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CREATIONISM AND INTELLIGENT DESIGN

BRIAN MACDONALD[†]

The debate over how to address the origins of life in American schools has been ongoing for almost a century. Proponents of creationism and intelligent design have used several different strategies in order to make sure their views are taught, and each time they have been struck down by the Supreme Court. This paper will analyze the three distinct forms the debate has taken, from attempts to ban outright the teaching of evolution, to the teaching of some form of creation-science alongside evolution, to attempts to “disclaim” evolution as it is taught. In its decisions, the U.S. Supreme Court has used different tests to decide whether or not the actions of creationist school boards and teachers violates the Establishment Clause. The Lemon Test and the Endorsement Test are analyzed in this paper, and any analysis of religious “purpose” is soundly rejected in favour of a thorough analysis of religious “effects” as the best method of determining whether a constitutional violation has occurred.

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I. INTRODUCTION: DOVER, PENNSYLVANIA

William Buckingham and Alan Bonsell were both elected to the Dover Area School District Board of Directors in Dover, Pennsylvania, in March of 2001. In January of 2002, the Board of Directors had a retreat to discuss their agenda, and Bonsell listed “creationism” as his primary concern. The following year, at a second retreat, Bonsell insisted that “creationism and evolution” be given equal treatment in biology classes.¹ In 2004, Buckingham refused to approve a biology textbook, stating that “it is inexcusable to have a book that says man descended from apes with nothing to counter-balance it.”² Bonsell and Buckingham were informed by counsel that the counterbalancing approach was unconstitutional, so they chose a different but increasingly common route. All grade nine school students were read a disclaimer before being taught about evolution. An excerpt of this disclaimer reads:

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.³ The disclaimer goes on to refer students to a book called *Of Pandas and People*, a book that calls itself a scientific text on the origins of life but is essentially a creationist text,⁴ though that is by no means a non-controversial statement.⁵ This disclaimer and the ensuing 139 page

1 Peter Irons, “Disaster in Dover: The Trials (And Tribulations) of Intelligent Design” (2007) 68 Mont. L. Rev. 59 at 73 [Irons].

2 *Ibid.* at 73.

3 *Kitzmiller v. Dover Area School District*, 400 F. Supp.2d 707 (M.D. Pa. 2005) at 708 [Kitzmiller].

4 Irons, *supra* note 1 at 77.

5 David K. DeWolf, John G. West & Casey Luskin, “Intelligent Design Will Survive *Kitzmiller v. Dover*” (2007) 68 Mont L. Rev. 7 at 23 [De Wolf].

decision of Judge Jones in *Kitzmiller v. Dover Area School District*⁶ are the latest flashpoints in the seemingly continuous debate surrounding what should be taught to children in the United States about the origins of life.

Understanding the debate requires understanding the positions of the parties and the constitutional backdrop. The parties can be divided (again, controversially) into two distinct factions. The first can be described as advocates of evolution and an origin of life that is based on naturalistic and non-supernatural causes. Richard Dawkins wrote in one of his scientific works that “today the theory of evolution is about as much open to doubt as the theory that the earth goes around the sun.”⁷ Time magazine agrees, noting that “Darwin’s venerable theory is widely regarded as one of the best supported ideas in science, the only explanation for the diversity of life on Earth, grounded in decades of study and objective evidence.”⁸ Evolutionary scientist Ernst Mayr provides a succinct and accurate definition of the theory:

‘evolution is change in the adaptation and in the diversity of populations of organisms.’ He notes that evolution has a dual nature, a ‘vertical’ phenomenon of adaptive change...and a ‘horizontal’ phenomenon of populations, incipient species, and new species.⁹

Technical though this definition is, it is a simplification of the dominant scientific theory about the origins of life on earth.

The second faction can be broadly labeled “creationist,” but advocates of “intelligent design” who found themselves embroiled in legal proceedings in Dover would resent the implication that their views are creationist (though they would have trouble explaining how the term “creationism” was simply replaced approximately 150 times with the expression

6 *Kitzmiller*; *supra* note 3.

7 Richard Dawkins, *The Selfish Gene* (London: Oxford University Press, 1989) at 1.

8 Claudia Wallis, “The Evolution Wars” (2005) *Time Magazine* 166:7 (15 August 2005) 7 at 27 [*Time*].

9 Michael Shermer, *Why Darwin Matters* (New York: Owl Books, 2006) at 6.

“intelligent design” in early drafts of an intelligent design textbook¹⁰), and in the interest of fairness these two concepts will be defined separately. Creationism, or “creation-science” as it became dubbed in the 1980s, is based on the view that “modern science has revealed a vast web of evidence which supports the biblical record of creation.”¹¹ This evidence includes “gaps in the fossil record,” arguments based on irreducible complexity and a rejection of the inheritability of DNA.¹² Creation-scientists believe that these gaps are evidence of the biblical account of creation.

Intelligent design cannot be reasonably thought to be anything other than a rebranding of creationism, with several concessions made to escape constitutional scrutiny. The widely cited “Wedge Document” is the mission statement of a leading intelligent design think tank called the Discovery Institute, and it states that the organization:

seek[s] nothing less than the overthrow of materialism and its cultural legacies. Bringing together leading scholars from the natural sciences and those from the humanities and social sciences, the Center [for the Renewal of Science and Culture, a part of the Discovery Institute] explores how new developments in biology, physics and cognitive science raise serious doubts about scientific materialism and have re-opened the case of a broadly theistic understanding of nature.¹³ (emphasis added)

Intelligent design purports to be a scientific theory based on the claim that “there are ‘tell-tale features of living systems and the universe that are best explained by an intelligent cause.’”¹⁴ The scientific proofs for this theory are based on the “irreducible complexity” of some aspects of living organisms¹⁵

10 *Kitzmiller*, *supra* note 3 at 721.

11 Creationism vs. Evolution: The Basics Explained, online: The Parent Company <<http://www.parentcompany.com/csrc/basics.htm>>.

12 *Ibid.*

13 The Wedge Document, online: The Discovery Institute <<http://www.antievolution.org/features/wedge.html>> [*Wedge*].

14 DeWolf, *supra* note 5 at 25.

15 *Ibid.* at 26.

and mathematical probabilities.¹⁶ They infer from these a “designer,” although they perhaps doth protest too much that this “designer” need not be supernatural.¹⁷

A final definitional note: the categories described above are not air-tight. There are no doubt scientists and firm supporters of the evolutionary theory who believe in a supernatural deity, just as “faced with the overwhelming evidence of evolved life, many modern creationists... willingly concede that at least some evolution occurs.”¹⁸ Throughout this paper there will be reference to “two sides” of the debate. This is simply a shorthand reference to those who believe only evolution should be taught in science class and those who believe evolution should be combined with, replaced by, or disclaimed by some religious, theistic or supernatural theory. It does not imply that every party on each “side” subscribes fully to the beliefs described above; it is simply a reference to their legal position.

