was a University of California Berkeley law professor, Phillip E. Johnson. Author of the popular and controversial *Darwin on Trial*, Johnson, along with most creationists, deplored Darwinian thinking because of its reliance on scientific materialism.²⁶³ At its most rigorous, scientific materialism is defined as

the idea that the only reality is the physical matter of the universe, and that everything else, including thoughts, will and emotions, comes from physical laws acting on that matter . . . Darwinism tells us that, like all species, human beings arose from the working of blind, purposeless forces over eons of time.²⁶⁴

Philosopher of science Robert Pennock employed the term *methodological naturalism* to refer to the process by which scientists seek to examine our world.²⁶⁵ Science does not aim to disprove the existence of God, but merely “excludes appeal to supernatural entities as a point of method.”²⁶⁶

258. *Id.*

259. NUMBERS, *supra* note 196, at 2.

260. CAUDILL, *supra* note 230, at 72.

261. NUMBERS, *supra* note 196, at 71.

262. *Id.* at 377.

263. PHILIP E. JOHNSON, *DARWIN ON TRIAL*. The book has been published in 3 editions: 1991, 1993, and 2010, and claims to have sold over 250,000 copies. Reviews within the scientific community have been sharply critical. *See, e.g.*, Stephen Jay Gould, *Impeaching a Self-Appointed Judge*, 63 SCI. AM. 118, 119 (1992) (stating that the book contained “no weighing of evidence, no careful reading of literature on all sides, no full citation of sources (the book does not even contain a bibliography) and occasional use of scientific literature only to score rhetorical points.”).

264. COYNE, *supra* note 14, at 224.

265. ROBERT T. PENNOCK, *TOWER OF BABEL* 191 (1999).

266. *Id.* at 325.

Neither theistic nor atheistic, evolutionary science is agnostic in positioning God “as a possibility that is outside the boundary of its methods of investigation.”²⁶⁷

Phillip E. Johnson found this intermediate stance deeply unsatisfactory. To him, the debate about evolution was a war between two irreconcilable worldviews, the holy and the godless.²⁶⁸ Johnson’s plan of attack on Darwin, known as the “Wedge Strategy,” was devised in conjunction with the Discovery Institute’s Center for the Renewal of Science and Culture.²⁶⁹ The core proposition is that “human beings are created in the image of God,” and that Darwin, along with Marx and Freud, was responsible for replacing this “bedrock principle[]” with a materialistic ethos that “portrayed humans not as moral and spiritual beings, but as animals or machines who inhabited a universe ruled by purely impersonal forces and whose behavior and very thoughts were dictated by the unbending forces of biology, chemistry, and environment.”²⁷⁰ Envisioning scientific materialism as “a giant tree,” Johnson proposed to use his wedge strategy to split it “at its weakest points.”²⁷¹ Intelligent Design theory, announced Johnson, “promises to reverse the stifling dominance of the materialist worldview, and to replace it with a science consonant with Christian and theistic convictions.”²⁷²

In the late eighteenth and early nineteenth centuries, philosopher and clergyman William Paley, drawing on the work of Thomas Aquinas, had declared that the beauty and perfection of nature’s adaptations proved the existence of God. In Paley’s view, “[i]f . . . we find a watch, we necessarily infer a watchmaker; therefore, the contrivances of nature are conclusive evidence for the existence of their Creator.”²⁷³ The structure of the eye alone, said Paley, was evidence of an intelligent, designing God, and to examine it “was a cure for atheism.”²⁷⁴ Darwin “would have no part of this cure.”²⁷⁵ Having discovered the law of natural selection, Darwin believed

267. *Id.* at 327.

268. *Id.* at 327-28.

269. *The Wedge Strategy*, CTR. FOR THE RENEWAL OF SCI. AND CULTURE, <http://www.antievolution.org/features/wedge.html> (last visited Jan. 28, 2016). *See also* *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 737 n.14 (M.D. Pa. 2005) (describing Wedge Strategy).

270. *The Wedge Strategy*, *supra* note 269.

271. *Id.* (“If we view the predominant materialistic science as a giant tree, our strategy is intended to function as a ‘wedge’ that, while relatively small, can split the trunk when applied at its weakest points.”).

272. *Id.*

273. GRUBER & BARRETT, *supra* note 7, at 52.

274. *Id.* (quoting ALEXANDER CHALMERS, *THE WORKS OF WILLIAM PALEY, D.D. WITH A LIFE* 26 (1819)).

275. GRUBER & BARRETT, *supra* note 7, at 235.

that we “can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man.”²⁷⁶ If nature were clockwork and species were watches, ID might have a point. But “[e]very species is imperfect in many ways. Kiwis have useless wings, whales have a vestigial pelvis, and our appendix is a nefarious organ,” says biologist Jerry Coyne.²⁷⁷ “*Imperfect* design is the mark of evolution; in fact, it’s precisely what we *expect* from evolution.”²⁷⁸

In 2005, a group of parents with children enrolled in the Dover, Pennsylvania schools put Intelligent Design on trial.²⁷⁹ Billed as “a modern day replay”²⁸⁰ of *Scopes*, the case similarly involved a duel between science and fundamentalism. But in its conduct and content, the *Kitzmiller* trial was everything that *Scopes* was not.

