

ACADEMIC FREEDOM AFTER *EDWARDS*

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I. INTRODUCTION

When the ACLU¹ staged the trial of John Scopes in 1920, its purpose was to suggest in the public mind a contrast between an educator fearlessly searching for truth² and a rigid orthodoxy afraid of any challenge.³ The *Scopes* case has often been cited as an example of a case in which the battle was lost but the war was won.⁴ Those who accept and those who reject the theory of evolution⁵ differ sharply over what should be taught in the public schools, but almost everyone⁶

¹ The role of the ACLU in using *Scopes* as a test case is described in EDWARD J. LARSON, *SUMMER FOR THE GODS* (1997), reviewed in Don Herzog, *Liberalism Stumbles in Tennessee*, 96 MICH. L. REV. 1898 (1998).

² See *Scopes v. State*, 289 S.W. 363, 369 Tenn. (1927). In the words of an expert witness for the defense,

The theory of evolution is altogether essential to the teaching of biology and its kindred sciences. To deny the teacher of biology the use of this most fundamental generalization of his science would make his teaching as chaotic as an attempt to teach astronomy without the law of gravitation or physics without assuming the existence of the ether.

Id.

³ The majority of the court avoided deciding the case on the merits of whether the theory of evolution (or its rivals) was actually true. Instead, it decided that the choice of what to teach was left to the sound discretion of the legislature and the school board and that Scopes, as an employee, had no right to make his own curricular decisions. *Id.* at 364.

The plaintiff in error was a teacher in the public schools of Rhea county. He was an employee of the state of Tennessee or of a municipal agency of the state. He was under contract with the state to work in an institution of the state. He had no right or privilege to serve the state except upon such terms as the state prescribed.

Id.

⁴ Tony Perkins, *Covenant Marriage: A Legislator's Perspective*, 12 REGENT U. L. REV. 27 (1999-2000).

⁵ Throughout this article, I will refer to the theory of evolution as "Darwinism" to distinguish the particular feature of evolution that asserts the adequacy of a naturalistic explanation for the origin of intelligent life. See David K. DeWolf et al., *Teaching the Origins Controversy: Science, or Religion, or Speech?*, 2000 UTAH L. REV. 39, 41 n.4 (2000).

⁶ The principle of "viewpoint neutrality" has a distinguished pedigree:

As early as 1872, this Court said: "The law knows no heresy, and is committed to the support of no dogma, the establishment of no sect." This has been the interpretation of the great First Amendment which this Court has applied in the many and subtle problems which the ferment of our national life has presented for decision within the Amendment's broad command.

Epperson v. Arkansas, 393 U.S. 97, 104 (1968) (quoting *Watson v. Jones*, 80 U.S. (13 Wall.) 679 (1871)) (citation omitted).

On the other hand, "viewpoint neutrality" has not enjoyed universal approbation. For example, one of the justices concurring in the Tennessee Supreme Court's decision in *Scopes* assumed that the legislature had no obligation to treat all theories with equal dignity. "That the Legislature may prohibit the teaching of the future citizens and office holders to the state a theory which denies the Divine Creator will hardly be denied." *Scopes*, 289 S.W. at 369 (Chambliss, J., concurring).

affirms the value of academic freedom as opposed to the use of the public schools as a vehicle of indoctrination.⁷ Thus, when the Louisiana legislature enacted the Balanced Treatment Act in 1981,⁸ its supporters thought that they were on firm ground by prescribing that the teaching of evolution be accompanied by a presentation of creation-science. However, not everyone saw it that way. Indeed, by the time the case reached the United States Supreme Court,⁹ a district court judge had already concluded that the Balanced Treatment Act was anything but balanced and, far from promoting academic freedom, was an unconstitutional advancement of religion. In his dissent, Justice Scalia scolded the majority for doing the very thing that it accused the Act's sponsors of perpetrating: a "*Scopes-in-reverse*."¹⁰

Despite the strong disagreements in this particular case, there was nothing in the majority or concurring opinions that would suggest any repudiation of the principle that academic freedom should apply to the question of how to teach the origins controversy.¹¹ Instead, the debate was over how that principle should be applied to this delicate area. Depending upon how broadly or how narrowly one reads different portions of the *Edwards* opinion, different conclusions might be drawn as to what school board policies would be consistent or inconsistent with its strictures. For instance, the Court states that one might legitimately "teach[] a variety of scientific theories about the origins of humankind to schoolchildren . . . with the clear secular intent of enhancing the effectiveness of science instruction."¹² Thus, one might expect subsequent case law to provide greater clarity for those charged with the responsibility of adopting curriculum standards and classroom policies. Unfortunately, such is not the case. The case law on how best to teach the controversy is scant, and the only guidance comes from cases that are not directly on point. Thus, the purpose of this article is twofold:

⁷ "[T]he First Amendment 'does not tolerate laws that cast a pall of orthodoxy over the classroom.'" *Epperson*, 393 U.S. at 105 (quoting *Keyishian v. Bd. of Regents*, 385 U.S. 589, 603 (1967)).