Finally, the constitutional backdrop of this debate is the First Amendment of the United States Constitution, specifically, the first sentence of the first amendment, known as the Establishment Clause: “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.”¹⁹ This clause refers to Congress, but under the Fourteenth Amendment applies to laws made by states and statutory bodies (such as school boards) as well.

With the definitions, however controversial, laid out, this paper will discuss this debate in the context of the legal battles fought between the two camps. The first section will outline the legal history, beginning in the 1920s. The second section will analyze several issues that have arisen

16 Kristi L. Bowman, “Seeing Government Purpose Through the Objective Observer’s Eyes: The Evolution-Intelligent Design Debates” (2006) 29 Harv J. L. & Pub. Pol’y 417 at 417 [Bowman].

17 DeWolf, *supra* note 5 at 28.

18 Anne Marie Lofaso, “Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End Run around the Constitution” (2006) 4 Pierce L. Rev. 219 at 243 [Lofaso].

19 U.S. Const. amend. I.

with respect to the creationism debate, including issues around legislative purpose and scientific legitimacy. The final section will address the future of the creationism debate in light of the *Kitzmiller v. Dover Area School District* decision in Dover. Ultimately, the paper will demonstrate that while the courts' analyses of legislative purpose are flawed, creationism and intelligent design still must demonstrate scientific legitimacy if they are to survive constitutional challenges.

II. HISTORY

The history of the debate about teaching evolution can be divided into three distinct phases. The first, from 1925-1968, was the period where several states had anti-evolution statutes. The second period, which ran from 1968-1987, saw several states attempt to balance the teaching of evolution with requirements that some form of creationism be taught alongside it. The third, from 1988-present, saw attempts to disclaim the teaching of evolution, as well as the development of the intelligent design movement.

A. 1925-1968: ANTI-EVOLUTIONARY PHASE

On March 23, 1925, the governor of Tennessee signed into law a bill banning the teaching of evolution in Tennessee.²⁰ He did so despite the protests of “liberal clergy and scientists from Tennessee and across America”²¹ in order to reinvigorate “old-fashioned faith and belief in the Bible.”²² Shortly after that, the American Civil Liberties Union began searching for a teacher to use as a test case for the new legislation. They

20 Edward J. Larson, *Trial and Error: The American Controversy over Creation and Evolution* (New York: Oxford University Press, 1985) at 57 [*Trial and Error*].

21 *Ibid.*

22 *Ibid.*

found John Scopes, a Dayton, Tennessee biology teacher using a textbook that “prominently featured evolution.”²³ Scopes was charged under the law and William Jennings Bryan, the former presidential candidate and attorney, was named special prosecutor. He promised “a battle royal between the Christian people of Tennessee and the so-called scientists.”²⁴ Clarence Darrow, one of the most prominent defence attorneys in the United States at the time, took the case on behalf of the defendant.

In a series of events made legendary by the play and film *Inherit the Wind*, Darrow actually called Bryan to the stand as a self-proclaimed expert on the Bible. This is despite the fact that there were no expert witnesses allowed on the evolutionary side.²⁵ Darrow examined Bryan on such topics as “how Joshua lengthened the day by making the sun (rather than the Earth) stand still” and “how the snake that tempted Eve moved before God made it crawl on its belly,”²⁶ demonstrating some of the scientific inconsistencies in the biblical account of creation. It was all for naught, however, as Scopes was convicted and the law upheld. It was further upheld at appeal, although Scopes was acquitted on a technicality. The result of this acquittal was that there could be no appeal to the Supreme Court, and the law remained on the books in Tennessee.²⁷

The aftermath of the Scopes trial produced a flurry of activity: “Dozens of evangelical leaders rushed to pick up the fallen mantle, loosing a frenzy of uncoordinated and often localized legal activity against evolution.”²⁸ At the same time, 18 anti-evolutionary statutes were introduced in 15 states. Only Mississippi and Arkansas actually passed these acts, and in Arkansas it was the result of a public initiative.²⁹ From 1925 until 1967, it was illegal to teach evolution in those states, although the law was rarely enforced. As well, a number of state and local boards took initiative

23 *Ibid.* at 61.

24 *Ibid.*

25 *Ibid.* at 68.

26 *Ibid.* at 69.

27 *Ibid.* at 71.

28 *Ibid.* at 75.

29 *Ibid.* at 81.

themselves and made attempts to ban evolutionary teaching.³⁰

In 1968 the Supreme Court released its decision in *Epperson v. Arkansas*.³¹ Ms. Epperson was an Arkansas public school teacher seeking a declaration that the Arkansas anti-evolution statute was unconstitutional under the Establishment Clause. The court traced the origins and purpose of the law, and the question was decided based on the purpose and primary effects of the legislation in question. It found:

There can be no doubt that Arkansas has sought to prevent its teachers from discussing the theory of evolution because it is contrary to the belief of some that the Book of Genesis must be the exclusive source of doctrine as to the origin of man...its antecedent, Tennessee's "monkey law" [discussed in the Scopes case] candidly stated its purpose: to make it unlawful 'to teach any theory that denies the story of the Divine Creation of man as taught in the Bible.'³²

The decision is brief but the effect was profound: it was no longer legal to ban the teaching of evolution in American classrooms. Equally interesting is the dissent of Justice Black, who would have struck the law for vagueness as opposed to violating the Establishment Clause. He introduces a theme that would play a prominent role in the legal reasoning of creationists: "whether this Court's decision forbidding a State to exclude the subject of evolution from its schools infringes the religious freedom of those who consider evolution an anti-religious doctrine."³³ This idea of evolution as anti-religious and therefore equally abhorrent to the Establishment Clause would arise throughout the jurisprudence on the subject.

30 *Ibid* at 75.

31 *Epperson v. Arkansas*, 393 U.S. 97 (1968) [*Epperson*].

32 *Ibid.* at 272.

33 *Ibid.* at 275.

B. 1968-1987: THE BALANCING PHASE

The overturning of the ban led to a new strategy on the part of creationists – where evolution is taught, some form of creationism must be as well. This new phase began in 1973 in Tennessee, with the introduction of a bill requiring equal space in biology textbooks be given to creationism.³⁴ This was the new approach that was later mirrored in Texas, Arkansas, Louisiana, and several other states. However, this approach was struck down when challenged. As early as 1975 the Tennessee law was challenged in *Daniel v. Waters*³⁵ where *Epperson* is quoted extensively and the court notes that:

The result of this legislation is a clearly defined preferential position for the Biblical version of creation as opposed to any account of the development of man based on scientific research and reasoning. For a state to seek to enforce such a preference by law is to seek to accomplish the very establishment of religion which the First Amendment to the Constitution of the United States squarely forbids.³⁶

This did not deter many supporters of the balanced approach, many of whom “interpreted the blanket *Daniel* condemnation as merely identifying a couple of technical problems with the law.”³⁷ The *Daniel* decision is also notable in that the court applied the new test for an Establishment violation arising from *Lemon v. Kurtzman* (hereafter “the *Lemon* Test”) to the issue of creationism being taught. This test will be discussed in detail below.