VII. KITZMILLER V. DOVER

The hijinks in Dover began with the disappearance of a mural.²⁸¹ Painted by a former Dover High School senior, the mural measured sixteen feet by four and depicted the progression from early hominids crouching in the savannah to modern upright *Homo sapiens*. For several years the painting had occupied a space adjoining teacher Bertha Spahr’s science classroom. When she noticed it missing in August 2002, she learned that the building supervisor had removed it in an effort to shield his ninth-grade granddaughter from its gross animality, its lies, and its graphic offense to his religion. Present at the mural’s subsequent destruction was school board member Bill Buckingham, who “gleefully watched it burn.”²⁸²

Serving on the board alongside Buckingham was like-minded Alan Bonsell, a staunch supporter of creationism and prayer in the schools. Anyone opposing the duo’s anti-evolution agenda was branded un-American and the wrong kind of Christian.²⁸³ At a June 2004 meeting concerned parents demanded to know when the board would vote on purchasing new biology textbooks. The book then in use, *Biology: A Living Science* by Kenneth R. Miller and Joseph S. Levine, was considered the “gold standard for basic high school biology texts.”²⁸⁴ But it was available in short supply and

276. *Id.* at 75 (quoting THE AUTOBIOGRAPHY OF CHARLES DARWIN 1809-1882, at 87 (1958; orig. published 1887)).

277. COYNE, *supra* note 14, at 81.

278. *Id.* (emphasis in original).

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

280. Stephen A. Newman, *Evolution and the Holy Ghost of Scopes: Can Science Lose the Next Round?*, 8 RUTGERS J. L. & RELIGION 11, Spring 2007, at 4.

281. See generally MATTHEW CHAPMAN, 40 DAYS AND 40 NIGHTS (2007).

282. *Id.* at 62.

283. *Id.* at 69, 74.

284. GORDY SLACK, THE BATTLE OVER THE MEANING OF EVERYTHING 9 (2007).

only in an earlier edition. Buckingham, appointed chair of the curriculum committee by board president Bonsell, derided the text as “laced with Darwinism.”²⁸⁵ Without a means to balance the teaching of evolution with creationism, Buckingham refused to consent to the book’s acquisition. As he told reporters after the meeting, “This country wasn’t founded on Muslim beliefs or evolution, this country was founded on Christianity, and our students should be taught as such.”²⁸⁶

Bonsell and Buckingham apparently read the Constitution as literally as they read their Bible. They flatly rejected the notion of separation of church and state as a myth conceived by atheists.²⁸⁷ A phone call to the Harrisburg ACLU by a *York Dispatch* reporter yielded confirmation that the board would face a federal lawsuit if it continued to pursue a creationist curriculum. Undeterred, Buckingham railed against black-robed liberals infringing on the rights of Christians. At a later board meeting, attended by a record number of Dover residents, reporters quoted Buckingham as saying, “Two thousand years ago, someone died on a cross. Can’t someone take a stand for him?”²⁸⁸

Buckingham consulted with Richard Thompson, Chief Counsel and co-founder of the Thomas More Law Center, an organization billing itself as “the sword and shield for people of faith.”²⁸⁹ Thereafter, Buckingham began promoting intelligent design instead of creationism. Meanwhile, the Seattle-based Discovery Institute, “the preeminent ID-promoting think tank,”²⁹⁰ had advised the Dover school board to adopt a “teach the controversy” approach to evolution in order to avoid a constitutional quagmire. This strategy dated back to the post-*Edwards v. Aguillard* 1990s, when intelligent design theorists were urging biology instructors to “teach the controversy they were trying their best to create.”²⁹¹ To that end, Thompson recommended an ID-approved text, *Of Pandas and People*.²⁹² Buckingham, delighted with it, pressed it upon fellow board members as an “adjunct alternative”²⁹³ to the standard biology textbook.

By August 2004 the board’s majority had grown increasingly evangelical. Members resigning in protest at Bonsell and Buckingham’s agenda were replaced by those who agreed with it. The board approved the pur-

285. *Id.* at 10.

286. CHAPMAN, *supra* note 281, at 72.

287. *Id.*

288. Margaret Talbot, *Darwin in the Dock*, NEW YORKER, Dec. 5, 2005, at 70.

289. *About the Thomas More Law Center*, T. MORE L. CTR., <http://www.thomasmore.org/about-the-thomas-more-law-center> (last visited Jan. 28, 2016).

290. SLACK, *supra* note 284, at 13.

291. NUMBERS, *supra* note 196, at 386 (emphasis in original).

292. PERCIVAL DAVIS & DEAN H. KENYON, *OF PANDAS AND PEOPLE: THE CENTRAL QUESTION OF BIOLOGICAL ORIGINS* (2d ed., 1993).

293. CHAPMAN, *supra* note 281, at 96.

chase of a new edition of *Biology: A Living Science* only after one member, formerly opposed to it, switched her vote. The acquisition of *Pandas*, a supplemental text, required a two-thirds vote. After heated discussion, a 4-4 tie, and a second vote, the motion to insert *Pandas* into the curriculum was defeated. But in the fall, sixty copies of the book magically appeared at Dover High School. Bonsell and Buckingham claimed they were the gift of an anonymous donor. Investigation by the plaintiff's attorneys in *Kitzmiller* would show that Buckingham had raised the funds for the book at his church. He wrote a check to Bonsell who passed it along to his father who then purchased the books. With *Pandas* securely in hand, the board was now ready to make it the centerpiece of a new academic policy.

