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# Cracks in the Wall, a Bulge Under the Carpet: the Singular Story of Religion, Evolution, and the U.S. Constitution

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#### CRACKS IN THE WALL, A BULGE UNDER THE CARPET: THE SINGULAR STORY OF RELIGION, EVOLUTION, AND THE U.S. CONSTITUTION

#### SUSAN HAACK<sup>†</sup>

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From a report in the *Daily Telegraph* about an assistant in a jewelry shop, selling a cross to a customer: "Which sort did you want to look at, Sir? . . . "We've got the plain silver, the plain gold, and the patterned gold. Oh, and we've got some others with a little man on."

From an article in *Newsweek* about the failed attempt to make a course on Reason and Faith a requirement at Harvard: "[K]ids need to know the difference between a Sunni and a Shia' is something you hear a lot."<sup>2</sup>

#### I. AN EMBARRASSMENT OF RICHES

I have no pretensions to be a historian, or even a philosopher, of religion; nor am I a religious person, but a cheerful atheist. Nonetheless,

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<sup>1.</sup> Reported by MAUREEN LIPMAN, SOMETHING TO FALL BACK ON 89 (London: Bolsover Books, 1987). Ms. Lipman is a British comedienne; the Daily Telegraph is a London newspaper.

<sup>2.</sup> Lisa Miller, Harvard's Crisis of Faith: Can a Secular University Embrace Religion Without Sacrificing Its Soul?, NEWSWEEK, Feb. 22, 2010, at 42.

I find the astonishing ignorance revealed in the first of my opening quotations, and the creepy parochialism-of-the-recently-relevant-to-us revealed in the second, quite disturbing. The religious impulse is so deep and significant an element in human nature, after all, and religion has played so large and important a role in human culture, that it is hardly possible for us to understand ourselves or our society without some knowledge of religion and its history.

Is this to say, with Justice Clark in his ruling for the Supreme Court in Schempp, that "one's education is not complete without a study of comparative religion or the history of religion and its relationship to the advancement of civilization?" Not exactly: I am not entirely comfortable with Justice Clark's implicit suggestion that one's education begins and ends at school, or for that matter with the idea that one's education is ever "complete." Nor do I think that religion has always contributed to the "advancement" of civilization—far from it. Still, the history of religion surely is one important thread among the many that interweave to form the tapestry of human culture. As Justice Clark also says, "[t]he history of man is inseparable from the history of religion."

As I cast about for topics that might be appropriate for a lecture to an audience of historians of religion, I was struck by how often religion and its history have cropped up in my work. The old pragmatists from whom I have learned so much all wrote, each from a different angle, on religion; and so, I realize, albeit more obliquely, have I. In philosophy of science, for example, I have found myself writing about tensions between scientific and religious world-pictures; wondering what, if anything, the possibility of an evolutionary explanation of the religious impulse might tell us about the legitimacy or otherwise of religious belief; and asking whether there is anything in the idea that science itself calls on a kind of faith. Writing a recent paper on the concept of belief, I found myself looking up the role of snake-handling in the religious ritual

<sup>3.</sup> Sch. Dist. of Abington Twp., Pa. v. Schempp, 374 U.S. 203, 225 (1963) (ruling Pennsylvania and Maryland statutes mandating daily Bible readings unconstitutional under the Establishment Clause).

<sup>4.</sup> Id. at 212 (quoting Engel v. Vitale, 370 U.S. 421, 434 (1962)).

<sup>5.</sup> See, e.g., C.S. Peirce, A Neglected Argument for the Reality of God (1908), reprinted in Collected Papers, 6.452-493 (Charles Hartshorne, Paul Weiss & Arthur Burks eds., 1931-58); William James, The Varieties of Religious Experience (Frederick H. Burkhardt et al. eds., Harvard University Press 1985) (1902); John Dewey, A Common Faith (1934), reprinted in 9 The Later Works of John Dewey 1-58 (Jo Ann Boydston ed., 1986).

<sup>6.</sup> SUSAN HAACK, DEFENDING SCIENCE—WITHIN REASON: BETWEEN SCIENTISM AND CYNICISM ch. 10 (2003); Susan Haack, Fallibilism and Faith, Naturalism and the Supernatural, Science and Religion (2004), reprinted in Putting Philosophy to Work: Inquiry and Its Place in Culture 183-94 (2008).

of Pentecostal sects;<sup>7</sup> writing another, on the difference between appropriate respect for the achievements of the sciences and the undue deference we call "scientism," I learned about historians who used a borrowed cyclotron to date the ink in the earliest printed Bibles.<sup>8</sup> And while I was writing the present paper—but keeping up my reading on "Climategate" out of a long-standing interest in the weaknesses of an over-burdened and over-rated peer-review system<sup>9</sup>—I chanced upon an editorial likening environmentalism to a proselytizing religion, with a holy day (Earth Day), food restrictions (mandating the eating only of organic and/or locally-grown foods), holy structures (multi-colored recycling bins)—and a marked reluctance to face contrary evidence squarely.<sup>10</sup>

As I prepared to teach a class on philosophy and literature, among the "epistemological novels" I chose to illustrate how works of fiction teach us truths about real people and what makes them tick were Samuel's Butler's *The Way of All Flesh*, "I with its extraordinary depictions of ecclesiastical hypocrisy; Sinclair Lewis's *Arrowsmith*, with Max Gottlieb's remarkable description of the true scientist as "intensely religious . . . so religious that he will not accept quarter-truths, because they are an insult to his faith"; <sup>12</sup> and Alison Lurie's *Imaginary Friends*, <sup>13</sup> a marvelously zany and thought-provoking tale of the trials and tribulations of two social psychologists conducting an observer-participation study of a bizarre spiritualist sect.

Again: while writing a paper on courts' handling of expert testimony, I found myself trying to determine what role the decision of the Fourth Lateran Council to forbid priests from taking part in trials by ordeal

<sup>7.</sup> Susan Haack, Belief in Naturalism: An Epistemologist's Philosophy of Mind, 1 LOGOS & EPISTEME 67-83 (2010).

<sup>8.</sup> Susan Haack, Six Signs of Scientism, III.1 Logos & Episteme 75 (2012).

<sup>9.</sup> Susan Haack, Peer Review and Publication: Lessons for Lawyers, 36 STETSON L. REV. 789 (2007).

<sup>10.</sup> Paul M. Rubin, Environmentalism as Religion, WALL St. J., Apr. 22, 2010, at A21 (April 22 is Earth Day).

<sup>11.</sup> SAMUEL BUTLER, THE WAY OF ALL FLESH (The Modern Library 1998) (1903); see also Susan Haack, The Ideal of Intellectual Integrity, in Life and Literature (2005), reprinted in PUTTING PHILOSOPHY TO WORK, supra note 6, at 195-208.

<sup>12.</sup> SINCLAIR LEWIS, ARROWSMITH 278 (Signet Classic 1961) (1927).

<sup>13.</sup> ALISON LURIE, IMAGINARY FRIENDS (Henry Holt & Co. 1967). Lurie had evidently read a famous social-psychological study of the "Truth-Seekers." LEON FESTINGER, HENRY W. REICKEN, & STANLEY SCHACTER, WHEN PROPHECY FAILS (1956). The "Truth-Seekers," led by Mrs. Marion Keech, claimed to be receiving messages from deities in flying saucers; and Lurie has a grand time playing imaginatively with the many ways this kind of study might go wrong.

played in the evolution of the Anglo-American jury system; <sup>14</sup> and, while writing a paper developing a pragmatist legal theory, needing to understand the Islamic concepts underlying a (now-repealed) Pakistani rape law I had used as one of my examples. <sup>15</sup> And when, in the wake of a 2005 legal *cause célèbre*, the *Kitzmiller* trial, <sup>16</sup> I volunteered to teach a class on Religion and the Constitution, I found myself exploring the relation of church and state from the earliest days of Colonial America, tracing the evolution of the Establishment Clause from its ratification in 1791 to the present—and later, using "establishment of religion" to illustrate how legal concepts shift and adapt to new circumstances, and why purely logical models of legal reasoning fail. <sup>17</sup>

So, as you can imagine, my biggest problem wasn't finding a topic that would be of interest to me, but selecting one that might also be of interest to my audience. In the end, I settled on the last on my list, the evolution of the Establishment Clause, and specifically its role in cases over the teaching of evolutionary biology in public high schools: a story that will show something of how U.S. constitutional law has adapted to shifts and changes in the religious affiliations of its citizens, to changes in the educational system, and to developments in science, and (though in lesser detail) how religious thinking has adapted to scientific, educational, and legal changes.

The legal history that follows will be informed by the conjecture that over many years a relatively modest understanding of the Establishment Clause due to James Madison has been largely, though not completely, displaced by a more ambitious understanding due to Thomas Jefferson; and will be punctuated by philosophical asides about the (in)compatibility of the theory of evolution with religious beliefs, the meaning of "theory," and the demarcation of science. My narrative begins with a sketch of the origins of the Establishment Clause (section II); next turns to early efforts to outlaw the teaching of evolution, culminating in the Scopes trial (section III); then looks at how, after the Establishment Clause became applicable to the states with the Supreme

<sup>14.</sup> Susan Haack, *Irreconcilable Differences? The Troubled Marriage of Science and Law*, 72 LAW & CONTEMP. PROBS. 1 (2009).

<sup>15.</sup> Susan Haack, *The Pluralistic Universe of Law: Towards a Neo-Classical Legal Pragmatism*, 21 RATIO JURIS 453 (2008).

<sup>16.</sup> Kitzmiller v. Dover Area Sch. Dist., 400 F. Supp. 2d 707 (M.D. Penn. 2005) (ruling evolution disclaimer statement to be read before ninth-grade biology class unconstitutional).

<sup>17.</sup> Susan Haack, The Growth of Meaning and the Limits of Formalism, in Science and in Law, 29 ANÁLISIS FILOSÓFICO 5 (2009); see also Susan Haack, On Logic in the Law: "Something, but not All," 20 RATIO JURIS 1 (2007).