The *Daniel* decision was not a Supreme Court decision, but it did guide the actions of courts in other jurisdictions. In 1982, Judge Overton of the U.S. District Court in Arkansas released his decision in *McLean v. Arkansas Board of Education*³⁸. This case dealt with a similar statute as

34 *Trial and Error*, *supra* note 20 at 135.

35 *Daniel v. Waters*, 515 F.2d 485 (1975) [*Daniel*].

36 *Ibid.* at 489.

37 *Trial and Error*, *supra* note 20 at 139.

38 *McLean v. Arkansas Board of Education*, 529 F. Supp. 1255 (1982) [*McLean*].

in *Daniel*, only by this point creationism had been re-branded “creation-science.” The decision was notable for several reasons. For one, it traces the origins of the “balanced approach” laws from their origins in the Christian fundamentalist movement. The Act in question was the result of the actions of one fervent individual whose religious motivations are well documented.

The most important part of McLean is the direct challenge it issues to the scientific credibility of creationist theory. The requirement of teaching creation-science alongside evolution “lacks legitimate educational value because ‘creation-science’ as defined in that section is simply not science.”³⁹ Judge Overton creates a list of the essential characteristics of science, which are

- (1) It is guided by natural law;
- (2) It has to be explanatory by reference to natural law;
- (3) It is testable against the empirical world;
- (4) Its conclusions are tentative, i.e. are not necessarily the final word, and;
- (5) It is falsifiable.⁴⁰

He then applies these criteria to the creation-science advocated by the state, noting that it “not only fails to follow the canons of dealing with scientific theory, it also fails to fit the more general descriptions of ‘what scientists think’ or ‘what scientists do.’”⁴¹ Judge Overton found the balanced treatment unconstitutional because of its religious purpose, as in *Daniel*, but he also continued his analysis into the effects of the legislation, the second prong of the *Lemon* Test.⁴²

The final word on the balancing approach of creation advocates came from the United States Supreme Court in a 1987 case called *Edwards v. Aguillard*,⁴³ which challenged this approach in a Louisiana context. The

39 *Ibid.* at 1267.

40 *Ibid.* at 1267.

41 *Ibid.* at 1268.

42 *Trial and Error*, *supra* note 20 at 161.

43 *Edwards v. Aguillard*, 107 S.Ct. 2573 (1987) [*Edwards*].

court ruled against this approach based, once again, on the purpose prong of the *Lemon* Test. The court found that the “preeminent purpose of the Louisiana Legislature was clearly to advance the religious viewpoint that a supernatural being created humankind.”⁴⁴ The dissent by Justice Scalia and Chief Justice Rehnquist rejected this prong of the test altogether, saying that a statute’s effects are the only aspect worth examining. Justice O’Connor concurred along with Justice Powell, advocating a use of the Endorsement Test instead of the *Lemon* Test.

Regardless of the test used, *Edwards* was the final word on the teaching of creationism in American schools, but the debate was not over. Creationists once again adjusted their strategy and began championing “intelligent design” instead of biblical creation as the alternative to evolution that should be taught in schools.

C. 1988-PRESENT: THE INTELLIGENT DESIGN PHASE

Many of the intellectual origins of the intelligent design movement can be traced to some of Justice Scalia’s comments in the *Edwards* dissent. He wrote that Christian students “are quite entitled, as a secular matter, to have whatever scientific evidence there may be against evolution presented in their schools.”⁴⁵ As *Time* magazine notes, “That line of argument – an emphasis on weaknesses and gaps in evolution – is at the heart of the intelligent design movement, which has as its motto “Teach the Controversy.”⁴⁶ The intelligent design movement, spearheaded by the Discovery Institute mentioned above, created a legal strategy for debunking evolution and replacing it with “the theistic understanding that nature and human beings are created by God”⁴⁷ and doing it through “scientific” means.

The current question for those following this debate is whether or not the decision in *Kitzmiller* in Dover, Pennsylvania was as serious a setback

44 *Ibid.* at 2581.

45 *Ibid.* at 2604.

46 *Time*, *supra* note 8.

47 *Wedge*, *supra* note 13.

for the intelligent design movement as it appears to be. This case will be discussed in detail below.

Ironically, the evidence indicates that the formal elements of the intelligent design movement attempted to distance themselves from the individuals in Dover, feeling that because of comments like William Buckingham's "two thousand years ago, someone died on a cross. Can't someone take a stand for him?"⁴⁸ might go against them during an analysis of whether or not there was a religious purpose.⁴⁹

Indeed, the religiosity of the Board members in Dover played a large role in Judge Jones' decision. He noted that in Board meetings "several Dover School Board members advocated for the [intelligent design disclaimer] in expressly religious terms...[and] at least two Board members...defended the proposed curriculum change in the media in expressly religious terms."⁵⁰ The intelligent design disclaimer was found unconstitutional based on essentially all aspects of the *Lemon* Test as well as the Endorsement Test.

III. ISSUES IN ESTABLISHMENT CLAUSE JURISPRUDENCE

A. THE *LEMON* TEST

Despite the dominance of the *Lemon* Test in Establishment Clause jurisprudence for some time, several aspects of it remain controversial and difficult to apply in practice. These issues will be discussed below in the context of the creationism debate.

48 *Kitzmiller*, *supra* note 3 at 752.

49 DeWolf, *supra* note 5.

50 *Kitzmiller*, *supra* note 3 at 730.

*Lemon v. Kurtzman*⁵¹ was decided in 1971, and is a case about government funding of non-public religious schools. Chief Justice Burger wrote that a piece of legislation challenged under the Establishment Clause must pass three tests: “First, the statute must have a secular legislative purpose; second, its principal or primary effect must be one that neither advances nor inhibits religion ... finally, the statute must not foster ‘an excessive government entanglement with religion.’”⁵² Essentially, religious purpose, religious effect (that establishes or endorses a religion), or religious entanglement will invalidate a statute.