In October 2004, the Dover school board voted to require ninth-grade biology teachers to read their students a statement. It began by acknowledging that Pennsylvania standards mandated the teaching of evolution. It continued:

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 origins 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.²⁹⁴

The statement concluded by advising students to "keep an open mind" and by stating that the school leaves the "discussion of the Origins of Life to individual students and their families."²⁹⁵ The implication that these scientific complexities "might be settled by schoolchildren and their parents around the kitchen table"²⁹⁶ was especially Bryanesque.

When the teachers rebelled, the task of reciting the statement fell to school administrators. Tammy Kitzmiller, with a daughter in the ninth grade, was one of eleven parents who believed the school had betrayed its educational mission. Further, the board's actions intruded upon the right of parents to instruct their children in religion as they saw fit. Kitzmiller's neighbor, Cynthia Sneath, had a young son with a lively interest in astron-

294. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d, 707, 708-09 (M.D. Pa. 2005) (quoting the school board's press release).

295. *Id.* at 709.

296. Haack, *supra* note 216, at 1327.

omy. She depended on the schools “to provide the fundamentals,” and considered “evolution to be a fundamental of science.”²⁹⁷ Plaintiff Fred Callahan bristled at being labeled “intolerant of other views. Well, what am I supposed to tolerate?” he demanded. “A small encroachment on my First Amendment rights? Well, I’m not going to. I think this is clear what these people have done. And it outrages me.”²⁹⁸

In December 2004, plaintiffs filed a federal lawsuit challenging the constitutional validity of the school board’s “Intelligent Design” policy.²⁹⁹ Witold J. Walczak, legal director of the ACLU’s Pennsylvania office, realized he needed help with his case against the Dover school district. The National Center for Science Education (NCSE), in addition to offering technical and science expertise, recruited two pro bono attorneys, Stephen G. Harvey and Eric J. Rothschild, from the high-profile corporate firm of Pepper Hamilton. The plaintiff’s legal team also included Richard B. Katskee of Americans United for Separation of Church and State. Representing the defendants was the Thomas More Law Center, “the Christian response to the ACLU,”³⁰⁰ and the organization that was so instrumental in kindling Buckingham’s ardor for intelligent design. The presiding judge, John Edward Jones III, was a life-long Republican appointed to the bench by George W. Bush. *Kitzmiller*, unlike *Scopes*, was not a criminal proceeding. Because the plaintiffs sought declaratory and injunctive relief, the case was tried to the court without a jury.

The scene at the U.S. District Courthouse in Harrisburg lacked the carnival atmosphere of Dayton. But the jury box was stuffed with reporters from local, national and international newspapers, as well as popular magazines like *Rolling Stone*, *The New Yorker*, and *People*. Among the many freelance writers, researchers and filmmakers present was Matthew Chapman, a great-great grandson of Charles Darwin. Judge Jones denied Court TV’s motion to televise the proceedings, a decision he “later publicly regretted.”³⁰¹ Plaintiffs’ expert witnesses included Brown University biology professor Kenneth R. Miller, paleontologist Kevin Padian of UC Berkeley, theologian John F. Haught of Georgetown University, and philosopher of science Robert T. Pennock of Michigan State University. For the next six weeks, the judge and spectators would be treated to “a case for evolution

297. Talbot, *supra* note 288, at 74 (quoting Cynthia Sneath).

298. CHAPMAN, *supra* note 281, at 163 (quoting Fred Callahan).

299. *Kitzmiller*, 400 F. Supp. 2d at 709.

300. See generally *About the Thomas More Law Center*, *supra* note 289.

301. Stephen G. Harvey & Eric Rothschild, *Defending Darwin*, 37 LITIG., Fall 2010, at 8-9.

that was thrilling in its breadth.”³⁰² It was, said *The New Yorker’s* Margaret Talbot, “the biology class you wish you could have taken.”³⁰³

Biology professor Miller provided an in-depth explanation of evolution—that life forms change over time, that they are descended from one or more common ancestors, and that natural selection acts to preserve traits beneficial to survival and reproduction. Both Miller and paleontologist Padian described how “[o]nly the fittest of scientific ideas survive over time,” through “the testing of hypotheses, the publication of research in peer-reviewed journals, and the evaluation of scientific claims by experts in the field.”³⁰⁴ Philosopher of science Robert Pennock explained that science cannot accommodate the presence or effect of divine or supernatural forces, “neither to rule them out nor rule them in.”³⁰⁵ Finally, theologian John Haught discussed how intelligent design acts to diminish God’s creativity in that “a God who is able to make a universe that can somehow make itself is much more impressive religiously than a God who has to keep tinkering with the creation.”³⁰⁶

Judge Jones not only allowed these witnesses to testify at length, he seemed keenly interested in what they had to say. Unlike Judge Raulston in *Scopes*, Jones appeared entirely focused on the issues at hand and undistracted by peripheral concerns. Wrote one pro-ID blogger: “Unless Judge Jones wants to cut his career off at the knees he isn’t going to rule against the wishes of his political allies.”³⁰⁷ But despite his “conservative pedigree,”³⁰⁸ throughout the trial Judge Jones maintained impartiality and appeared unaffected by partisan influences. Edward Larson had earlier written that Judge Raulston “clearly wanted to hear the experts but felt pressure from state leaders who, fearing that such testimony would heap further ridicule on Tennessee and its law, pointedly had declared that the trial should be brief.”³⁰⁹ By contrast, even during seemingly abstruse, interminable or repetitious testimony Judge Jones remained attentive and courteous.