Court's ruling in *Everson*, <sup>18</sup> anti-evolution statutes were themselves outlawed (section IV); tracks courts' ambivalent Establishment Clause jurisprudence in the wake of *Lemon*, <sup>19</sup> and, in the same period, the rise and fall of statutes mandating "balanced treatment" of evolution and creation science (section V); and finally, explores the present situation, including the legal test of Intelligent Design Theory in *Kitzmiller*<sup>20</sup> (section VI).

#### II. IN THE BEGINNING: ORIGINS OF THE ESTABLISHMENT CLAUSE

"The history of religion and the Church in America, as these stand related to the civil government," Sanford Cobb wrote in 1902, "presents features unparalleled in the rest of Christendom, and makes a sharp contrast with the religious and ecclesiastical history of Europe." Most importantly, he continued, the now-familiar idea of the separation of church and state had its origins in America. In a way, this is right; but the story is even more complicated than Cobb acknowledges.

Many of the early colonists who came to what is now the United States from England were dissenters escaping religious persecution by an intolerant established church. Nevertheless, some of the early colonies, notably Massachusetts, took a thoroughly theocratic form: the government was an arm of the church, and dissent was not only sin but also sedition. Others, notably Virginia, had an established (Anglican) church: the church was an arm of the state, and dissent was a form of civil disorder. But in Rhode Island government was founded on principles articulated by Roger Williams—who had left Salem, Massachusetts to escape religious persecution. Whenever the "hedge or wall of Separation" protecting "the Garden of the Church" from "the Wildernesse of the world" has been breached, Williams declared, God "has made his Garden a Wildernesse." And: "[A]ll civill states . . . are .

<sup>18.</sup> Everson v. Bd. of Educ. of Ewing Twp., 330 U.S. 1, 5-18 (1947) (ruling reimbursement to parents of children's bus fares to their schools, including Catholic schools, constitutional).

<sup>19.</sup> Lemon v. Kurtzman, 403 U.S. 602 (1971) (ruling Pennsylvania and Rhode Island statutes giving financial support to Catholic schools for secular purposes unconstitutional).

<sup>20.</sup> Kitzmiller, 400 F. Supp. 2d 707.

<sup>21.</sup> SANFORD H. COBB, THE RISE OF RELIGIOUS LIBERTY IN AMERICA: A HISTORY 1 (The MacMillan Co. 1902).

<sup>22.</sup> Id. at 2.

<sup>23.</sup> Id. at 67-70.

<sup>24.</sup> Id. at 71.

<sup>25.</sup> Roger Williams, Mr. Cottons [sic] Letter Examined and Answered (1644), in 1 The Complete Writings of Roger Williams 392 (Russell & Russell, Inc. 1963). I have

.. essentially civill . . . ," for "God requireth not an uniformity of Religion to be inacted and inforced in any civill state." When Rhode Island was established by Royal Charter in 1663, King Charles II was struck, as well he might be, by the petitioners' eloquent statement that "[i]t is much in our hearts to hold forth a lively experiment, that a most flourishing civil State may stand, and best be maintained, with a full liberty of religious concernments." In line with this, the Charter provides that every person in the colony, at any time hereafter, may "freely and fully enjoy his . . . judgement and conscience in matters of religious concernment"; though we shouldn't fail to notice that the preamble affirms that this is "to preserve to them that liberty in the true Christian faith . . . which they have sought with so much travel . . . ."<sup>28</sup> In 1665 the young Rhode Island legislature reiterated its commitment to "liberty to all persons as to the worship of God."<sup>29</sup>

By the time of the American Revolution, though Rhode Island stood firm in its policy, there had been significant changes elsewhere. Massachusetts remained theocratic in form, but in practice tolerated dissent; the law in Pennsylvania restricted religious liberty even more severely than the law in Massachusetts, but in practice there was no religious persecution. In Virginia, however, where three-quarters of the population was outside the established Anglican church, there was less religious freedom than in either Massachusetts or Pennsylvania; 30 an unstable situation that came to a head in 1785, when petitioners asked for an assessment of taxes to pay for religious teachers. In his "Memorial and Remonstrance" James Madison replied that "in matters of religion, no man's right is abridged by the institution of Civil Society and . . . religion is wholly exempt from its cognizance."31 To abandon this principle, he continued, would "destroy that moderation and harmony which the forbearance of our laws to intermeddle with Religion has produced among its several sects. Torrents of blood have been shed in

followed Williams's older-English spelling, except that I have replaced his "f's" by "s's" where appropriate. John Cotton, an early leader in Massachusetts, had declared that "it was Toleration that made the world anti-Christian." COBB, *supra* note 21, at 68.

<sup>26.</sup> Roger Williams, *Bloudy Tenent, of Persecution for Cause of Conscience* (1644), in 3 THE COMPLETE WRITINGS OF ROGER WILLIAMS 1-2 (1963).

<sup>27.</sup> COBB, *supra* note 21, at 435.

<sup>28.</sup> JOSEPH STORY, 1 COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES 84-85 (Brown, Shattuck & Co. 1883). The full text of the Rhode Island Charter is available at http://avalon.law.yale.edu/17th century/ri04.asp (last visited Mar. 26, 2012).

<sup>29.</sup> STORY, supra note 28, at 437.

<sup>30.</sup> Id. at 482-83.

<sup>31.</sup> James Madison, Memorial and Remonstrance Against Religious Assessments (1785), reprinted in STEPHEN JAY GOULD ARCHIVE, available at http://www.stephenjaygould.org/ctrl/madison\_mr.html (last visited Mar. 26, 2012).

the old world, by vain attempts of the secular arm, to extinguish Religious discord, by proscribing all differences in Religious opinion. Time has at length revealed the true remedy."<sup>32</sup> And Thomas Jefferson wrote that "[i]t is error alone that needs the support of government; Truth can stand by itself."<sup>33</sup> The petitioners' bill was defeated; and the Anglican church was disestablished in Virginia that same year, under the "Declaratory Act Establishing Religious Freedom" drawn up by Jefferson and introduced by Madison.<sup>34</sup>

The federal constitution, adopted in 1787 and ratified a year later when New Hampshire signed on, included the important provision that "no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States"; but (to the disappointment of Mr. Jefferson, who had been out of the country serving as ambassador to France at the time), no specific guarantee of religious freedom. However, several states proposed amendments; and New Hampshire, New York, and Virginia specifically asked for some declaration on freedom of religion. And so the First Amendment to the Constitution, proposed by Madison and ratified in 1791, provided *inter alia* that Congress "shall make no law respecting an establishment of religion or prohibiting the free exercise thereof" (now known, respectively, as the "Establishment" and "Free Exercise" Clauses).

Madison's understanding of the provision that there should be no law respecting the establishment of religion, he said in debate, was "that Congress should not establish a religion, and enforce the legal observation of it by law, nor compel men to worship God in any manner contrary to their conscience." And this modest understanding seems to have predominated for many years: as Justice Story would write in 1833, "the . . . object of the [F]irst [A]mendment was not to countenance, much less to advance, Mahometanism, or Judaism, or infidelity, but to exclude rivalry among Christian sects, and to prevent any *national* ecclesiastical establishment which should give to an hierarchy the exclusive patronage

<sup>32.</sup> Id.

<sup>33.</sup> COBB, supra note 21, at 493.

<sup>34.</sup> Id. at 492.

<sup>35.</sup> U.S. CONST. art VI, § 3.

<sup>36.</sup> Reynolds v. United States, 98 U.S. 145, 163 (1878) (summarizing the history of the Establishment Clause).

<sup>37.</sup> Id. at 164.

<sup>38.</sup> U.S. CONST. amend. I.

<sup>39.</sup> Wallace v. Jaffree, 472 U.S. 38, 95 (1985) (Rehnquist, J., dissenting) (citing 1 Annals of Cong. 758 (1789) (Joseph Gales ed., 1834)). Since Justice Rehnquist's quotation is from the report of the debate, these may not be Madison's exact words.

of the national government."<sup>40</sup> So you shouldn't be surprised to learn that the first session of the U.S. Congress was opened with prayers by a chaplain paid out of public funds;<sup>41</sup> or even that in the late eighteenth and early nineteenth centuries some states had (weak forms of) religious establishment.<sup>42</sup>

In 1801, however, in his "Letter to the Danbury Baptists," then-President Jefferson wrote that "religion is a matter which lies solely between a Man & his God," and "the legitimate powers of government reach actions only, & not opinions." This, he continued—borrowing Williams's metaphor—is why the Religion Clauses of the First Amendment build a "Wall of Separation" between church and state." This seems to be a significantly stronger understanding than Madison's. On Madison's conception, the two religion clauses sit comfortably together; on Jefferson's, however, there is at least the potential for conflict. Madison's understanding seems adequate for a country like the young United States—a Christian nation, despite all the sectarian

<sup>40.</sup> STORY, supra note 28, vol. II at 630-32 (emphasis added).

<sup>41.</sup> Though you might be surprised to learn that both the House and the Senate still do; and that, so far as I can determine, so do most states. See MILDRED AMER, HOUSE AND SENATE CHAPLAINS, CONG. RESEARCH SERV. (2008), available at http://www.senate.gov/reference/resources/pdf/RS20427.pdf (last visited July 13, 2012); NAT'L COMM. ON STATE LEG., INSIDE THE LEGISLATIVE PROCESS, Table 99-9.16 Selection of the Chaplain, available at http://www.ncsl.org/documents/legismgt/ILP/99TAB 9Pt2.pdf (last visited July 13, 2012).

<sup>42.</sup> Wallace, 472 U.S. at 99 n.4 (Rehnquist, J., dissenting) (citing MASS. CONST. OF 1780, part 1, art. III; N.H. CONST. OF 1784, art. VI, both of which authorize the legislature to require towns, etc., to support "protestant teachers of piety" out of public funds); MASSACHUSETTS, COLONY TO COMMONWEALTH 128 (Robert J. Taylor ed., University of North Carolina Press 1961); SUSAN E. MARSHALL, THE NEW HAMPSHIRE STATE CONSTITUTION: A REFERENCE GUIDE 228 (G. Alan Tarr ed., 2004). Justice Rehnquist's list also seems to suggest that the Constitution of Rhode Island (1842) is an example. But I believe this is a mistake, since this document opens: "We, the people of the State of Rhode Island and Providence Plantations, grateful to Almighty God for the civil and religious liberty which He hath so long permitted us to enjoy, and looking to Him for a blessing upon our endeavors to secure and to transmit the same unimpaired to succeeding generations, do ordain and establish the constitution of government," and continues: "no man shall be compelled to frequent or to support any religious worship, place or ministry whatever . . .; nor enforced, restrained, molested, or burdened in his body or goods; nor disqualified from holding any office; nor otherwise suffer on account of his religious belief." R.I. CONST. (1842),available http://www.stateconstitutions.umd.edu/Search/results.aspx?srch=1&state=%27RI%27&C ID=194,195&art=&sec=&amd=&key=&Yr=#C1 (last visited July 13, 2012).