Judge Overton provides a good discussion of the values underlying the Establishment Clause in *McLean*. He notes that it is meant to protect two values central to the Constitution, namely “voluntarism and pluralism.” He goes on to state that it is in the context of the public school system that “these values must be guarded most vigilantly.”⁵³ He traces the evolution of Establishment Clause jurisprudence and its continuing focus on keeping public schools free from “irreconcilable pressures by religious groups, or religion...however subtly exercised.”⁵⁴ Even before the *Lemon* Test was articulated, the purpose of a particular statute was a central concern of judges. In 1963, writing in *Abington School District v. Schempp* (quoted in *McLean*), Justice Clark stated that “to withstand the structures of the Establishment Clause there must be a secular legislative purpose and a primary effect that neither advances nor inhibits religion.”⁵⁵

While this approach to the Establishment Clause was not explicitly set out until *Lemon*, similar reasoning can be seen in earlier cases. With respect to creationism being taught in the classroom the test is the same. In *Epperson*, the case mentioned above that struck down an anti-evolution statute in Arkansas based on the religious purposes of those who advocated for it, a pre-*Lemon* court wrote

51 *Lemon v Kurtzman*, 403 U.S. 602 (1971) [*Lemon*].

52 *Ibid.* at 612-613.

53 *McLean*, *supra* note 38 at 1258.

54 Quoting *McCollum v. Board of Education*, 333 U.S. 203, 216-217 (1948).

55 *McLean*, *supra* note 38 at 1258.

There can be no doubt that Arkansas has sought to prevent its teachers from discussing the theory of evolution because it is contrary to the belief of some that the Book of Genesis must be the exclusive source of doctrine as to the origin of man. No suggestion has been made that Arkansas' law may be justified by considerations of state policy other than the religious views of some of its citizens.⁵⁶

However, despite the persistence of the *Lemon* Test as a guiding principle in Establishment Clause interpretation, things may be changing. The law is unsettled. As of this writing there is no consensus as to how it will develop in the future. Indeed, one writer notes that "the Court and commentators alike acknowledge that while *Lemon* no longer has the full support of a majority of the Court, *Lemon's* ideological successor has yet to be anointed."⁵⁷ Despite the suspected decline in the importance of *Lemon*, its application to the issues surrounding the teaching of creationism has been controversial.

1. Religious Purpose

Epperson v. Arkansas, the case in which anti-evolution statutes were ruled unconstitutional, was the first Establishment Clause case to rely on the purpose of the legislation in overruling it.⁵⁸ In that case, the Court could have easily ruled the statute void for vagueness (as the three separate concurring opinions state),⁵⁹ but Justice Fortas chose instead to rely on the statute's invalid purpose to declare it null and void. What he does not specify and what will be a major issue in determining future creationist cases is whose purpose is being examined. This has repeatedly posed problems in the application of the purpose analysis, and begs the question of whether or not purpose is a relevant consideration in a law's constitutionality.

⁵⁶ *Epperson*, *supra* note 31 at 272.

⁵⁷ Bowman, *supra* note 16 at 444.

⁵⁸ *Ibid.* at 444.

⁵⁹ *Epperson*, *supra* note 31.

In *Epperson*, the invalid purpose is attributed simply to “Arkansas.” Justice Fortas does not specify whether it is individual legislators, the state government, school boards, *et cetera*, whose purposes are being examined. No guidance is provided to future courts as to how to interpret purpose. While the *Lemon* Test incorporates it into Establishment Clause jurisdiction, it is not made clear whose purpose is to be examined. The use of the state name seems to indicate that some sort of governmental purpose will be looked at.

This is not the route taken by the court in *McLean*, however. In *McLean*, the main actor whose purpose is examined is a gentleman named Paul Ellwanger, “a respiratory therapist who is trained in neither law nor science,” who formed an organization called “Citizens for Fairness in Education.”⁶⁰ The court examines in detail Mr. Ellwanger’s personal beliefs and correspondence. It cites letters to pastors and state senators, as well as private citizens.⁶¹ Mr. Ellwanger was one of the main driving forces behind the legislation being challenged, but he was a private citizen rallying support for a cause he believes in. In one letter to Senator Bill Keith (a Louisiana state senator and not at all involved in the passing of the Arkansas legislation being challenged), Mr. Ellwanger writes

I view this whole battle as one between God and anti-God forces, though I know there are a large number of evolutionists who believe in God...it behooves Satan to do all he can to thwart our efforts and confuse the issue at every turn...If you have a clear choice between having grassroots leaders of this statewide bill promotion effort to be ministerial or non-ministerial, be sure to opt for the non-ministerial. It does the bill effort no good to have ministers out there in the public forum.⁶²

While the correspondence clearly demonstrates that there are religious motivations behind his push for balancing statutes and purpose is central

60 *McLean*, *supra* note 38 at 1261.

61 *Ibid.* at 1261-1263.

62 *Ibid.* at 1261.

to the analysis, it is unclear from the purpose-driven decision in *Epperson* that it is the purposes of private individuals and organizations that is being questioned. There are no requirements, legal or otherwise, that advocates of government action cannot have religious purposes. The actual sponsor of the bill, State Senator James L. Holsted, receives only two paragraphs (compared to eleven about Mr. Ellwanger) in the *McLean* judgment, where he is described as a “‘born again’ Christian fundamentalist.”⁶³ No doubt Mr. Ellwanger’s correspondence with him is relevant, but it is unclear how the purposes of one private individual, however supportive he may be, are relevant to the constitutional analysis of a piece of legislation.

While there is certainly a nexus of interest between the citizens who lobby for particular legislative action and legislators who implement it, it should not be the focus of the analysis. *McLean*, while not a Supreme Court decision, is nevertheless important in that statutory purpose used to invalidate an anti-evolution statute, yet, it is problematic because the wrong party’s purpose was analyzed.

Edwards is the Supreme Court’s final word on the requirement that creationism be taught alongside evolution, and the Supreme Court provides some guidance as to what is meant by “purpose.”

A governmental intention to promote religion is clear when the State enacts a law to serve a religious purpose. This intention may be evidenced by promotion of religion in general...or by advancement of a particular religious belief.⁶⁴

In *Edwards*, the law in question had as its stated purpose “academic freedom,”⁶⁵ but the Supreme Court rightly looks past this. It points out that requiring teachers to teach both evolution and creation or neither is, in fact, the opposite of academic freedom. While the statute can claim

⁶³ *Ibid.* at 44.

⁶⁴ *Edwards*, *supra* note 43 at 2578.