Intelligent Design’s mascot is the bacterial flagellum, an outboard motor-like appendage that propels the organism by rotating at extraordinary speed. In his book, *Darwin’s Black Box: The Biochemical Challenge to Evolution*, biochemistry professor and Discovery Institute fellow Michael J.

302. Talbot, *supra* note 288, at 66.

303. *Id.*

304. Harvey & Rothschild, *supra* note 301, at 12.

305. *Id.*

306. CHAPMAN, *supra* note 281, at 107 (quoting John Haught).

307. LAURI LEBO, *THE DEVIL IN DOVER* 111 (2008) (quoting “DaveScot” in *Uncommon Descent*).

308. *Id.* at 110.

309. LARSON, *SUMMER FOR THE GODS*, *supra* note 21, at 180.

Behe termed the bacterial flagellum “irreducibly complex.”³¹⁰ It is so perfectly designed, argued Behe, so machine-like in its structure that it depends on all its component proteins to exist and operate. Remove even one, and the flagellum would cease to function. Therefore, Behe contended, it could not possibly have been the product of natural selection. In their testimony, Miller and Padian determined that the flagellum likely arose by “exaptation,” a process by which a component part begins by serving one function and evolves by taking on a different purpose. Examples include the mammalian inner ear, developed from reptilian jawbones, and bird feathers, originally adapted for insulation and later used as tools for flight. Behe’s other assertions, that the blood clotting mechanism and immune system were also “irreducibly complex,” failed to survive close questioning.³¹¹

Behe had no background in paleontology or evolutionary biology. He confirmed that no major scientific organization had ratified the science or teaching of intelligent design.³¹² Further, Behe’s colleagues at Lehigh University had issued a written statement affirming their unequivocal support of Darwinian theory and disassociating themselves from Behe’s views on ID.³¹³ As to the identity of ID’s prime mover, Behe admitted that he found it implausible that the designer was a natural entity. Most likely, he conceded, the designer was God.³¹⁴ Defense witness Scott Minnich, an academic microbiologist from the University of Idaho, seconded this view although, as a scientist, he qualified it as a personal rather than a professional opinion.³¹⁵

For the plaintiffs, Barbara Forrest testified about the provenance of ID’s beloved textbook, *Of Pandas and People*. As a philosopher and historian of the creationist and ID movements, she knew the book intimately. It originated, Forrest said, as a creationist text dating back to 1983. In 1987, when a new edition of the book was in process, the U.S. Supreme Court decided *Edwards v. Aguillard*³¹⁶ and barred the teaching of creation science in public classrooms. Upon reviewing multiple editions of *Pandas*, Forrest discovered that the newer editions had simply excised the term “creationism” and replaced it with “intelligent design.” At times, the overhaul was so inartfully done that the two terms appeared in composite form.³¹⁷ Intelligent design was nothing more than creationism repackaged.

310. MICHAEL J. BEHE, *DARWIN’S BLACK BOX: THE BIOCHEMICAL CHALLENGE TO EVOLUTION* (1996).

311. CHAPMAN, *supra* note 281, at 190-93.

312. SLACK, *supra* note 284, at 136.

313. *Id.*

314. CHAPMAN, *supra* note 281, at 184.

315. SLACK, *supra* note 284, at 173.

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

317. SLACK, *supra* note 284, at 107-08.

Evidence given by two school board members, Heather Geesey and Jane Cleaver, hinted at the level of discourse that must have prevailed at their meetings. Geesey admitted she had endorsed *Of Pandas and People* without ever reading it. She could not specify the “gaps” and problems purportedly afflicting evolution, nor could she summon up any curiosity about the subject. Asked whether curriculum committee chairman Bill Buckingham had a science background, Geesey answered, “He’s in law enforcement so I would assume he had to take something along the way.”³¹⁸ Cleaver referred repeatedly to intelligent design as “intelligence” design.³¹⁹ But it was Bonsell and Buckingham who succeeded in rousing the ire of the normally even-tempered judge. At their pre-trial depositions, both had suffered strategic memory lapses as to the funding source for the “donated” *Pandas* texts. As their money-laundering and religiously-motivated subterfuge was unveiled on cross-examination, the phrase “That’s not what you said in your deposition” became a persistent refrain.³²⁰ Judge Jones angrily continued cross-examining Bonsell for an additional ten minutes. When Bonsell and Buckingham blatantly denied that they had advocated the teaching of creationism, a “parade of witnesses” present at the public meetings proved otherwise.³²¹ Judge Jones later referred the matter of Bonsell and Buckingham’s false testimony to the U.S. Attorney’s Office for a perjury investigation.³²²

At the close of trial, Judge Jones told the parties and spectators that they had seen “some of the best presentations, some of the finest lawyering that you will ever have the privilege to see.”³²³ Mild-mannered Patrick Gillen, counsel for the Thomas More Law Center, rose to make a final inquiry: “Your Honor, I have one question, and that’s this: by my reckoning, this is the fortieth day since the trial began and tonight will be the fortieth night, and I would like to know if you did that on purpose.”³²⁴ Judge Jones responded, “Mr. Gillen, that is an interesting coincidence, but it was not by design.”³²⁵

In his exhaustive 139-page opinion, Judge Jones characterized intelligent design as “nothing less than the progeny of creationism”³²⁶ and “creationism re-labeled.”³²⁷ As such, ID was clearly subject to *Edwards v.*

318. CHAPMAN, *supra* note 281, at 236 (quoting Heather Geesey).

319. *Id.* at 238.