<sup>43.</sup> Letter from Thomas Jefferson to The Danbury Baptists (Jan. 1, 1802), in 55.1 CHURCH AND STATE 13 (2003), available at http://go.galegroup.com/ps/i.do?id=GALE%7CA82263269&v=2.1&u=lom\_waynesu&it=r&p=AONE&sw=w.

<sup>44.</sup> Id.

differences; Jefferson's, however, is arguably a more sustainable basis for a nation of radical religious diversity.

In 1816 Jefferson wrote that, while he was "certainly not an advocate for frequent and untried changes in laws and constitutions," he realized that as "new discoveries are made, new truths disclosed, and manners and opinions change with the change of circumstances, institutions must change also, and keep pace with the times. We might as well require a man to wear still the coat which fitted him as a boy," he continued, "as civilized society to remain ever under the regimen of their barbarous ancestors. It his, as the subsequent history of church and state in America vividly illustrates, he was certainly correct; not least because, in due course, it would be a Jeffersonian understanding of the Establishment Clause, and not a Madisonian, that came to predominate.

#### III. A NEW WORLD IN THE NEW WORLD: MONKEYING WITH SCIENCE

As Jefferson foresaw, before long new discoveries had been made, new truths discovered. The Darwin's Origin of Species was published in 1859<sup>48</sup>, and his Descent of Man, applying the theory of evolution to human beings, in 1871<sup>49</sup>. Moreover, new institutions had arisen: specifically, between (roughly) 1880 and 1920, a system of public schools. These intellectual and social shifts form the backdrop to the long series of legal battles over the teaching of evolution in public high schools that began with the Scopes "Monkey Trial" in 1925—and continue today, only now in the form, not of criminal trials, but of constitutional cases over alleged violations of the Establishment Clause. The Clause of the Establishment Clause.

<sup>45.</sup> Letter from Thomas Jefferson to Samuel Kercheval (June 12, 1816), reprinted in Teaching American Hist., http://teachingamericanhistory.org/library/index.asp?document=459 (last visited Mar. 26, 2012).

<sup>46.</sup> Id.

<sup>47.</sup> I don't mean to suggest, of course, that evolution was a wholly new idea; there had been many anticipations, from Empedocles to Darwin's own time. But this idea became a real, explanatory theory only when Darwin hypothesized a mechanism—natural selection—and provided detailed evidence of its operation. See PETER J. BOWLER, EVOLUTION: THE HISTORY OF AN IDEA (Univ. of California Press 3d ed. 2003); EDWARD J. LARSEN, EVOLUTION: THE REMARKABLE HISTORY OF A SCIENTIFIC THEORY (Modern Library 2004).

<sup>48.</sup> CHARLES DARWIN, THE ORIGIN OF SPECIES (J.W. Burrow ed., Penguin Books 1968) (1859).

<sup>49.</sup> CHARLES DARWIN, DESCENT OF MAN (1871).

<sup>50.</sup> See Edward A. Krug, The Shaping of the American High School XIII (1964).

<sup>51.</sup> See infra Sections IV, V, and VI.

When the *Origin* was published, there was a storm of religious protest: the Bishop of Oxford, "Soapy Sam" Wilberforce, accused Darwin of "a tendency to limit the glory of God in creation," declaring that his theory "contradict[ed] the revealed relations of creation to its Creator", <sup>52</sup> philosopher of science William Whewell refused to allow the book in the library at Trinity College, Cambridge. <sup>53</sup> When *The Descent of Man* was published, Pope Pius IX denounced it as "a system . . . repugnant at once to history, to the tradition of all peoples, to exact science, to observed facts, and even to Reason itself." Others, however—among them William Temple, the future Archbishop of Canterbury—soon accepted the evolutionary picture, and saw no conflict with their faith. <sup>55</sup>

Darwin himself—"a complicated man, . . . with a brilliant mind and a soft heart and a stomach that jiggled like a paint-mixing machine" seems to have been bewildered and distressed by the materialistic implications of, and religious reaction to, his ideas: As a young man, he had spent three years preparing to enter the Anglican ministry, and was quite familiar with William Paley's *Natural Theology*; 7 in the *Origin* he explains at length how a complex organ like the eye—the example Paley had used to illustrate his "Watchmaker" version of the design argument for the existence of God 58—could have evolved. 9 In 1860 he wrote, with characteristic ambivalence: "I had no intention to write atheistically, but I own that I cannot see as plainly as others do . . . evidence of design and beneficence on all sides."

<sup>52. 1</sup> ANDREW DICKSON WHITE, A HISTORY OF THE WARFARE OF SCIENCE WITH THEOLOGY IN CHRISTENDOM 70 (Dover ed., 1960) (1896).

<sup>53.</sup> *Id.* at 84. Whewell was the author of one of the Bridgewater Treatises, a series of books making the same design argument as Paley. *See* DAVID QUANNEM, THE RELUCTANT MR. DARWIN: AN INTIMATE PORTRAIT OF CHARLES DARWIN AND THE MAKING OF HIS THEORY OF EVOLUTION 31-32 (W. W. Norton 2006).

<sup>54.</sup> DOUGLAS J. FUTUYMA, SCIENCE ON TRIAL: THE CASE FOR EVOLUTION 24 (Pantheon Books, 1st ed. 1983).

<sup>55.</sup> See JÓZEF ŻYCIŃSKI, GOD AND EVOLUTION: FUNDAMENTAL QUESTIONS OF CHRISTIAN EVOLUTIONISM 15 (Kenneth W. Kemp & Zuzanna Maslanka trans., 2006).

<sup>56.</sup> QUANNEM, supra note 53, at 86.

<sup>57.</sup> WILLIAM PALEY, NATURAL THEOLOGY: EVIDENCES OF THE EXISTENCE AND ATTRIBUTES OF THE DEITY FROM THE APPEARANCES OF NATURE (Matthew D. Eddy & David Knight eds., 2006) (1802).

<sup>58.</sup> Id.

<sup>59.</sup> DARWIN, *supra* note 48, at 217.

<sup>60.</sup> Letter from Charles Darwin to Asa Gray in Martin Gardner, The Religious Views of Stephen Gould and Charles Darwin, 23.4 SKEPTICAL INQUIRER 8, 8 (July-Aug. 1999).

Philosophical intervention #1: Just to be clear (because the question of the bearing of Darwin's theory on religious beliefs is so confusing):

- the theory of evolution is indisputably logically incompatible with a literal reading of the book of Genesis;
- equally indisputably, it undermines the design argument for the existence of God.
- It is not, however, formally incompatible with the idea of a creator God working through the medium of evolution, though it is in marked tension with the notion of human beings as the Chosen Creatures, made in God's image.

Nor was Darwin's work immediately and universally accepted in the scientific community. In 1866 Lord Kelvin's calculation of the age of the earth (at around 100 million years) seemed to show that there hadn't been enough time for evolution to work;<sup>61</sup> and in 1867 Fleeming Jenkin pointed out that on the then-accepted "blending" theory of inheritance, new traits would soon be blended away.<sup>62</sup> But by the end of the nineteenth century Henri Bequerel had decisively rebutted Kelvin's calculations;<sup>63</sup> and with the rediscovery of Gregor Mendel's particulate theory of inheritance<sup>64</sup> the way was clear for the integration of Mendelian genetics with Darwin's idea of natural selection.<sup>65</sup>

Not long after Darwin published the *Origin*, a system of public high schools was underway,<sup>66</sup> and the era in which most children were educated, insofar as they were educated at all, either by their parents or in church schools, was over. Public education was conceived very differently from the traditional "gentleman's" education based on the classics; and by the turn of the twentieth century the theory of evolution had begun to enter public-high-school textbooks.<sup>67</sup> After World War I, however, fundamentalism and Biblical literalism were on the rise in the

<sup>61.</sup> QUANNEM, supra note 53, at 210-12; LARSEN, supra note 47, at 121.

<sup>62.</sup> LARSEN, supra note 47, at 121-22 (citing Fleeming Jenkin, *The Origin of Species*, 46 N. BRITISH REV. 290 (1867)).

<sup>63.</sup> QUANNEM, supra note 53, at 229.

<sup>64.</sup> See Genetics and Genomics Timeline, GENOME NEWS NETWORK, available at http://www.genomenewsnetwork.org/resources/timeline/1866\_Mendel.php (last visited July 13, 2012). On what Darwin may (or may not) have known about Mendel's work, see The Correspondence of Charles Darwin, Manuscripts Room Univ. Lib. Cambridge CB3 9DR, available at http://members.shaw.ca/mcfetridge/darwin.html (last visited July 13, 2012).

<sup>65.</sup> BOWLER, supra note 47, at 260-61.

<sup>66.</sup> KRUG, supra note 50.

<sup>67.</sup> EDWARD J. LARSEN, TRIAL AND ERROR: THE AMERICAN CONTROVERSY OVER CREATION AND EVOLUTION 7-27 (Oxford Univ. Press 1985).

U.S., 68 and the idea of evolution quickly came to be associated with immorality, license, modernity, and all the excesses of the Jazz Age. 69 Not surprisingly, public concern about the content of these evolutionary high-school texts grew apace. The ambitiously-named World's Christian Fundamentals Association (WCFA) was soon urging that teaching evolution harmed adolescents' spiritual and moral development; and William Jennings Bryan launched a campaign to "drive Darwinism from our schools." Laws banning the teaching of evolution were passed in Oklahoma in 1923 and in Florida in 1924; and in 1925 Tennessee followed suit with the Butler Act, making it a criminal offense to teach evolution in a public high school.