⁶⁵ *Ibid.* at 2579.

academic freedom as its goal, it “does not further this purpose.”⁶⁶ The main concept coming out of the court’s “purpose” analysis in *Edwards* is the oft-quoted phrase, “While the Court is normally deferential to a State’s articulation of a secular purpose, it is required that the statement of such a purpose...be sincere and not a sham.”⁶⁷ Here, it examines the legislative history, particularly that involving Senator Bill Keith (the same Bill Keith who was corresponding with *McLean*’s Mr. Ellwanger) and determines that the goal of the act was not, in fact, the promotion of academic freedom. It quotes Senator Keith as saying he does not believe in evolution because it promotes views “contrary to his own religious beliefs” and consonant with what he refers to as “atheism [sic.]”⁶⁸

This approach seems more consistent with the idea of legislative purpose than the one used in *McLean*. The only actors analyzed are the state legislators, and the purpose of the Act in question is measured not against the mission statement of a lobbying organization, but against the stated goals of the Act in question. In particular, the phrase “not a sham” gives lower courts an opportunity to look behind the stated purpose, although the court makes it clear that some deference should be given to the stated purpose. What is not clear is how much deference. Is the discussion of citizen lobbyists appropriate, as was done in *McLean*? Certainly the analysis in *Edwards* does go beyond the actual purposes of government actors, including

the legislative history and historical context of the Act, the specific sequence of events leading to the passage of the Act, the State Board’s report on a survey of school superintendents, and the correspondence between the Act’s legislative sponsor and its key witnesses.⁶⁹

The Supreme Court seems content in *Edwards* with limiting the analysis to governmental purposes but lowering the amount of deference given to specific claims. This is certainly a better approach than the one taken in

66 *Ibid.* at 2579.

67 *Ibid.* at 2579.

68 *Ibid.* at 2582.

69 *Ibid.* at 2583.

McLean, where a law can be invalidated based on the purposes of the non-governmental individuals and groups who support it.

An approach similar to the one outlined in *Edwards* is used by Judge Jones in *Kitzmiller*. There he notes that, “the purpose inquiry involves consideration of the ID Policy’s language, ‘enlightened by its context and contemporaneous legislative history,’ including, in this case, the broader context of historical and ongoing religiously driven attempts to advance creationism while denigrating evolution.”⁷⁰ The facts of that case make the purpose analysis easy: the school board members made numerous statements about their religious views being reflected in the school curriculum. The simplicity of the analysis, while easy in the sense that the school board members had made numerous statements, still does betray confusion around whose purpose should be analyzed. Judge Jones does place some importance on the position of “the intelligent design movement” in the form of the Discovery Institute, even though it claims to have washed its hands of the Dover School Board.⁷¹

While the move from the all-encompassing purpose analysis in *McLean* to a limited focus on the purpose of government actors in *Edwards* and *Kitzmiller* is a positive development, there are still serious flaws with a purpose driven approach to Establishment Clause issues.

The first comes from the dissent of Chief Justice Rehnquist and Justice Scalia in *Edwards*, where they try to distinguish “purpose” in a legal sense from “motivation.” They note that

Notwithstanding the majority’s implication to the contrary...we do not presume that a law’s purpose is to advance religion merely because it was supported strongly by organized religions or by adherents of particular faiths...To do so would deprive religious men and women of their right to participate in the political

⁷⁰ *Kitzmiller*, *supra* note 3 at 746.

⁷¹ DeWolf, *supra* note 5.

process. Today's religious activism may give us the [Act in question], but yesterday's resulted in the abolition of slavery and tomorrow's may bring relief for famine victims.⁷²

Their point is valid and similar to the one made above in the discussion of *McLean*. Overtly religious statements by legislators and state actors will normally be caught in the purpose analysis, but the dissent in *Edwards* rightly points out that religious motivations of individual citizens should not play a role. It effectively separates the religious purpose of a piece of legislation from the religious motivations of private individuals who support it. However, given the fact that it was Justices Scalia and Rehnquist who were making this argument in *Edwards*, it is unclear whether or not they would agree with the statement above. They were likely trying to remove even the motivations of legislators from the analysis. Indeed, they later note that "determining the subjective intent of legislators is a perilous enterprise."⁷³

Attempts to mitigate the peril of this "enterprise" have begun in recent years. In some cases, the court has stopped looking for the actual purpose of the actors and started looking at what the "reasonable observer" would construe this purpose to be. This approach has yet to be applied to any case dealing with the teaching of creationism, but it has been applied to other Establishment Clause cases. But, as one writer notes,

Given the constantly changing nature of Establishment Clause doctrine, it is unclear whether this newly expanded role of the reasonable observer is a definitive change or merely a temporary shift.⁷⁴

Whether a permanent development or a temporary shift, this is obviously a problematic method of analysis. First, it is not clear why the reasonable observer's impressions of a law's purpose are more important than the actual purpose. Second, a well-veiled purpose could give rise to the

⁷² *Edwards*, *supra* note 43 at 2594.

⁷³ *Ibid.* at 2606.

⁷⁴ Bowman, *supra* note 16 at 425.

argument that the reasonable observer might not actually appreciate the true purpose, forcing the court to impose its own judgment anyway. Finally, a reasonable observer of a law's purpose should be expected to understand a great deal more about contextual factors than a reasonable observer of the text alone. These three problems are summed up well by Kristi Bowman, when she states, "Importing the reasonable observer into the government purpose analysis affects the analysis of both issues of law and issues of fact in peculiar ways, making the government observer ever more a fiction in the colloquial sense of the word."⁷⁵

Purpose, then, has been narrowed from a broad analysis of the social activist motivations behind a piece of legislation, as in *Epperson*, to an analysis of government actors' stated purpose, to an analysis of the reasonable observer. It is interesting that in general Establishment Clause jurisprudence, the purpose aspect of the Test is rarely relied upon. Conversely, in the context of teaching creationism, purpose is the aspect of the Test used most frequently.⁷⁶ Whether this speaks to the difficulty of analyzing the religious effects of creationist strategies or the often blatant disregard for the Establishment Clause shown by the sponsors of the creationist laws is unclear. What is clear is that purpose lacks clarity and should be phased out altogether as a point of analysis. It is overbroad and vague and attempts to augment it by importing a reasonable observer suffer drawbacks all their own. The flaws with the purpose analysis demonstrate that if legislation cannot be invalidated because of its effects, perhaps it should not be invalidated at all.

2. Effect and the Scientific Inquiry

The second part of the *Lemon* Test asks the effect of the impugned law. If its effect is primarily religious, the law cannot stand. If the effect is primarily secular and has a secondary religious effect, the law is valid. The Supreme Court has provided some guidance with respect to this prong of the Test. It notes in *Texas Monthly Inc v. Bullock* (quoted in *Kitzmiller*):

⁷⁵ *Ibid.* at 484.

⁷⁶ *Ibid.* at 444.