320. Talbot, *supra* note 288, at 72.

321. Harvey & Rothschild, *supra* note 301, at 13.

322. *Id.*

323. SLACK, *supra* note 284, at 180 (quoting Judge Jones).

324. *Id.* at 181 (quoting Patrick Gillen).

325. *Id.* (quoting Judge Jones).

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

327. *Id.* at 722.

Aguillard's proscription against teaching it in the public schools.³²⁸ As to the disclaimer fashioned by the school board, Judge Jones employed the endorsement test to conclude that a reasonable objective student would regard it as “a strong official endorsement of religion or a religious viewpoint” in violation of the Establishment Clause.³²⁹ Moreover, ID was not science in that its theory lacked acceptance by the scientific community, was unsupported by research or testing, and had not appeared in peer-reviewed journals.³³⁰ And, since ID was not science, under the *Lemon* test it lacked a secular purpose and its only real effect was to advance religion.³³¹ For the board to assert otherwise was “ludicrous” and a “sham.”³³²

Citing the school board’s “breathtaking inanity”³³³ in choosing to adopt an unwise and ultimately unconstitutional course of action, Judge Jones added, “It is ironic that several of these individuals, who so staunchly and proudly touted their religious convictions in public, would time and again lie to cover their tracks and disguise the real purpose behind the ID policy.”³³⁴ He continued, “The students, parents, and teachers of the Dover Area School District deserved better than to be dragged into this legal maelstrom, with its resulting utter waste of monetary and personal resources.”³³⁵ Judge Jones awarded \$2 million in legal fees to plaintiffs’ attorneys, later reduced to \$1 million, to be paid out of the school district’s general fund.

In 2006 *Time Magazine* named Judge John Jones III as one of the 100 World’s Most Influential People.³³⁶ Phyllis Schlafly contemptuously accused him of having “stuck the knife in the backs of those who brought him to the dance.”³³⁷ Dover’s citizens, “irritated at becoming the Dayton of the North, flocked to the polls and voted out of office all the pro-ID members of its school board.”³³⁸ The newly reconstituted board declined to appeal

328. *Id.* at 718.

329. *Id.* at 729.

330. *Id.* at 745.

331. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 763-64 (M.D. Pa. 2005).

332. *Id.* at 762.

333. *Id.* at 765.

334. *Id.*

335. *Id.*

336. Matt Ridley, *The 2006 TIME 100: John Jones*, *TIME* (May 8, 2006), http://content.time.com/time/specials/packages/article/0,28804,1975813_1975844_1976448,00.html.

337. Phyllis Schlafly, *False Judge Makes Mockery of Case for ‘Intelligent Design,’* TOWNHALL.COM (Jan. 2, 2006), http://townhall.com/columnists/phyllisschlafly/2006/01/02/false_judge_makes_mockery_of_case_for_intelligent_design/page/full. Judge Jones continued his backstabbing ways by overturning Pennsylvania’s same-sex marriage ban in 2014. See *Whitewood v. Wolf*, 922 F. Supp. 2d 410 (M.D. Pa. 2014).

338. NUMBERS, *supra* note 196, at 393.

Judge Jones's ruling.³³⁹ In the wake of his decision, Judge Jones received "death threats . . . in a torrent of hateful emails, letters, and faxes."³⁴⁰ Five years after the trial, Tammy Kitzmiller, who had hoped in vain to remain anonymous as a 'Jane Doe' plaintiff, was still receiving hate mail.³⁴¹

VIII. CONCLUSION: WHEN THE HORSE WON'T DRINK

In Hugoton, Kansas, public high school students attend mandatory assemblies conducted by the Creation Trust Foundation. There they learn that dinosaurs—"God's Gospel Lizards"—"were created to serve Adam and Eve," lived among man, and may still inhabit the earth.³⁴² A textbook published by Bob Jones University and "used by many voucher-eligible schools,"³⁴³ contains similar material about man's coexistence with dinosaurs. In Louisiana's Sabine Parish school district, a teacher tells her class, "If evolution was real, it would still be happening. Apes would be turning into humans today."³⁴⁴ In 2014, Dayton, Tennessee's Bryan College amended its statement of belief to declare that Adam and Eve "are historical persons created by God in a special formative act, and not from previously existing life-forms."³⁴⁵ This is what passes for science education in parts of today's America.

An unfortunate legacy of *Scopes* is that it "undermined the emerging accommodation between religion and science," cementing fundamentalist conviction that embracing evolution would erode their faith.³⁴⁶ To ward off assaults on their beliefs, fundamentalists devised a "parallel culture"³⁴⁷ hosting its own educational system of home-schooling as well as colleges and universities, its own publishers and its own media for "filtering information from the world outside."³⁴⁸ After *Scopes*, fundamentalists construct-

339. Michael Powell, *Judge Rules Against 'Intelligent Design,'* WASH. POST, Dec. 21, 2005.

340. Mark Joseph Stern, "There Have Been No Direct Threats, I'm Delighted to Say," SLATE.COM (May 30, 2014), http://www.slate.com/articles/news_and_politics/jurisprudence/2014/05/meet_judge_john_jones_who_brought_marriage_equality_to_pennsylvania.html.

341. Andrew Shaw, *After 5 Years, Dover Intelligent Design Ruling's Impact Still Felt*, YORK DISPATCH, (Dec. 17, 2010).

342. *When Teachers Preach*, 1 STAND MAGAZINE, Summer 2014, at 18, 23.