The American Council for Civil Liberties (ACLU) advertized for volunteer defendants to test these anti-evolution statutes; and local businessmen in Dayton, Tennessee—hoping that a trial would give their town an economic boost—found the volunteer who gave his name to what was known (at least until the O. J. Simpson trial) as "the trial of the century": the Scopes Monkey Trial. <sup>74</sup> John Scopes was a young teacher, not of biology, but of physics and mathematics; he had, however, conducted a review for the final exam in a biology class using George Hunter's evolutionary text. <sup>75</sup> With William Jennings Bryan (who died just days after the trial ended) recruited by the WCFA to lead the prosecution, Clarence Darrow recruited by the ACLU for the defense, H. L. Mencken reporting for the *Baltimore Sun*, and the proceedings followed avidly at home and abroad, the Scopes trial must have been—if not quite the legal, social, and religious melodrama portrayed in *Inherit the Wind* <sup>76</sup>— quite a circus. <sup>77</sup>

<sup>68.</sup> See Jeffrey P. Moran, Introduction: The Scopes Trial and the Birth of Modern America, in The Scopes Trial: A Brief History With Documents (2002). On fundamentalism in the U.S., see George M. Marsden, Understanding Fundamentalism and Evangelicalism (1991).

<sup>69.</sup> MORAN, supra note 68.

<sup>70.</sup> On the origins of the WCFA, see MORAN, supra note 68, at 13. Sinclair Lewis's Elmer Gantry was modeled in part on John Roach Straton, who led the anti-evolution movement in the WCFA. See LARSEN, TRIAL AND ERROR, supra note 67, at 13; SINCLAIR LEWIS, ELMER GANTRY (Penguin Books 1967) (1927). I notice that this novel of Lewis's is dedicated "to H. L. Mencken, with profound admiration."

<sup>71.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 27.

<sup>72.</sup> Id. at 51, 53.

<sup>73.</sup> Id. at 54-57.

<sup>74.</sup> EDWARD CAUDILL, *Introduction*, in EDWARD CAUDILL ET AL., THE SCOPES TRIAL: A PHOTOGRAPHIC HISTORY 4-5 (2000).

<sup>75.</sup> GEORGE WILLIAM HUNTER, A CIVIC BIOLOGY (American Book Co. 1914).

<sup>76.</sup> JEROME LAWRENCE & ROBERT E. LEE, INHERIT THE WIND (Random House 1955). There have also been two movie versions. INHERIT THE WIND (MGM/UA Home Video

Scopes, who of course didn't deny having taught evolution, was duly convicted, and fined \$100 (the minimum sentence). Repeal, the Tennessee Supreme Court affirmed the Butler Act, but overturned Scopes's conviction on a technicality: the fine should have been set by the jury, not the judge. So there was no further opportunity to challenge the Act. Moreover, even if there had been such an opportunity, Scopes's team could not have relied on the Establishment Clause of the First Amendment to the U.S. Constitution, which then applied only to federal law; they would have had to rely on the Constitution of the State of Tennessee—where, at the time, the relation of church and state was, in the words of one commentator, "more like a door" than a wall.

So it might look as if the ACLU lost this opening battle in the evolution wars; but in fact things are a lot more complicated. The trial seems to have dampened legislators' ardor for banning evolution: the anti-evolution Act Oklahoma had passed in 1923 was repealed in 1925, and anti-evolution bills were defeated in Virginia (1926), Florida, West Virginia, Delaware, California, North Dakota, Minnesota, New Hampshire, and Maine (1927). However, two such bills, in Mississippi and Arkansas, succeeded. Moreover, the trial seems to have had a significant effect on textbook publishers, who began a kind of self-censorship. Hunter's *Civic Biology*—the text Scopes had used—was re-edited to minimize its evolutionary aspects; and other textbook editors fell in line.

So for a couple of decades there was a kind of uneasy truce; until, with important changes both in fundamentalist resistance to evolution and in government support of science, and against the background of a

<sup>1991) (</sup>directed by Stanley Kramer); INHERIT THE WIND (MGM Home Entertainment 1999) (directed by Daniel Petrie).

<sup>77.</sup> There is an enormous amount of literature on the Scopes trial. See e.g., RAY GINGER, SIX DAYS OR FOREVER? TENNESSEE V. JOHN THOMAS SCOPES (Beacon Hill Press 1958); EDWARD J. LARSEN, SUMMER FOR THE GODS: THE SCOPES TRIAL AND AMERICA'S CONTINUING DEBATE OVER SCIENCE AND RELIGION (Basic Books 1997); CAUDILL ET AL., supra note 74; MORAN, supra note 68. A wealth of original materials is available at http://law2.umkc.edu/faculty/projects/ftrials/scopes/scopes.htm (last visited July 13, 2012).

<sup>78.</sup> Scopes v. State, 289 S.W. 363 (Tenn. 1927).

<sup>79.</sup> Id. at 367.

<sup>80.</sup> MORAN, supra note 68, at 34.

<sup>81.</sup> CAUDILL ET. AL., supra note 74, at 13-18.

<sup>82.</sup> Id. at 18.

<sup>83.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 75-79.

<sup>84.</sup> Id. at 79-81.

<sup>85.</sup> Id. at 79-81; see also Judith V. Grabiner & Peter D. Miller, Effects of the Scopes Trial: Was it a Victory for Evolutionists?, 185 SCIENCE 832, 832-36 (1974).

new, stronger, and more expansive reading of the Establishment Clause, hostilities broke out again.

### IV. YOUR ESTABLISHMENT CLAUSE AT WORK: OUTLAWING OUTLAWING EVOLUTION

In 1947 the legal understanding of the Establishment Clause had taken a very significant turn—or rather, two very significant turns. Long understood, as Justice Story had said, as barring the establishment of a national church, in Everson (1947)86 it was applied for the first time to the states, under the "due process" clause of the Fourteenth Amendment. 87 Mr. Everson had challenged a New Jersey statute authorizing reimbursing parents for children's bus fare to school, including both public and Catholic schools. Justice Black wrote for the majority of the Supreme Court that the Establishment Clause requires government *neutrality* with respect to religion: 88 meaning, at a minimum, that neither federal nor state governments can set up a church, pass laws favoring one religion over others, or religion over non-religion, force anyone to profess belief or go to church, or not to, or levy a tax, large or small, to support religious activities; and then concludes—rather surprisingly, given the last clause—that the New Jersey provision fell just barely on the right side of this line, and was therefore constitutional.89

Because this was the first application of the Establishment Clause to the states, it is easy to miss the fact that *Everson* also makes another, no less important, innovation: a shift from a Madisonian to a Jeffersonian understanding of its import. 90 As Justice Black writes, borrowing Jefferson's words, "the clause against establishment of religion was

<sup>86.</sup> Everson v. Bd. of Educ. of Ewing Twp., 330 U.S. 1 (1947).

<sup>87.</sup> U.S. CONST. amend. XIV, sec. I ("No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any State deprive any person of life, liberty, or property, without due process of law . . . . ").

<sup>88.</sup> The concept was not entirely new. It had already appeared, long before, in an unreported case, *Minor v. Board of Education of Cincinnati* (1870), where Judge Alphonso Taft had written that "the government is neutral, and, while protecting all [religions], it prefers none, and it disparages none." Minor v. Bd. of Educ. of Cincinnati, in The BIBLE IN COMMON SCHOOLS 391-418 (De Capo Press 1967) (1870); see also Schempp, 374 U.S. at 215 (quoting Judge Taft).

<sup>89.</sup> Everson, 330 U.S. at 15. My conjecture is that this ruling might have gone the other way had the reimbursement been, not to the parents, but to the schools.

<sup>90.</sup> True, the Supreme Court had used the "Wall" metaphor in a much earlier case. See Reynolds, 98 U.S. at 163. But the metaphor was immaterial in that case, where the Court ruled that Mr. Reynold's Mormonism was no defense against a charge of bigamy. Id.

intended to erect a 'wall of separation between Church and State." Even Justice Jackson and Justice Frankfurter, who dissent from the ruling, take this Jeffersonian reading for granted—their objection is that Justice Black should have had the courage of his Jeffersonian convictions and struck down the New Jersey provision. Thus, Justice Jackson: "the undertones of the opinion, advocating complete and uncompromising separation of Church from State, seem utterly discordant with its conclusion yielding support to their commingling in educational matters"; and Justice Frankfurter: "the wall raised between church and state by Virginia's great statute of religious freedom" is "no longer so high or so impregnable" as it was before this decision. (It is also worth noting Justice Black's reference to "religion over non-religion" a distinctly modern idea.)

The key concept of neutrality was further articulated in 1963, when Justice Brennan wrote in his concurring opinion in *Schempp* that neutrality required that government action have neither the *purpose* nor the *effect* either of advancing or of inhibiting religion, <sup>96</sup> and noted a potential difficulty on the horizon: that the tension between the two religion clauses may produce situations where enjoining what appears to be violation of the Establishment Clause "must be withheld . . . to avoid infringement of . . . free exercise."

The stage was set for a new phase in the evolution wars. By now, the WCFA had folded; but a new, larger body, the American Association of Evangelicals, was soon formed;<sup>98</sup> and a 1957 Gallup poll showed that more than four out of five Americans agreed that "religion can answer all or most of today's problems."<sup>99</sup> In 1950 Pope Pius XII had upbraided those who "imprudently and indiscreetly hold that evolution, which has not been fully proved even in the domain of natural sciences, explains the origins of all things," adding that "Communists gladly subscribe to this opinion"<sup>100</sup> (though he did not forbid research on evolution, "insofar

<sup>91.</sup> Everson, 330 U.S. at 16.

<sup>92.</sup> Id. at 19, 29.

<sup>93.</sup> Id. at 19 (Jackson, J., dissenting).

<sup>94.</sup> Id. at 29 (Frankfurter, J., dissenting).

<sup>95.</sup> Id. at 15.

<sup>96.</sup> Schempp, 374 U.S. at 230 (Brennan, J., concurring).

<sup>97.</sup> Id. at 247-48.