The core notion animating the requirement that...[an official act's] 'principal or primary effect...be one that neither advances nor inhibits religion,' is not only that government may not be overtly hostile to religion but also that it may not place its prestige, coercive authority, or resources behind a single religious faith or behind religious belief in general, compelling non-adherents to support the practices or proselytizing of favored religious organizations and conveying the message that those who do not contribute gladly are less than full members of the community.⁷⁷

The effect test is fairly straightforward, and the only confusion arising from it is in its relationship with the Endorsement Test. The Endorsement Test is treated as a separate test from the *Lemon* Test, although it is in many ways simply the effect analysis. This will be discussed below.

The effect prong is rarely used in the creationism jurisprudence for the simple reason, mentioned above, that most courts have usually managed to invalidate statutes based on their religious purpose. In *Edwards*, the statute is invalidated based on its purpose but the court does provide a very basic analysis of the effects. In its purpose analysis, it notes that one of the effects is "either the banishment of the theory of evolution from public school classrooms or the presentation of a religious viewpoint that rejects evolution in its entirety."⁷⁸

In the context of creationism in the classroom, one of the main points of contention can be drawn from the statement quoted above and logical deduction – if creationism and intelligent design are religious theories, then they will have religious effects. If they are not religious, then they will not have religious effects. Creationists are faced with a difficult position: they maintain that creationism and intelligent design are science, but that it is *ultra vires* the courts to question the veracity of this claim. *Kitzmiller*

⁷⁷ *Texas Monthly, Inc. v. Bullock*, 489 U.S. 1, 9 (1989), as quoted in *Kitzmiller*, *supra* note 3 at 133.

⁷⁸ *Edwards*, *supra* note 43 at 2584.

points out the ramifications of this logic and the reasons creationists are so loath to accept scientific scrutiny: “since [intelligent design] is not science, the conclusion is inescapable that the only real effect of the [intelligent design policy] is the advancement of religion.”⁷⁹ *McLean* makes a similar point, noting that “the conclusion that creation science has no scientific merit or educational value as science has legal significance in light of the Court’s previous conclusion that creation science has, as one major effect, the advancement of religion.”⁸⁰

As stated, proponents of creationism and intelligent design vehemently reject the characterization of their respective viewpoints as religious as opposed to scientific, while also arguing that it is not the role of the courts to decide what is and what is not science. Although most cases in the realm of creationism have relied upon a purpose analysis, the chaotic state and limited utility of the purpose analysis suggests a need to shift toward an effects-based approach. Indeed, the purpose prong of the *Lemon* Test has become so convoluted that it is arguably unfair to force government actors to do anything other than assert a purpose and defend its effects as secular. As in other areas of Establishment Clause jurisprudence, the effect prong of the *Lemon* Test should be the workhorse. In the context of science class, a secular effect requires scientific content. This section will examine first the propriety of the court making scientific determinations, followed by a discussion of creation-science and intelligent design’s claims to scientific legitimacy and the courts’ response.

A great deal has been written by both sides of the debate on whether it is the role of courts to adjudicate what is and is not science. *Kitzmiller* is the most recent decision, but as early as *McLean* the court was willing to decide what is and is not science. In a critique of the *Kitzmiller* decision, De Wolfe, West and Luskin of the Discovery Institute note:

All that was necessary to determine that an Establishment Clause violation had occurred was to find that the Dover school board members had predominantly religious

⁷⁹ *Kitzmiller*, *supra* note 3 at 764.

⁸⁰ *McLean*, *supra* note 38 at 1272.

motivations for enacting their [intelligent design policy]. Longstanding U.S. Supreme Court precedent suggests that in resolving constitutional issues, a narrow holding...is preferable to a broad holding (concerning the definition of science...or whether intelligent design is science).⁸¹

To bolster their point, the authors note that in previous decisions such as *Edwards* the court stopped short of an effect analysis and stayed out of the debate as to what is and is not science.⁸² On its face, the argument is valid. Gradual change is better than sudden change and is more likely to produce good law without creating general constitutional rules out of very specific circumstances. The critique above, however, is self-serving. Of course proponents of intelligent design want the bulk of the analysis done at the purpose stage. It is much easier to conceal the religious purpose of teaching intelligent design than to conceal the religious effect of teaching an unscientific theory in a science class.

That said, those who criticize the court's decision to analyze the science have little understanding of the effects prong of the *Lemon* Test. If a curriculum change is created by a school board and triggers a suit under the Establishment Clause and no religious purpose can be found, it is necessary to turn to religious effects. Whether or not a curriculum change has religious effects can only be discovered by examining the content of that curriculum and the context in which it is taught. Therefore, analyzing the effect of a requirement that children be read a disclaimer about intelligent design before learning about evolution in science class requires an analysis of intelligent design. Put in a different way, "teaching something other than science in the science classroom is suspect...in this context, it is essential to understand what constitutes science and the scientific method."⁸³ This intuitive point was either missed or ignored by those who criticized Judge Jones' choice to analyze the scientific merit of intelligent design in *Kitzmiller*.

81 DeWolf, *supra* note 5 at 6.

82 *Ibid.*

83 Lofaso, *supra* note 18 at 223.

Judge Jones also has legal precedent for his decision. While the effects prong has been largely (and problematically) unnecessary for adjudication of the creationism debate, it was used in *McLean*. In that case, the court actually laid out a five-part definition of what constitutes science before ruling that creation-science, despite its name, does not meet the definition.⁸⁴ Despite the protestations of the intelligent design movement, defining science is absolutely a necessary part of the effects analysis of the *Lemon Test* in this context. Creationists likely appreciate this necessity and are simply engaging in legal maneuvering. The argument that the court has no role in this discussion really is secondary to their argument that creationism and intelligent design are, in fact, scientific theories and belong alongside evolution in science classes.

Judge Jones found unequivocally that intelligent design “is not a new scientific argument, but is rather an old religious argument for the existence of God.”⁸⁵ This mirrors the findings of *McLean* that “creation science ‘is simply not science’ because it depends on ‘supernatural intervention,’ which cannot be explained by natural causes or be proven through empirical investigation, and is therefore neither testable nor falsifiable.”⁸⁶ It does not take a scientist (and indeed, this author is not one) to realize that “gaps” in evolutionary theory are not *prima facie* evidence of any other theory. They are simply gaps in the theory that cannot yet be explained by science. In other words, “the main strategy of creation propagandists is the negative one of seeking out gaps in scientific knowledge and claiming to fill them with ‘intelligent design’ by default.”⁸⁷ In *Kitzmiller*, one witness noted that “absence of evidence is not evidence of absence,”⁸⁸ and another noted that “just because scientists cannot explain every evolutionary detail does not undermine its validity as a scientific theory as no theory in science is fully understood.”⁸⁹

84 *McLean*, *supra* note 38 at 1267.

85 *Kitzmiller*, *supra* note 3 at 718.

86 *Ibid.* at 717.

87 Richard Dawkins, *The God Delusion* (Boston: Houghton Mifflin Co., 2006) at 122 [*God Delusion*].

88 *Kitzmiller*, *supra* note 3 at 738.