343. *Id.*

344. *Id.* at 20.

345. Alan Blinder, *Bryan College is Torn: Can Darwin and Eden Coexist?*, N.Y. TIMES (May 20, 2014), http://www.nytimes.com/2014/05/21/education/christian-college-faces-uproar-after-bolstering-its-view-on-evolution.html?_r=0.

346. Susan Jacoby, *Caught Between Church and State*, N.Y. TIMES (Jan. 19, 2005), http://www.nytimes.com/2005/01/19/opinion/caught-between-church-and-state.html?_r=0.

347. CAUDILL, *supra* note 230, at 165.

348. *Id.*

ed a narrative in which they cast themselves as “righteous rebels”³⁴⁹ valiantly fighting for free expression and individual liberty. In the spirit of Bryan, they “redefined science . . . to make it a political, rather than intellectual endeavor.”³⁵⁰ The “politicization of science in the name of religion”³⁵¹ has made it nearly impossible to isolate science from overt political partisanship. Even in the face of overwhelming scientific evidence, adherence to political and religious identity “often trumps the facts.”³⁵²

On his lapel, Bill Buckingham wore a Christian cross wrapped in an American flag. Hofstadter observed that, for the far right, the fundamentalism of the cross united with the fundamentalism of the flag to keep alive “the folkish anti-intellectualism of the evolution controversy.”³⁵³ By the 1970s, fundamentalism had become ensconced in mainstream politics.³⁵⁴ To gain electoral advantage, office-seekers eagerly enlist in the “modern day religious culture wars,” exploiting anti-Darwinism to garner popular support and influence.³⁵⁵ Evolution, manifestly safe from scientific controversy, now finds its most formidable opponent in partisan politics.³⁵⁶ Anti-evolutionism has become America’s gift to the world, a global phenomenon that transcends geographical and theological boundaries,³⁵⁷ as “readily exportable as hip-hop and blue jeans.”³⁵⁸

Coupled with its fundamentalist imprint is America’s regard for education as a source of economic payoff rather than a forum for the love of learning. De-emphasizing intellect promotes “a democratization of the educational system,”³⁵⁹ where scientific fact is vetted by popular acceptance. High school students, urged to think critically about evolution, are poorly equipped to do so.³⁶⁰ When asked about the conflict between evolution and intelligent design, President George W. Bush averred that “[b]oth sides ought to be properly taught . . . so people can understand what the debate is about.”³⁶¹ But the American affinity for consensus is misplaced in these

349. *Id.* at 167.

350. *Id.* at 165.

351. Jon D. Miller et al, *Public Acceptance of Evolution*, 313 *SCIENCE* 765-66 (2006).

352. Brendan Nyhan, *When Beliefs and Facts Collide*, N.Y. TIMES (July 5, 2014), <http://www.nytimes.com/2014/07/06/upshot/when-beliefs-and-facts-collide.html>.

353. HOFSTADTER, *supra* note 28, at 132.

354. MARSDEN, *supra* note 54, at 232.

355. Newman, *supra* note 280, at 20.

356. *Id.* at 51.

357. NUMBERS, *supra* note 196, at 431.

358. *Id.* at 399.

359. Jeffrey M. Cohen, *The Right to Learn: Intellectual Honesty and the First Amendment*, 39 *HASTINGS CONST. L.Q.* 659, 667 (2012).

360. *Id.* at 663.

361. LEBO, *supra* note 307, at 94 (quoting George W. Bush).

types of issues. Fairness and balance “can lead to distortion,” creating the erroneous impression that “the scientific debate is equally split.”³⁶² The conflict rages on, perpetuating what Ian Barbour called “the false dilemma of having to choose between science and religion.”³⁶³

Science is not infallible but it is not, and never has been, intended as grist for the opinion polls. Philosopher of science Lee McIntyre warned that self-righteousness about one’s own beliefs can invidiously obscure good scientific practice.³⁶⁴ Distinguishing between skepticism and denial, McIntyre explained, “When we withhold belief because the evidence does not meet the standards of science, we are skeptical. When we refuse to believe something, even in the face of what most others would take to be compelling evidence, we are engaging in denial.”³⁶⁵ Confronted with overwhelming evidence to the contrary, deniers of evolution “have stumbled past skepticism and landed in the realm of willful ignorance.”³⁶⁶

The current Next Generation Science Standards for grades K through twelve include material on evolution and global warming. Wyoming was among the first states to reject the new guidelines.³⁶⁷ In Kansas, which has adopted the standards, a group calling itself Citizens for Objective Public Education (COPE) filed suit in 2013 to block their implementation.³⁶⁸ The lawsuit charged that the guidelines violated First Amendment religious freedoms by indoctrinating impressionable students with a “non-theistic religious worldview.”³⁶⁹ The group further objected to the curriculum’s reliance on “materialistic” or “atheistic” scientific explanations on questions concerning life’s origins.³⁷⁰ Citing lack of subject matter jurisdiction,

362. *Id.* at 96 (citing BILL KOVACH & TOM ROSENSTIEL, *THE ELEMENTS OF JOURNALISM* (2001)).

363. BARBOUR, *supra* note 16, at 10.

364. Lee McIntyre, *The Price of Denialism*, N.Y. TIMES (Nov. 7, 2015, 2:30 PM), <http://opinionator.blogs.nytimes.com/2015/11/07/the-rules-of-denialism/>.