<sup>98.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 91.

<sup>99. 2</sup> GEORGE H. GALLUP, THE GALLUP POLL: PUBLIC OPINION 1935-1971 (William P. Hansen & Fred Israel eds., 1972).

<sup>100.</sup> Pope Pius XII, Humani Generis, ¶ 5 (1950), available at http://www.vatican.va/holy\_father/pius\_xii/encyclicals/documents/hf\_p-xii enc 12081950 humani-generis en.html.

as it inquires into the origin of the human *body*"). <sup>101</sup> By 1953, however, James Watson and Francis Crick had solved the structure of DNA <sup>102</sup>—a discovery that in due course would open up a whole other line of evidence supporting evolution. By 1960—fueled, after the launch of the Soviet "Sputnik" in 1957, by fear that the U.S. was losing the space race—government support of scientific research, which in 1927 had amounted to only 0.02% of GDP, had risen to 1.7%. <sup>103</sup> The National Science Foundation, founded in 1950, set up the Biological Science Curriculum Study ("BSCS"); and by the early 1960s new, evolutionary BSCS textbooks were available. <sup>104</sup> In 1967, Tennessee finally repealed the Butler Act. <sup>105</sup>

The decisive legal test of old-style anti-evolution statutes—which by this time survived only in Mississippi and Arkansas—took place in *Epperson v. Arkansas*<sup>106</sup> the following year. The Arkansas statute, passed in 1928 and modeled on the Tennessee law, forbade the teaching of evolution and the use of evolutionary textbooks. <sup>107</sup> But in 1965-66, the Little Rock high school <sup>108</sup> at which Susan Epperson was a science teacher adopted a new, evolutionary text—which, of course, she was required to use. She sought an injunction declaring the 1928 law unconstitutional; and in 1968 the Supreme Court struck down the Arkansas anti-evolution law as a violation of the Establishment

<sup>101.</sup> Id. ¶ 36 (emphasis added).

<sup>102.</sup> James D. Watson & Francis H. Crick, *Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid* (1953), reprinted in James D. Watson, The Double Helix: A Personal Account of the Discovery of the Structure of DNA 237-41 (Gunther S. Stent ed., Norton Critical ed., 1980) (1967).

<sup>103.</sup> See Nat'l Patterns of R&D Resources: 2008 Data Update, NAT'L SCIENCE FOUND., available at http://www.nsf.gov/statistics/nsf10314/content.cfm?pub\_id=4000&id=2 (last visited July 30, 2012).

<sup>104.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 91-92.

<sup>105.</sup> Id. at 104-07.

<sup>106. 393</sup> U.S. 97, 109 (1968) (ruling the Arkansas statute banning the teaching of evolution unconstitutional). Justice Black, who had been raised as a Baptist in Alabama, and was the only Justice to question the truth of evolution, signed on only reluctantly; and his separate opinion finds that the Arkansas law had a non-religious purpose. See LARSEN, TRIAL AND ERROR, supra note 67, at 116-18.

<sup>107.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 79-81.

<sup>108.</sup> Id. at 108 (noting that Little Rock Central High School was the same school to which federal troops were sent to enforce Brown v. Board of Education, 347 U.S. 483 (1954); see also HISTORY OF THE LITTLE ROCK NINE, ARKANSAS.COM, http://www.arkansas.com/central-high/history/default.asp (last visited July 30, 2012).

Clause. 109 Two years later, the state Supreme Court ruled the Mississippi anti-evolution statute unconstitutional. 110

But this was by no means a decisive victory for the supporters of evolution; instead, after *Epperson*, the hostilities moved to another front. Courts' interpretation of the Establishment Clause grew both ampler and more ambivalent; the idea of "creation science" began to gain traction; and so the anti-evolution focus shifted, first from precluding the teaching of evolution to requiring equal time for the teaching of evolution and creationism, and then to requiring "balanced treatment" of evolution and creation science.

#### V. PLUS ÇA CHANGE: THE RISE AND FALL OF "BALANCED TREATMENT"

By 1970, in Walz, 111 we find Justice Burger reflecting on the potential for tension between the Free Exercise and the Establishment Clauses, "either of which," he writes, "if expanded to a logical extreme, could tend to clash with the other"; 112 observing that there is "room for play in the joints [of the Establishment Clause] productive of a benevolent neutrality that will permit religious exercise to exist without sponsorship and without interference"; 113 and introducing the idea that the Establishment Clause precludes "excessive entanglement" of the state with religion 114 (which suggests to me that the Wall of Separation idea, which would presumably imply that any government entanglement with religion would be "excessive," was already causing some difficulty).

The following year, in his ruling in *Lemon*, <sup>115</sup> Justice Burger crafted the three-pronged test to determine whether a statute is constitutional under the Establishment Clause that set the agenda for the new hostilities—the "*Lemon* test," on which (despite much criticism) courts still rely to this day:

- 1. the statute must have a secular purpose; and
- 2. its primary effect must be neither to advance nor to inhibit religion; and

<sup>109.</sup> Epperson, 393 U.S. at 105.

<sup>110.</sup> State v. Smith, 242 So.2d 692, 698 (Miss. 1970).

<sup>111.</sup> Walz v. Tax Comm'n of N.Y.C., 397 U.S. 664, 680 (1970) (ruling a New York statute exempting owners and operators of premises used for religious purposes from property taxes constitutional).

<sup>112.</sup> Id. at 689.

<sup>113.</sup> Id. at 699.

<sup>114.</sup> Id. at 670 (emphasis added).

<sup>115.</sup> Lemon v. Kurtzman, 403 U.S. 602 (1971).

3. it must not foster excessive entanglement with religion. 116

By this time, Justice Burger explicitly acknowledged that cracks were appearing in the Jeffersonian Wall: "the line of separation [between church and state], . . . is a blurred, indistinct, and variable barrier depending on all the particular circumstances."117 The cracks would continue to grow as, sensing the potential for conflict between the distinguish Religion Clauses, courts tried to "reasonable accommodation"118 of religion from "excessive entanglement" with religion; and became increasingly preoccupied not, like the founders, with protecting religion from intrusions by the state and maintaining peace among potentially hostile Christian sects, but with protecting the state from intrusions by religion, and sustaining equity among radically diverse religious, and anti-religious, interests.

Meanwhile, religious opponents of evolution—apparently inspired by the attention paid during the 1964 election to a broadcasting law requiring equal time for opposing political candidates<sup>119</sup>—were warming to the idea of equal time for evolution and creationism; and to the notion that evolution is "just a theory," not a fact. Dozens of bills were attempted based on these ideas, and in 1973 one passed: <sup>120</sup> the Tennessee legislature passed a bill mandating that evolution be presented as only a theory, not a fact; <sup>121</sup> that the Biblical story be given equal time—without such a disclaimer; <sup>122</sup> and that "occult" or "satanical" theories not be taught. <sup>123</sup> The Act was challenged almost immediately, and struck down

<sup>116.</sup> Id. at 612-13. A statute is unconstitutional if it fails any of these clauses; but it satisfies the first clause provided it has some secular purpose.

<sup>117.</sup> Id. at 614.

<sup>118.</sup> See Edwards v. Aguillard, 482 U.S. 578, 617 (1987) (Scalia, J., dissenting) (citing Hobbie v. Unemployment Appeals Comm'n of Fla., 480 U.S. 136 (1987); Thomas v. Review Bd., Ind. Emp't Sec. Div., 450 U.S. 707 (1981); Wisconsin v. Yoder, 406 U.S. 205 (1971); Sherbert v. Verner, 374 U.S. 398 (1963); see also Lee v. Weisman, 505 U.S. 577, 628 (1992) (Souter, J., concurring) (citing Corp. of Presiding Bishop of Church of Jesus Christ of Latter-Day Saints v. Amos, 483 U.S. 327 (1987); Bd. of Educ. of Kyrias Joel Village Sch. Dist. v. Grumet, 512 U.S. 687, 732 (1994) ("Once this Court has abandoned text and history as guides, nothing prevents it from calling religious toleration the establishment of religion").

<sup>119.</sup> The equal opportunities (a.k.a. "equal time") doctrine is codified in 47 U.S.C. § 315(a) (2006), and applies to candidates for political office. The "fairness doctrine," expressed in Applicability of the Fairness Doctrine in the Handling of Controversial Issues of Public Importance, 29 Fed. Reg. 10416, 10416-27 (Jul. 25, 1964), applied this to conflicting views on "issues of public importance."

<sup>120.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 134-39.

<sup>121.</sup> Id. at 134-35.

<sup>122.</sup> Id. at 135.

<sup>123.</sup> Id. at 137.

by the sixth circuit in *Daniel v. Waters* (1975)<sup>124</sup> as patently in violation of the Establishment Clause.

The self-styled "Creation Science Research Center" (CSRC), an offshoot of the earlier Creation Research Society (CRS), had been set up in the late 1960s in response to disputes over biology textbooks in California. 125 In 1981 the CSRC challenged the California system of science instruction under the Free Exercise clause. 126 In Schempp, Madalyn Murray had argued that Bible readings in school violated her son's right to disbelieve; 127 in Segraves v. California—in the spirit of Justice Burger's remarks about the potential tension between the two clauses—Nell Segraves argued that teaching evolution and only evolution violated her son's right to believe. 128 But this strategy didn't fly: in a compromise decision, a California court found that, given that it had an "anti-dogmatism" policy, the state hadn't infringed Segraves's rights; but ordered the Board of Education to disseminate the anti-dogmatism statement to officials, teachers, textbook publishers, etc. 129

Meanwhile, potentially more legally effective ideas were brewing. Several bodies—the original CRS and its offspring, the CSRC and the Institute for Creation Research (ICR)<sup>130</sup>—were promoting the Biblical account of creation as a bona fide scientific theory, a rival to the evolutionary account, supported by empirical evidence.<sup>131</sup> In 1978 Wendell Bird published a student note in the Yale Law Journal reviving the argument that teaching only evolution violated Free Exercise, reading Daniel as precluding only the teaching of religious creationism, and proposing that schools "neutralize" their curricula by teaching both evolution and scientific creationism.<sup>132</sup> After graduating, he joined the ICR as a staff attorney, and updated their older equal-time model statute in the form of a model law requiring "balanced treatment" of these

<sup>124. 515</sup> F.2d 485, 488-92 (6th Cir. 1975) (ruling statute mandating equal time for evolution and creationism unconstitutional).