89 *Ibid.* at 738.

The centerpiece of intelligent design's scientific aspirations is the concept of "irreducible complexity," which is simply an example of the negative arguments described above. If there are no scientific explanations for the irreducible complexity of systems like the bacterial flagellum or blood clotting (although intelligent design advocates were likely disappointed when Judge Jones explained that there are), it is simply because they have not been discovered yet. One writer notes that "the speedy resort to a dramatic proclamation of irreducible complexity represents a failure of the imagination."⁹⁰

Despite the arguments presented above and the temptation to provide more, it is beyond the scope of this paper to wade into the many reasons intelligent design and creationism are not science. What is important to note is that the question is one that must be addressed by the courts when analyzing the effect of teaching creationism or intelligent design. The legal future of creationism in American classrooms depends on demonstrating that it is scientific and not religious. This is an uphill battle, to be sure.

The courts are correct to tackle this issue for one main reason – to determine whether or not the curriculum change has a religious effect, one must examine the content of that change. Whether or not a curriculum is scientific or religious is best analyzed through the lens of its effect. If it is demonstrably scientific and credible, and has some support within the scientific community then it should absolutely be a part of the curriculum, regardless of the motivations of those who placed it there. If a significant number of credible studies demonstrate that not coveting thy neighbour lowers the cancer rate, there is no doubt that there would be religious support for teaching that and it would undoubtedly have a secondary religious purpose, but the primary effect of legislation requiring teachers to include it in the curriculum would be to lower the cancer rate. Children should be taught credible, demonstrable, accepted science, regardless of the implications of that science. If that leads to a decline in "old-fashioned faith and belief in the Bible,"⁹¹ then that is an unfortunate secondary effect of teaching science.

90 *God Delusion*, *supra* note 87 at 128.

91 *Ibid.*

The purpose test is too flawed to be of significant assistance, despite the fact that it has been the workhorse of creationist jurisprudence. It is the effect aspect of the *Lemon* Test that has the potential to properly assess proposed curriculum changes. If creationists can demonstrate that teaching their version of history does not have the primary effect of advancing religion then they should be more than welcome to teach it.

B. THE ENDORSEMENT TEST

The Endorsement Test is an alternative to the *Lemon* Test, and the jurisprudential landscape is in such disarray that counsel tend to argue, and lower court judges apply, both tests.⁹² The Endorsement Test was created 1984 in *Lynch v. Donnelly*.⁹³ What is notable about the early iterations of the Endorsement Test is that its distinction from the *Lemon* Test is unclear. As Judge Jones notes in *Kitzmiller*, “it is now primarily a lens through which to view ‘effect,’ with purpose evidence being relevant to the inquiry derivatively.”⁹⁴ Considering its relation to the effect element of the *Lemon* Test, the same issues surrounding scientific debates apply. The Endorsement Test adds a second layer, however, in that its focus is not so much on the actual effect of the policy but the effect perceived by the ubiquitous reasonable observer.

In *Kitzmiller*, the “reasonable observer” (renamed the “objective observer”) was divided in two parts and the perspectives of both the students in the school and the adults in the community were analyzed.⁹⁵ This was necessary given some of the facts in *Kitzmiller*, including the communications between Board and the community at large, but of course suffers from the same drawback discussed above when the reasonable observer is imported in to the purpose analysis, namely, the importance of actual effect versus perceived effect, the ability of individuals to conceal effects, and the ever-growing body of knowledge that must be attributed to reasonable observers.⁹⁶

92 *Kitzmiller*, *supra* note 3 at 712.

93 *Lynch v. Donnelly*, 465 U.S. 668 (1984) [*Lynch*].

94 *Kitzmiller*, *supra* note 3 at 714.

95 *Ibid.* at 715-716.

96 *Ibid.*

Justice O'Connor's focus on the perceived effect does have the advantage of protecting the possible alienation of individuals who are outside whatever religion is being promoted in violation of the Establishment Clause. It does this by invalidating laws based on the effect they have on individuals, particularly individuals who might not share the beliefs of the majority. In *Lynch* she writes

Endorsement sends a message to nonadherents that they are outsiders, not full members of the political community, and an accompanying message to adherents that they are insiders, favored members of the political community.⁹⁷

The application of this to the teaching of creationism is obvious. Students who do not adhere to the story of creation found in the Book of Genesis would most certainly feel that they are outsiders. This effect is magnified when it is recalled that the individuals in question are children who are being taught biblical stories as science. It could be argued that bible literalists could feel alienated by the teaching of only evolution, but the salient difference is that one is science and the other is religion. The main focus of the Endorsement Test is those individuals alienated by the endorsement of religious ideas, not those alienated by secular ones. Science that affects religious beliefs is perfectly legal. Intelligent design does not fare much better under this test. As Judge Jones notes, since a reasonable objective observer would be familiar with the history of the intelligent design movement (recall the impressive array of knowledge possessed by Establishment Clause reasonable observers) and would know that it is essentially creationism in disguise,⁹⁸ the reasonable observer who did not believe in creationism would feel alienated.

The relationship of the Endorsement Test to the *Lemon* Test is uncertain. It seems to be an attempt to move the effect branch of the *Lemon* Test away from an analysis of the actual effect of government action and towards the objective observer's perception of these effects. This is superfluous. The

⁹⁷ *Lynch*, *supra* note 93 at 688.

⁹⁸ *Kitzmiller*, *supra* note 3 at 716.

alienation felt by individuals excluded from the endorsed religion will surely be one of an action's actual effects and will be caught by that prong of the *Lemon* Test. By limiting the scope of the analysis to perceived effects only, the Endorsement Test limits the efficacy of the inquiry. The court has compensated for this by endowing the objective observer with a great deal of knowledge and background information, but as has been noted, this makes the objective observer "ever more a fiction."⁹⁹

The purpose prong of the *Lemon* Test is over-inclusive, and attempts to change it have resulted in interpretations that are incorrect and overbroad. The Endorsement Test's focus on perceived instead of actual effects seems unnecessary. The proper test is simply the effect prong of the *Lemon* Test. Strangely, in all other Establishment Clause jurisprudence, a statute's actual effect is the most common way to invalidate it. It is only in the context of teaching creationism that the purpose aspect of the analysis has been used, and *Edwards* is "one of only five Supreme Court cases in which an impermissible government purpose invalidated the state statute at issue."¹⁰⁰ A statute's effect is the most important element of the analysis and if a government action cannot be invalidated based on its effect, perhaps it should not be invalidated at all.