365. *Id.*

366. *Id.*

367. Allie Bidwell, *Climate Change Debate: Coming Soon to a School Near You*, U.S. NEWS (June 20, 2014, 12:01 AM), <http://www.usnews.com/news/articles/2014/06/20/how-the-climate-change-debate-is-influencing-whats-taught-in-schools>.

368. COPE v. Kansas St. Bd. of Educ., 71 F. Supp. 3d 1233 (D. Kan. 2014).

369. John Hanna, *Lawsuit Filed in Kansas to Block Science Standard*, KAN. CITY STAR (Sept. 26, 2013, 5:39 PM), <http://www.kansascity.com/news/local/article328315/Lawsuit-filed-in-Kansas-to-block-science-standard.html> (noting that Kansas “has had six different sets of science standards in the past 15 years, as conservative Republicans skeptical of evolution gained and lost board majorities.”).

370. *Id.*

the U.S. District Court for the District of Kansas dismissed the case on December 2, 2014.³⁷¹

Fundamentalists equate a secular state with a godless one. They assert a constitutional right to believe and a right to inject their beliefs into the workings of public institutions. Many religions, including Christianity, can accommodate the teaching of evolution without risk of harm to their convictions. Fundamentalist insistence on imposing its sectarian view, driven by a very particular strain of Christian biblical literalism, is the very essence of establishment. It promotes one belief over all others, including non-belief, as well as over faiths that have chosen to endorse evolution and human agency in climate change.

Creationists, said Stephen Jay Gould, “are troubled for the right reason, but venting their anger at the wrong target.”³⁷² For those who suffer moral or spiritual unease about the human condition, the culprit is not evolution, “or any other fact of the natural world.”³⁷³ The task of reconciling one’s religion with worldly realities is a deeply personal one. Public education has no role in the endeavor, except to present some of those worldly realities proficiently. America’s public schools can accommodate diverse religions, races, cultures and ethnicities, all in one classroom. They accomplish this by following unified standards favoring none of those groups. Local and regional wars on evolution continue because, in certain communities, religious partisanship is more tangible, valued, and more defensible than abstract notions of knowledge or progress. But though we may not have the Sputnik-era Soviets to goad us into modernity and national solidarity, we do have to compete in an increasingly demanding global marketplace.

Judge Jones purposely wrote a comprehensive opinion in *Kitzmiller* “in the hope that it may prevent the obvious waste of judicial and other resources” occasioned by subsequent trials on the same issue.³⁷⁴ Even as the case was unfolding, however, creationist textbook editors were substituting “sudden emergence theory” for intelligent design.³⁷⁵ Like its forebear, sud-

371. *COPE*, 71 F. Supp. 3d at 1256. Plaintiffs filed an appeal to the U.S. Court of Appeals for the Tenth Circuit on December 30, 2014. See *Critics of Kansas Science Standards Appeal Ruling*, EMPORIA GAZETTE (Dec. 31, 2014), http://www.emporiamagazine.com/news/state/article_eb7fc1e6-45fe-519c-8ed4-546855fe3866.html.

372. Gould, *supra* note 66, at 261.

373. *Id.*

374. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735 (M.D. Pa. 2005).

375. Laurie Goodstein, *Evolution Trial in Hands of Willing Judge*, N.Y. TIMES (Dec. 18, 2005), <http://www.nytimes.com/2005/12/18/us/evolution-trial-in-hands-of-willing-judge.html> (describing a lawyer cross-examining an intelligent design proponent on why a textbook the witness helped to write substituted “intelligent design” for “creationism” in a later edition and then “sudden emergence theory” in a draft of a future edition. “We won’t be

den emergence “serves as an example of what an innately religious concept looks like when all explicit religious references have been systematically erased.”³⁷⁶ Anti-evolutionists will continue to adjust their tactics to attenuate the link between religiously inspired policies and Establishment Clause limitations. Still, courts remain adept at “sniffing out religion masquerading as science.”³⁷⁷ It might even be argued that alternative theories to evolution that are not scientifically tested, peer reviewed, or published in scientific journals are presumed to be without secular purpose. But for their biblical rationale, such theories have no reason to exist.

The Discovery Institute’s directive to “teach the controversy” appears to project “a healthy aversion to orthodoxy.”³⁷⁸ In the absence of a valid scientific conflict, however, this approach “makes people stupid. It pretends there is confusion where there is not and it wastes children’s time.”³⁷⁹ Jeffrey Cohen posits that the First Amendment’s Free Speech clause guarantees a right of intellectually honest teaching to students in compulsory education. The state, he argues, “cannot compel attendance at school and then deliberately misinform a student of the true scientific fact for some improper purpose, whether religiously motivated or not.”³⁸⁰ But the extent to which teachers are bullied into avoiding evolution by fundamentalist parents and school boards cannot be underestimated. Perhaps the most “insidious effect” of the anti-evolution campaign has been to “render evolution controversial enough to silence many teachers who know better.”³⁸¹ Bowing to the “controversy,” Miller and Levine’s 2004 edition of *Biology: A Living Science* contained a statement as to evolutionary theory’s strengths and weaknesses. If the publishers wished to sell books in Texas, the second most populous state in the union, the authors had to conform to the state’s curriculum requirements.³⁸²

A thin ray of hope has recently appeared in the nation’s Christian colleges and universities. The BioLogos Foundation, created by Francis Collins, leader of the Human Genome Project and Director of the National Institutes of Health, “invites the church and the world to see the harmony

back in a couple of years for the sudden emergence trial, will we?,” the lawyer asked. “Not on my docket,” quipped Judge Jones.).