<sup>125.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 123.

<sup>126.</sup> Id. at 128-29.

<sup>127.</sup> Schempp, 374 U.S. at 211-12, 225.

<sup>128.</sup> See Segraves v. California, No. 278978 (Cal Sup. Ct. June 12, 1981), available at http://ncse.com/creationism/legal/segraves-v-california.

<sup>129.</sup> Id.

<sup>130.</sup> For more details about these and other creationist organizations, see RAYMOND A. EVE & FRANCIS B. HARROLD, THE CREATIONIST MOVEMENT IN MODERN AMERICA 121-39 (1991).

<sup>131.</sup> Id.

<sup>132.</sup> Note, Freedom of Religion and Science Instruction in Public Schools, 87 YALE L.J. 515, 550-65 (1978). Wendell R. Bird's name does not appear on the article itself, but this Note is listed among Bird's publications in his "Attorney Profile," available at http://www.birdlawfirm.com/attorneys/bird.php (last visited July 30, 2012).

supposedly rival scientific theories. <sup>133</sup> A 1979 Gallup poll concluded that "[h]alf of the adults in the U.S. believe[d] that God created Adam and Eve to start the human race." <sup>134</sup> In 1980, presidential candidate Ronald Reagan described evolution as "a theory only," and endorsed the equaltime idea. <sup>135</sup> "Balanced Treatment" acts were soon passed in Louisiana (1980) <sup>136</sup> and Arkansas (1981). <sup>137</sup>

But even before the governor had signed the Arkansas law, the ACLU had vowed to challenge it, <sup>138</sup> and the following year, in *McLean v. Arkansas*, <sup>139</sup> Judge Overton found that the Act flunked all three clauses of the *Lemon* test: the records of those who lobbied and voted for it clearly revealed that the purpose was to advance religious agenda; and moreover—since creation science really isn't science at all, <sup>140</sup> so that "balanced treatment" would require omitting large parts of the biology curriculum—it would inevitably lead to excessive government entanglement with religion. By this point, you will notice, courts found themselves in the very curious position of having to rule on what is, and what isn't, science—which is by *no* stretch of the imagination a legal question.

Philosophical intervention # 2: Just to be clear (because demarcating genuine science from pretenders has become so legally significant): 141

• though several candidate criteria have been proposed, most famously Karl Popper's "falsifiability" criterion, there is no

<sup>133.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 149-50.

<sup>134.</sup> Id. at 130.

<sup>135.</sup> Id. at 126-27.

<sup>136.</sup> Id. at 153-56.

<sup>137.</sup> Id. at 151-53.

<sup>138.</sup> Id. at 153-56.

<sup>139.</sup> McLean v. Ark. Bd. of Educ., 529 F. Supp. 1255, 1274 (E.D. Ark. 1982) (ruling Arkansas balanced treatment statute unconstitutional).

<sup>140.</sup> Not surprisingly, because in this part of his ruling Judge Overton relied heavily on the testimony of plaintiff's expert Michael Ruse (who had offered a more-than-somewhat dubious quasi-Popperian account of the criteria of demarcation of the genuinely scientific), this case soon became quite famous—or rather, notorious—in philosophy-of-science circles. Ruse's testimony is reprinted, along with a critique by Larry Laudan, Science at the Bar—Causes for Concern (1982), in BUT IS IT SCIENCE? THE PHILOSOPHICAL QUESTIONS IN THE CREATION/EVOLUTION CONTROVERSY 287-306, 351-55 (Michael Ruse ed., Prometheus Books 1996) [hereinafter RUSE].

<sup>141.</sup> The demarcation issue appears not only in constitutional cases like *McLean*, but also in cases involving the admissibility of scientific testimony. *See* Susan Haack, *Federal Philosophy of Science: A Deconstruction—And a Reconstruction*, NYU J. OF L. AND LIBERTY 394 (2010).

- generally agreed criterion of what distinguishes real science from pretenders. 142
- In any case, the search for such a criterion is not well-motivated: it is always better, rather than sneering at "pseudo-science," to say specifically what is wrong with the work you are criticizing. 143
- What is specifically wrong with creation science is that it runs contrary to the vast, interlocking body of evidence—of the age of the earth, the distribution of fossils, embryology, molecular biology, etc.—that supports the theory of evolution, and that it rests its entire case on supposed difficulties in evolutionary theory.

The final blow to "balanced treatment" came with Edwards (1987), 144 when the Supreme Court struck down the Louisiana statute providing that, if evolution was taught, scientific creationism should be taught as well. The ostensible purpose was "academic freedom"; but Justice Brennan's ruling makes short work of this. 145 It is clear from the legislative history, he argues, that the real purpose was to narrow biology teaching, preferably by cutting out evolution; so the Louisiana Act flunks the first clause of Lemon. 146 Nor, he continues, does obliging teachers to teach creation science have the effect of advancing academic freedom; so the Act also flunks the second clause. 147 But, even though the Supreme Court had relied on it in all but one of its Establishment Clause cases since 1971, 148 the *Lemon* test continued to be controversial: dissenting from the majority in Edwards, Justice Scalia (joined by Justice Rehnquist, also a long-time critic of Lemon, and also a sympathizer with a more modest, Madisonian understanding), argued that the "purpose" clause was misconceived—legislators will likely have many and various reasons for voting as they do; moreover, even if it were proper to invalidate legislation solely on the basis of its motivation, all the evidence the Court had was that the Louisiana legislature intended, as the

<sup>142.</sup> See Larry Laudan, The Demise of the Demarcation Problem (1983), reprinted in RUSE, supra note 140, at 337-50.

<sup>143.</sup> Id.; see also Haack, Six Signs of Scientism, supra note 8.

<sup>144. 482</sup> U.S. at 585, 596-97 (ruling Louisiana statute requiring that if evolution is taught, creation science also be taught, unconstitutional).

<sup>145.</sup> Id. at 582-93.

<sup>146.</sup> Id. at 585-89.

<sup>147.</sup> Id. at 587.

<sup>148.</sup> Marsh v. Chambers, 463 U.S. 783 (1983) (ruling that opening the Nebraska legislature with prayers by a state-paid chaplain doesn't violate the Establishment Clause).

defendants claimed, to protect students from being indoctrinated by exposure only to a theory which advances the agenda of secular humanism.<sup>149</sup>

After the failed attempt to introduce creation science into the curriculum, one Louisiana school board adopted a disclaimer statement to the effect that evolution was presented "to inform students of the scientific concept," not to dissuade them from "the Biblical version of creation or any other concept";150 and urging them to "exercise critical thinking" and "gather all information possible" in forming an opinion on questions. 151 The District Court—acknowledging Establishment Clause jurisprudence was rife with confusion but also that, for all its flaws, Lemon remained the law—ruled that the disclaimer flunked the second (effect) clause of Lemon, and hence was unconstitutional. 152 The Appeals Court confirmed; 153 and the Supreme Court denied certiorari, 154 despite Justice Scalia's plea that they should take the case, "if only [as an] opportunity to inter the Lemon test once and for all "155

#### VI. THE WAY WE LIVE NOW: DÉJÀ VU ALL OVER AGAIN

But the bulge under the constitutional carpet still hasn't gone away. While Freiler v. Tangipahoa Board of Ed. was winding its way through the courts, another idea was catching the imagination of religious opponents of evolution: Intelligent Design Theory (IDT). The "design" idea had already crept into a religiously-oriented biology text, Of Pandas and People, 156 a couple of years after Edwards. And in 1996—the very

<sup>149.</sup> Edwards, 482 U.S. at 610 (Scalia, J., dissenting).

<sup>150.</sup> Freiler v. Tangipahoa Parish Bd. of Educ., 975 F. Supp. 2d 819, 821 (E.D. La. 1997).

<sup>151.</sup> *Id.* 

<sup>152.</sup> Id. at 830-31.

<sup>153.</sup> Freiler v. Tangipahoa Parish Bd. of Educ., 185 F.3d 337, 349 (5th Cir. 1999).

<sup>154.</sup> Tangipahoa Parish Bd. of Educ. v. Freiler, 530 U.S. 1251 (2000).

<sup>155.</sup> Id.

<sup>156.</sup> See Percival Davis & Dean H. Kenyon, Of Pandas and People (Charles B. Thaxton ed., 2d ed. 1989). On the history of the various drafts and editions of this text, see also *Transcript of Barbara Forrest*, Kitzmiller v. Dover Area Sch. Dist., 400 F. Supp. 2d 707 (M.D. Pa. 2005). It is worth noting that at pages 91-113 Davis and Kenyon make a big deal of the supposed absence of transitional fossils—especially of transitional fossils between fish and reptiles. But while the Dover School Board was wrangling over what biology text to buy, paleontologists had discovered the fossilized remains of the Tiktaalik, a crocodile-headed fish with bones in its fins resembling limbs. See Edward B. Deaschler, Neil Shubin, & Farish A. Jenkins, Jr., A Devonian Tetrapod-like Fish and the Evolution of The Tetrapod Body Plan, 440 NATURE 757, 757-63 (2006).

year in which Pope John Paul II acknowledged that evolution is "more than a hypothesis" Michael Behe's book, Darwin's Black Box, 158 seemed to give IDT scientific credentials: 159 an argument that some biological mechanisms, such as the bacterial flagellum, 160 are "irreducibly complex": i.e., they require many parts working together, none of which would have any evolutionary advantage by itself; and so couldn't have evolved, but must have been the result of intelligent design. 161 The Center for Science and Culture at the Discovery Institute soon latched onto the intelligent design idea—which, their nownotorious Wedge Document affirms, "promises to reverse the stifling dominance of the materialist worldview, and to replace it with a science consonant with Christian and theistic convictions," while at the same time offering a way around the legal barrier posed by Edwards. 162

The first legal test of IDT began in 2004 with a kerfuffle in Dover, Pennsylvania, where the high school curriculum committee was deciding what new biology textbook to buy. 163 The science teachers wanted the new edition of a standard text, Miller and Levine's *Biology*; 164 but Bill Buckingham, the retired corrections officer who chaired the committee, wanted a book that wasn't, like this one, "laced with Darwinism." He approached the Discovery Institute, which advised him not even to

<sup>157.</sup> Pope John Paul II, Truth Cannot Contradict Truth: Message on Evolution to the Pontifical Academy of Sciences, 88 ACTA APOSTOLICAE SEDIA ¶ 4 (Oct. 22, 1996), available at http://www.ewtn.com/library/papaldoc/jp961022.htm.