IV. THE FUTURE OF THE DEBATE

Despite this author's firm belief that the effect aspect of the test is all that is necessary, no consensus has been reached on how to deal with Establishment Clause cases, particularly those dealing with the teaching of creationism. There is real need for clarity, as the debate surrounding what can and cannot be taught to American children is far from over. According to *Time* magazine, 55% of Americans think some form of creationism should be taught and 45% of that believes in 6-day creationism as

⁹⁹ *Ibid.*

¹⁰⁰ Bowman, *supra* note 16 at 462.

described in the Bible. The most troubling figure is that 54% of Americans do not think they are the product of evolution.¹⁰¹ Whether this represents a failure of science education or the success of religious fundamentalism is unknown. The *Kitzmiller* decision was a setback for the intelligent design movement and its desire to “disclaim” legitimate science with religious beliefs, but it was not a killing blow in the way that *Epperson* was for anti-evolution statutes or *Edwards* for balance requirements.

Indeed, there is a great deal of debate over whether *Kitzmiller* spelled the end of the intelligent design movement and the disclaimer approach to evolution. Legally, the debate is far from over. Despite its sweeping thoroughness, Judge Jones’ decision has no precedential value outside of the Middle District of Pennsylvania. The decision was not appealed because the Board of Directors being sued was replaced by the angry citizens of Dover in the ensuing school board elections. The decision stands as an excellent example of judicial reasoning, but unfortunately has no legal value beyond just that. The decision is just an example.

As for the intelligent design movement, while legally it may live to fight another day it is suffering from a credibility deficit that will be difficult to overcome, primarily due to the public perception of the individuals responsible for the situation in Dover. *Time’s* poll may have indicated that Americans are in favour of some sort of religion being taught in their schools, but the attitudes of the school board members who made it so in Dover certainly raised eyebrows. This is ironic, because the organized elements of this movement seem to have taken steps to distance themselves from the individuals in Dover, described by one writer as occurring when

An auto repairman appointed an OxyContin-addicted biblical literalist without a shred of knowledge to decide which books the kids should learn from, and a woman who had no curiosity about anything, even her own most deeply held beliefs, seconded the whole idea.¹⁰²

101 *Time*, *supra* note 8.

102 Matthew Chapman, “God or Gorilla” in Gina Kolata, ed., *The Best American Science Writing of 2007* (New York: Harper Perennial, 2007) 158 at 179 [Chapman].

A harsh analysis perhaps, but true. And it certainly demonstrates why the Discovery Institute attempted to distance itself from its test case, why future school boards might think twice before advocating any sort of religious curriculum change, and why Americans might be hesitant to let them. In winter of 2007, the Montana Law Review released a special issue devoted to the issues in *Kitzmiller*, including a lengthy treatise entitled, “Intelligent Design Will Survive Dover.” In it, the authors (who are affiliated with the Discovery Institute) spend a great deal of time trying to separate the intelligent design movement from the actions of the Dover school board.¹⁰³ Factually, the Discovery Institute seems to have distanced themselves from the individuals in Dover, but that does not change the fact that it was intelligent design, not the intelligent design movement, which was on trial.

The bulk of the article is spent re-debating whether or not intelligent design is science. Realistically, this is the last hope of the intelligent design movement. Its relationship with creationism and the usually overtly religious motives of its supporters will make passing future iterations of the purpose prong of the test difficult. If it is scientific, however, its effects cannot be any more or less religious than the effects of teaching other science, even if that science does have a secondary effect on religious beliefs. Evolution is an example of this. Indeed, it is a constantly rejected argument of the creationist movement that evolution violates the Establishment Clause by being “anti-religious.” Unfortunately for intelligent design proponents, their science seems to boil down to the simple philosophy that “if you don’t understand how something works, never mind: just give up and say God did it.”¹⁰⁴ Intelligent design is no more science than creation-science is, and its main pursuit is not the search of evidence to bolster its position, but the search for gaps that could raise doubt about evolutionary theory. Intelligent design is not science, it is an attempt to discredit science. Indeed, the fact that the creationist textbook that was at issue in *Kitzmiller* had the word “creationism” replaced with the words “intelligent design” is particularly telling.¹⁰⁵ Without further

103 DeWolf, *supra* note 5 at 11.

104 *God Delusion*, *supra* note 87 at 132.

105 *Kitzmiller*, *supra* note 3 at 721.

scientific evidence of the legitimacy of their position, it is difficult to see any court case on the subject escaping the effects prong of the test and ending differently than it did in *Kitzmiller*.

V. CONCLUSION: THE AMERICAN WAY

As stated above, 54% of Americans think they are not the product of evolution.¹⁰⁶ All this number makes clear is that the issue has not died down. Despite the unlikelihood of legal success and the blatant unconstitutionality of teaching creationism or disclaiming evolution, the issue is as much one of faith as it is law. The interpretations of the constitution in cases from *Epperson* to *Kitzmiller* are no doubt correct, but how can they be justified to a population so clearly in thrall to anti-scientific religious theories? The answer is in the beautiful simplicity of the Establishment Clause that allows judges to maintain their personal religious beliefs while banning those beliefs from science classes. The 54% cited above may be a sad statistic indicative of a broken school system or a positive development and a testament to the enduring power of people's faith, but it points at a constitution that is maintaining one of its core tenets in the face of an incredibly divisive issue.

Epperson made it unconstitutional to ban teaching evolution. *McLean* and *Edwards* made it unconstitutional to require teaching creationism alongside it, and *Kitzmiller* made it unconstitutional to disclaim evolution with unscientific theories. These decisions were made using different elements of different legal tests. The purpose prong of the *Lemon* Test has contracted and expanded, and the reasonable observer has made an appearance there as well as in the "effect" analysis. The jurisprudence is muddled and insufficient emphasis is placed on a government action's actual effect, but throughout it all the central principle that "Congress shall

¹⁰⁶ *Time*, *supra* note 8.

make no law respecting an establishment of religion, or prohibiting the free exercise thereof” has been held to mean that if it is not science, it cannot be taught in science class.

In the current legal context, the future of creationism in public schools is murky, at best. As Chapman points out, “What natural selection will ultimately do with all of us remains to be seen, but in the Dover school board election that took place shortly after the trial, it eliminated nearly all those who supported intelligent design.”¹⁰⁷ Bonsell and Buckingham, the gentlemen whose religious convictions began the latest round of this 80-year conflict in Dover were unceremoniously voted out. The decision in *Kitzmiller* and the cases that preceded it represent a victory of constitutional principles over passionate and well-intentioned, but ultimately misguided, activism by individuals and legislators. Perhaps Dover is a microcosm of the United States and perhaps not, but *Kitzmiller* and the decisions that came before it represent a victory of the separation of church and state over religious indoctrination in public schools, and the victory of scientific method over supernatural belief.

¹⁰⁷ Chapman, *supra* note 102 at 183.