376. Eric Shih, *Teaching Against the Controversy: Intelligent Design, Evolution, and the Public School Solution to the Origins Debate*, 2007 MICH. ST. L. REV. 533, 553; see Liza Gross, *Scientific Illiteracy and the Partisan Takeover of Biology*, 4 PLOS BIOLOGY, e167 (Apr. 18, 2006), <http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.0040167>.

377. Cohen, *supra* note 359, at 685.

378. Talbot, *supra* note 288, at 77.

379. *Id.* (quoting paleontologist Kevin Padian).

380. Cohen, *supra* note 359, at 684.

381. Jacoby, *supra* note 346.

382. CHAPMAN, *supra* note 281, at 95.

between science and biblical faith.”³⁸³ Although it rejects materialism in favor of divine creation, BioLogos believes that “evolution is not in opposition to God, but a means by which God providentially achieves his purposes.”³⁸⁴ In two major initiatives, the foundation has organized faculty workshops at Christian colleges and written several books advising Christian academic institutions on the teaching of evolution.³⁸⁵ Many of these colleges are constrained by statements of faith endorsing the literal truth of the Bible. As a result, science educators who dare teach evolution at these schools must do so “quietly” or be fired.³⁸⁶ Biology professor Richard Colling, roundly criticized by his church and university for promoting the idea of a random universe designed by God, explained, “If the colleges don’t change, no one will take us seriously. If we require students to check their intellect at the door of our churches and colleges, they will not come in.”³⁸⁷

In Orange Park, Florida, a suburb of Jacksonville, high school biology teacher David Campbell prepares to introduce his class to the rudiments of evolution. In 2008, Florida’s Department of Education revised its standards to require the teaching of evolution, calling it “the organizing principle of life science.”³⁸⁸ Many of Campbell’s students have been raised to believe the biblical creation story as fact. He proceeds carefully yet resolutely. Beginning with a slide show of Mickey Mouse, Campbell invites his class to observe how Mickey’s form and features have altered since 1940, how he has “evolved.” Faced with “a mandate to teach evolution but little guidance as to how, science teachers are contriving their own ways to turn a culture war into a lesson plan.”³⁸⁹ Campbell patiently explains the scientific method. He shows his class the fossil jaw of an ancient ancestor of the modern horse, describing how the species has changed over millions of years. Anticipating animosity from his most resistant students, Campbell ventures warily into human origins. To his amazement, the discussion unleashes a

383. *About BioLogis*, BIOLOGOS.ORG, <http://biologos.org/about>, (last visited Jan. 28, 2016).

384. *Id.*

385. See Scott Jaschik, *Believing in God and Evolution*, INSIDE HIGHER ED (Oct. 14, 2009), <https://www.insidehighered.com/news/2009/10/14/evolution> (“Some professors, with support from prominent scientists, are trying to defend the teaching of evolution and to make it safe for those who teach biology and the Bible to talk about ways in which belief in evolution need not represent an abandonment of faith.”).

386. *Id.*

387. *Id.* (quoting Richard Colling); see RICHARD COLLING, *RANDOM DESIGNER: CREATED FROM CHAOS TO CONNECT WITH CREATOR* (2004) (exploring a simultaneous commitment to God and evolution).

388. Amy Harmon, *A Teacher on the Front Line as Faith and Science Clash*, N.Y. TIMES (Aug. 24, 2008), http://www.nytimes.com/2008/08/24/education/24evolution.html?_r=0.

389. *Id.*

storm of questions—about the earliest primates and mammals, about why humans evolved and chimps stayed the same, about whether humans will continue to evolve. Distinguishing faith from science Campbell tells his students, “I don’t expect you to ‘believe’” in evolution. “But I do . . . expect you to understand it.”³⁹⁰

Much to the pride of the fundamentalists, and the distress of most everyone else, the issues in *Scopes* remain as pertinent today as they were in 1925. William Jennings Bryan’s spirit lives on in the doubters and deniers of evolution, and in the American tendency to give undue deference to the will of the people in matters of faith versus science. But Bryan’s celebrated oratory now seems quaint next to the fiery righteous indignation of his adversaries: Clarence Darrow’s warning against “marching backward into the glorious ages of the sixteenth century,”³⁹¹ when science was heresy and heresy was fatal; Dudley Field Malone’s exhortation to confront the fear, defy it and defeat it in the cause of justice;³⁹² and Arthur Garfield Hays’s plea that “if biology is to be taught, [the State] cannot demand that it be taught falsely.”³⁹³ The law has changed since *Scopes*, even if many American minds have not, and evolution is regaining its rightful place in the classroom. Public education’s mission is to impart ideas uncompromised by religious dogma, even when it moonlights as science or politics, whether it pleases the masses or not. If the horse won’t drink, it is free to seek sustenance elsewhere. On the other side of the wall.

390. *Id.*

391. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Second Day, July 13, 1925) 87 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%202nd%20day.pdf>.

392. THE WORLD’S MOST FAMOUS COURT TRIAL: TENNESSEE EVOLUTION CASE (Fifth Day, July 16, 1925) 188 (3d ed. 1925), <http://darrow.law.umn.edu/documents/Scopes%205th%20day.pdf>.

393. HAYS, *supra* note 169, at 43.