<sup>158.</sup> MICHAEL J. BEHE, DARWIN'S BLACK BOX: THE BIOCHEMICAL CHALLENGE TO EVOLUTION (Free Press 1996).

<sup>159.</sup> And in 1999, William Dembski gave IDT a mathematical gloss. William A. Dembski. Intelligent Design: The Bridge Between Science & Theology (InterVarsity Press 1999).

<sup>160.</sup> A little tail that enables some bacteria to move about, which looks for all the world like a tiny rotary motor. For a brief description (and a sketch of an evolutionary explanation), see NAT'L ACADEMY OF SCIENCES, INSTITUTE OF MEDICINE, SCIENCE, EVOLUTION, AND CREATIONISM 40 (Nat'l Academies Press 2008).

<sup>161.</sup> See BEHE, supra note 158, at 187-208.

<sup>162.</sup> See BARBARA FORREST & PAUL R. GROSS, CREATIONISM'S TROJAN HORSE: THE WEDGE OF INTELLIGENT DESIGN (Oxford University Press 2004); EDWARD HUMES, MONKEY GIRL: EVOLUTION, EDUCATION, RELIGION, AND THE BATTLE FOR AMERICA'S SOUL 63-76 (Harper Collins 2007). See also The 'Wedge Document': So What?, DISCOVERY INSTITUTE, available at http://www.discovery.org/a/2101 (last visited July 30, 2012).

<sup>163.</sup> See HUMES, supra note 162, at 40.

<sup>164.</sup> KENNETH R. MILLER & JOE LEVINE, BIOLOGY: THE LIVING SCIENCE (Prentice Hall 2000). Prof. Miller, a Roman Catholic, is also the author of FINDING DARWIN'S GOD: A SCIENTIST'S SEARCH FOR COMMON GROUND BETWEEN GOD AND EVOLUTION (Cliff Street Books 1999).

<sup>165.</sup> HUMES, supra note 162, at 42.

mention creationism—an invitation to lawsuits; <sup>166</sup> and the Thomas More Law Center, which suggested *Pandas* as a suitable text, and told him they were looking for an IDT case they could pursue. <sup>167</sup> Eventually, the school board voted to buy the new edition of the old, evolutionary text, but mandated a one-minute disclaimer statement to be read to students before ninth-grade biology. <sup>168</sup> This statement bears quoting in full:

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

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

Intelligent Design is an explanation of the origin of life that differs from Darwin's view. The reference book, Of Pandas and People, [169] is available for students who might be interested in gaining an understanding of what intelligent design actually involves.

With respect to any theory, students are encouraged to keep an open mind. The school leaves the discussion of the Origin of Life to individual students and their parents. As a standards-driven district, class instruction focuses on preparing students to achieve proficiency on Standards-based assessments.[170]

This is really a shocker: quite apart from the weak grammar, the wonky capitalization, and the sneaky suggestion that the school teaches evolution only because the state obliges it to, there is the glaring contradiction in the second paragraph (where the denigratory idea that evolution is "just a theory" sits alongside an optimistic definition that

<sup>166.</sup> Id. at 76-78.

<sup>167.</sup> Id. at 78.

<sup>168.</sup> Id. at 103.

<sup>169. [</sup>Note added by Author]. Sixty copies of which had, mysteriously, been anonymously donated to the school. In his deposition, Buckingham said he didn't know where the funds to buy these books had come from; at trial, however, he admitted that he had appealed at his church for donations for this purpose. *Kitzmiller*, 400 F. Supp. 2d at 736.

<sup>170. [</sup>Note added by Author]. Id. at 708-09.

requires that any and all theories be well-tested), <sup>171</sup> the false assumption that the theory of evolution aspires to explain the origin of life, and the truly bizarre suggestion that this enormously difficult scientific question might be settled by schoolchildren and their parents around the kitchen table.

Philosophical intervention #3: Just to be clear (because there is so much confusion over "theory").

- Yes, the theory of evolution is a theory; yes, there are relevant phenomena as-yet less-than-perfectly understood, and disagreements among evolutionary biologists; and yes, it is possible in principle that, like any scientific theory, the theory of evolution might eventually turn out to be mistaken.
- But if the theory of evolution is true, evolution is a fact.
- Moreover, to call something a theory is not to say that it is just someone's opinion. Some scientific theories are very wellwarranted indeed.
- Modern evolutionary theory—i.e., the much-refined version of Darwin's theory to which biologists refer as the "neo-Darwinian synthesis"—is such a well-warranted theory, anchored in a whole vast mesh of different kinds of evidence. 172
- IDT, however, isn't really a theory at all: saying nothing about the nature of the supposed designer or its purposes or, most importantly, about how it made bacterial flagella, etc., it doesn't explain anything.

But of course, when Tammy Kitzmiller and other parents of children in the school sued the Dover School District, the claim wasn't that the disclaimer statement was poorly written, ill-informed, stupid, or sneaky—though it is certainly all of these—but that it was in violation of the Establishment Clause.<sup>173</sup> Nevertheless (in sharp contrast to the Scopes trial, where Judge Raulston had excluded all but one of Darrow's expert witnesses)<sup>174</sup> the trial soon became, as Judge Jones observed, a

<sup>171.</sup> Far too optimistic, in my opinion; not only are plenty of earlier scientific theories by now known to be false, but also plenty of current scientific theories are as yet untested—but are, nonetheless, theories.

<sup>172.</sup> See What is the Evidence for Evolution?, UNIV. OF CAL. MUSEUM OF PALEONTOLOGY: UNDERSTANDING EVOLUTION, http://evolution.berkeley.edu/evolibrary/search/topics.php?topic\_id=14 (last visited July 30, 2012).

<sup>173.</sup> Kitzmiller, 400 F. Supp. 2d at 708-11.

<sup>174.</sup> LARSEN, TRIAL AND ERROR, supra note 67, at 68.

kind of science lesson, with a whole parade of scientific witnesses explaining the evidence for evolution—by this time immeasurably stronger than when Darwin wrote; suggesting how the bacterial flagellum could have evolved; and arguing that IDT is not science but theology. Moreover, retired Georgetown theologian John Haught testified that IDT was, to boot, an "appalling" theology that "belittles God." But the plaintiffs' most effective witness, probably, was Barbara Forrest, who testified that the sole difference between the old, pre-Edwards and the new, post-Edwards editions of Pandas was that the words "creation" and "creator" had been replaced throughout by "intelligent design" and "designer." (In one draft the editors had slipped up, and introduced the now-notorious typographical farrago "cdesign proponentists"; but the plaintiffs' attorneys decided not to use this typo at trial—that would be rubbing salt into an already fatal wound!)

Evidence of a creationist agenda was crucial to Judge Jones's ruling. In 1984, in her concurrence in *Lynch*, <sup>178</sup> Justice O'Connor had proposed a clarification of the "purpose" and "effect" clauses of *Lemon*: a statute should neither subjectively express (purpose) nor objectively convey to a reasonable observer (effect) either government endorsement or government disapproval of religion; <sup>179</sup> and a few years later, in his ruling in *Allegheny v. ACLU* (1989), Justice Blackmun had adopted her clarification as a "sound analytical framework." <sup>180</sup> The appeal of Justice O'Connor's formulation—even though, as we shall see, in fact it is far from transparently clear—was, I conjecture, its appropriateness to the times: for by the 1980s the chief danger to be avoided was not, as it once was, hostility among the various Protestant sects, or even between Catholics and Protestants, or Christians and Jews, but that some Americans, whether atheists, Protestants, Catholics, Christians, Jews, Muslims, Hindus, Buddhists, practitioners of Santería or Wicca or . . . ,

<sup>175.</sup> JUDGMENT DAY: INTELLIGENT DESIGN ON TRIAL, PBS NOVA (2007), available at http://www.pbs.org/wgbh/nova/evolution/intelligent-design-trial.html.

<sup>176.</sup> Testimony of John Haught, Kitzmiller, 400 F. Supp. 2d 707.

<sup>177.</sup> See GORDY SLACK, THE BATTLE OVER THE MEANING OF EVERYTHING: EVOLUTION, INTELLIGENT DESIGN, AND A SCHOOL BOARD IN DOVER, PA 108, 215 (Jossey-Bass 2007). For the "cdesign" passage, see *Cdesign Proponentists*, NATIONAL CENTER FOR SCIENCE EDUCATION, available at http://ncse.com/creationism (last visited Mar. 27, 2012).

<sup>178.</sup> Lynch v. Donnelly, 465 U.S. 668, 690 (1984) (O'Connor, J., concurring) (ruling a Christmas display including a crèche, Santa Claus, reindeer, giant candy canes, etc., in a public park constitutional).

<sup>179.</sup> Id.

<sup>180.</sup> Allegheny v. ACLU, 492 U.S. 573, 574 (1989) (ruling a Christmas display of a crèche on courthouse steps unconstitutional, but display of a Christmas tree and a menorah outside the City-County building constitutional).

etc., might feel that their religious affiliation makes them less than full citizens. 181

By the time of Kitzmiller, "endorsement" had become the dominant theme in the Establishment Clause jurisprudence of the third Circuit. So Judge Jones's ruling, that the School Board's policy violated the Establishment Clause, focuses primarily on arguing that this hypothetical "objective observer"—assuming that he knows everything the court knew about the history of the disclaimer and of IDT<sup>182</sup>—would take the disclaimer as an endorsement of religion, since he would know that IDT, and teaching about "gaps" in the theory of evolution, are religious stratagems that grew out of an earlier creationist agenda. 183 Judge Jones also awarded the plaintiffs' costs (on the order of a million dollars) against the defendants, and threatened Buckingham with a perjury charge for having said under oath that he didn't know where the donated copies of Pandas had come from, and had never used the word "creationism" at School Board meetings. 184 In any case, four days after the trial ended, even before the ruling came down, all the Board members involved in the suit had been voted off. 185

The same year, in Selman v. Cobb County School District, <sup>186</sup> another federal court had ruled an evolution disclaimer sticker to the effect that the theory of evolution is a theory, not a fact, and should be "critically considered" with an "open mind"—which had been inserted in the Miller and Levine text, which this school also used—unconstitutional. The ruling in Selman is lower-key than Judge Jones's in Kitzmiller: because, the court held, the purpose of the disclaimer was promote academic

<sup>181.</sup> As this signals, while in the very young United States most citizens were Protestants of one kind or another, over time the country has become more and more diverse in religious affiliation, first with large numbers of Catholic and Jewish immigrants and, by now, with a startling range of religious organizations. Stephen Prothero illustrates this diversity with reference to Flushing, New York, which has over 200 houses of worship. See Prothero, Religious Literacy: What Every American Needs to Know—and Doesn't 25-26 (2007). In his concurrence in Edwards, Justice Powell notes that at the time there were 1,347 religious organizations in the U.S. Edwards, 482 U.S. at 607 (Powell, J., concurring) (citing J. Gordon Melton, Encyclopedia of American Religions (Gale Research Co. 2d ed., 1987). A Supplement to this Encyclopedia issued later the same year raised the number to 1,553. The most recent edition of this Encyclopedia that I could find (7th edition, 2003) listed 2,630.

<sup>182.</sup> A significant assumption, without which Justice O'Connor's formula would not so obviously lead to the desired result.

<sup>183.</sup> Kitzmiller, 400 F. Supp. 2d at 716.

<sup>184.</sup> HUMES, *supra* note 162, at 333.

<sup>185.</sup> Id. at 328-29.

<sup>186. 390</sup> F. Supp. 2d 1286, 1313 (N.D. Ga. 2005) (ruling evolution disclaimer sticker in biology text unconstitutional).

freedom, tolerance, and diversity of opinion, unlike the disclaimer in *Freiler* it satisfied the first (purpose) clause of *Lemon*; but because a reasonable observer would know that it had been prompted by the concerns of religious parents, it flunked the second (effect) clause. The following year a federal court of appeals vacated and remanded the ruling for a further evidentiary hearing; <sup>187</sup> but by the end of 2006, rather than face another trial, the School Board signed an agreement never to place these or similar disclaimers in textbooks again, and to pay \$166,659 in plaintiffs' costs. <sup>188</sup>

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So, are we there yet? Are the evolution wars finally over? Probably not.

A 2004 Gallup poll found that 45% of respondents agreed that "God created human beings pretty much in their present form within the last 10,000 years or so"; 189 and a 2005 Pew Survey found that 42% agreed that "living things have existed in their present form since the beginning of time." 190 The same year, President Bush endorsed the idea that schools should teach both intelligent design and evolution. 191 The year after Kitzmiller, plaintiffs' attorneys Eric Rothschild and Steve Harvey were celebrated in Philadelphia magazine as "Darwin's Angels," 192 and Judge Jones was named by Time magazine as one of the hundred most influential people of the year. 193 But the judge also received death threats, and his family had to be given police protection. 194 In an interview for a Nova documentary, an unrepentant Bill Buckingham complained that Judge Jones must have gone "to clown school, not law school." 195

<sup>187.</sup> Selman v. Cobb Cnty. Sch. Dist., 449 F.3d 1320, 1338 (11th Cir. 2006) (vacating and remanding the district court case decided in 2005).

<sup>188.</sup> Press Release, Cobb Cnty. Sch. Dist., Agreement Ends Textbook Sticker Case (Dec. 19, 2006), available at http://ncse.com/webfm\_send/878; Consent and Order at 172, Selman v. Cobb Cnty. Sch. Dist., 449 F.3d 1320 (11th Cir. 2006) (No. 1:02CV02325).

<sup>189.</sup> QUANNEM, supra note 53, at 14.

<sup>190.</sup> Id. at 15.

<sup>191.</sup> Johanna Neuman, *Inspirations for Doubters of Darwin*, L.A. TIMES, Aug. 3, 2005, at A12.

<sup>192.</sup> Andrew Putz, Darwin's Angels, PHILA., Jun. 2006, at 108-113.

<sup>193.</sup> Matt Ridley, John Jones: The Judge Who Ruled for Darwin, 167.19 TIME 90 (2006).

<sup>194.</sup> See JUDGMENT DAY: INTELLIGENT DESIGN ON TRIAL, supra note 175, at 254-78; HUMES, supra note 162.

<sup>195.</sup> HUMES, *supra* note 162. Humes tells us that Buckingham (and fellow Board member Alan Bonsell) was enthusiastic about David Barton's book, THE MYTH OF SEPARATION, which argues, on the basis of quotations from the founders and Supreme Court decisions between 1795 and 1952, that the idea that the Establishment Clause

In 2008 a Vatican spokesman reiterated that the church recognized the theory of evolution was compatible with an appropriate reading of the Biblical creation story (but added that no apology for the church's earlier hostility to Darwin's theory would be forthcoming). The same year, a short, glossy book entitled *Science, Evolution, and Creationism* put out by the National Academy of Sciences not only sketched the elements of evolutionary biology and the vast array of evidence that supports it, but also urged that "acceptance of the evidence for evolution can be [sic] compatible with religious faith," and noted that many religious leaders, including the General Assembly of the Presbyterian Church, the Central Conference of American Rabbis, and Pope John Paul II, agree. 197

But, while many religious people have come to terms with evolution, perhaps persuaded by the argument that science has nothing to say on spiritual matters, many have not; many feel, however inarticulately, that the idea that human beings are merely products of a long, impersonal process of random mutation and natural selection is strongly in tension with their conception of a personal God who created them in His image and cares about what they believe and how they behave. The same year the NAS book appeared, teachers at a conference in Atlanta reported that "[s]ome students burst into tears when a high school biology teacher told them they'd be studying evolution, and some repeatedly screamed 'no' when the teacher began the class." 198 And while this paper was in press, the Tennessee legislature passed a bill that would allow teachers to question "the scientific strengths and scientific weaknesses" of theories "including, but not limited to, biological evolution, the chemical origins of life, global warming, and human cloning." Intelligent Design "Theory" and the like will surely continue to have an appeal.

Moreover, because of the clear evidence of the underlying creationist agenda, *Kitzmiller* was a relatively easy case<sup>200</sup>—which was why the

requires separation of church and state is a "myth." *Id.* at 100; DAVID BARTON, THE MYTH OF SEPARATION (Wall Builder Press 3d. ed., 1992).

<sup>196.</sup> Philip Pullella, Evolution Fine but No Apology to Darwin, REUTERS (Sept. 16, 2008), available at http://www.reuters.com/article/2008/09/16/us-vatican-evolution-idUSLG62672220080916.

<sup>197.</sup> See NAT'L ACADEMY OF SCIENCES, supra note 160, at 12-13.

<sup>198.</sup> Laura Diamond, Teachers Say Covering Evolution Can be a Trial, ATLANTA JOURNAL-CONST., Oct. 27, 2008, at 1B.

<sup>199.</sup> See Cameron McWhirter, Tennessee Is Lab For National Clash Over Science Class, WALL St. J., Apr. 6, 2012, At A3.

<sup>200.</sup> See e.g., Johnny Rex Buckles, The Constitutionality of the Monkey Wrench: Exploring the Case for Intelligent Design, 59 OKLA. L. REV. 527 (2006) (arguing, inter alia, that courts should not treat IDT as inherently a religious idea).

Discovery Institute, which favors a legally-safer "teach the controversy" approach, <sup>201</sup> tried to distance itself from the Dover School Board; <sup>202</sup> and the ruling in *Selman* has already prompted legal scholars to wonder whether, though *this* one failed, a "facially neutral" evolution disclaimer might pass constitutional muster. <sup>203</sup> Nor, I might add, is there any scouting the awkward fact that, unless the theory of evolution really *can* be reconciled with belief in a caring, creator God, to teach evolution really *is* to favor non-religion over religion.

This has been, not an argument, but a narrative—a narrative to which the most appropriate closing words are (not, "The End," but) "To Be Continued." Still, you are entitled to ask, "So what? What are the morals to be drawn from this story?" That's a tough question—tougher, I think, than it at first appears. Yes, the Dover School Board's disclaimer statement was thoroughly objectionable, both from an educational and from a legal point of view: educationally, because, if we are not to compromise scientific education, what is taught in science classes should be the best-warranted science available; legally, because the Dover School Board's purpose was clearly to introduce religious ideas under cover of science, and this would, moreover, have been the effect of its disclaimer. Still, at the same time we need to keep clearly in mind that their religious convictions (even religious convictions we find weird or nutty or just plain dumb), really matter to people; and that the purpose of the Religion Clauses is precisely to ensure at once that people's freedom to believe is respected, and that religious strife is avoided. I find myself returning to Justice Clark's observations in Schempp; and wondering whether, if our schools could a better job of introducing students to the history of religion and its place in culture—and in the process, of explaining that, and why, there is disagreement even about whether the theory of evolution really poses any threat to religious belief—this would help us move a little closer to that highly desirable goal. Sadly, however, in the present often-dismal state of secondary education, this is a very tall order indeed.

<sup>201.</sup> David K. DeWolf, et al., *Teaching the Origins Controversy: Science, or Religion, or Speech?*, 2000 UTAH L. REV. 39 (2000). Stephen Meyer, one of the authors of the above-mentioned article, is Director of the Center for Renewal of Science and Culture at the Discovery Institute.

<sup>202.</sup> Several potential expert witnesses associated with the Institute, including William Dembski, dropped out of the trial when the Thomas More Center refused to allow them to bring their own attorneys along. See HUMES, supra note 162, at 241-42. After the trial, the Institute denounced the ruling, and Judge Jones. See id. at 143.

<sup>203.</sup> See e.g., Louis J. Virelli, Making Lemonade, 60 U. MIAMI L. REV. 423, 428 (2006).