⁸ LA. REV. STAT. ANN. §§ 17.286.1-.7 (West 1982).

⁹ *Edwards v. Aguillard*, 482 U.S. 578 (1987).

¹⁰ *Id.* at 634 (Scalia, J., dissenting).

¹¹ I will use the term "origins controversy" to refer to the scientific debate over the origin of complexity—the appearance of design—in living things. While Darwin himself never claimed to explain the origin of the first life, he claimed that natural selection possessed the ability to transform simple forms of life into much more complex and ultimately intelligent organisms. Thus, the scientific debate, whether it is concerning the first life or the origin of intelligence, centers around whether intelligence can be derived from unintelligent processes or whether it is more reasonable to conclude that an intelligent end was probably the result of an intelligent cause. *See generally* DeWolf et al., *supra* note 5.

¹² *Edwards*, 482 U.S. at 594.

first, to provide an explanation of those cases that might shed light on the question of how best to teach the controversy, and second, to suggest an approach, consistent with *Edwards*, that makes sense of the principle of academic freedom. Before doing so, however, the *Edwards* case must be examined.

II. *EDWARDS V. AGUILLARD*

In 1981, the Louisiana legislature amended their state's General School Law to include a new section dealing with the teaching of biology in the elementary and secondary public schools.¹³ The material added to the General School Law was entitled the Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction.¹⁴ Known generally as the Balanced Treatment Act, the new provisions affected how differing theories on the origin of life could be presented in the Louisiana public schools. The Act's stated purpose was to protect academic freedom by requiring Louisiana public schools to provide a balanced treatment of both creation-science and evolution-science.¹⁵ While no public school was required to teach about the origin of life, if a school chose to present either the creation-science approach or the evolution-science approach to the origin of life, then the school had to present the other theory as well. The statute further protected teachers who chose to be creation-scientists or who presented scientific data that points to creationism. A curriculum guide and research services were to be developed by the public schools and provided to assist teachers in presenting creation-science to their classes. According to the law, only creation-scientists were to be appointed to the panel charged with providing research services.¹⁶

The statute was passed by a comfortable margin by the Louisiana legislature and signed into law by Governor Edward Edwards.¹⁷ The law was challenged, however, by a group comprised of concerned parents whose children attended Louisiana public schools, Louisiana public school teachers, and various religious leaders who contended that the Balanced Treatment Act violated the Establishment Clause of the First Amendment.¹⁸ The groups maintained that the Act was unconstitutional for two reasons: first, it violated the Establishment Clause by prohibiting the teaching of the theory of evolution; second, the Act furthered an impermissible purpose by advancing the specific religious

¹³ *Aguillard v. Treen*, 634 F. Supp. 426 (E.D. La. 1985).

¹⁴ *Id.*

¹⁵ *Id.* at 429.

¹⁶ *Id.* at 430.

¹⁷ *Edwards*, 482 U.S. at 610 (Scalia, J., dissenting).

¹⁸ *Aguillard*, 634 F. Supp. at 427.

doctrine of creationism.¹⁹ The group also contended that the Act violated the Louisiana Constitution's provisions regulating the public school curriculum.²⁰

A. *The District Court's Opinion*

The plaintiffs' case was first heard by Judge Duplantier of the United States District Court for the Eastern District of Louisiana.²¹ In the interests of federalism, the district court requested that the Fifth Circuit Court of Appeals certify the issue of the Louisiana Constitution's curriculum provisions to the Louisiana Supreme Court. The Fifth Circuit did so, and the state supreme court found that the Balanced Treatment Act was constitutional under state law.²² After the Louisiana court issued its finding, the district court was faced with a plaintiffs' motion seeking summary judgment regarding the First Amendment issues involved in the case.²³ The district court granted the motion for summary judgment, finding that the Balanced Treatment Act violated the First Amendment's provisions guaranteeing the separation of church and state. The district court found that the teaching of creation-science was inherently religious because it implies a divine creator.²⁴ The court found that belief in a supreme being who would function as a creator was generally considered to be a religious tenet, and hence the teaching of creationism was, in effect, teaching a religious belief.²⁵

The district court did not end its examination of the constitutionality of the Balanced Treatment Act there. The court also examined the Louisiana Legislature's prohibition on the teaching of evolution absent the teaching of creation-science. The court found that there could be no secular reason for such a prohibition, and that the State was therefore prohibited by the Establishment Clause from prohibiting the teaching of evolution in its public schools.²⁶ The court further found that since the State was powerless to prevent the teaching of evolution, it could not require that evolution only be taught if creation-science was taught alongside it.²⁷ The court found that the sole reason why the legislature would mandate such a balanced treatment approach

¹⁹ *Id.*

²⁰ *Aguillard v. Treen*, 440 So. 2d 704, 706 (La. 1983).

²¹ *Aguillard*, 634 F. Supp. at 426.

²² *Aguillard*, 440 So. 2d at 710.

²³ *Aguillard*, 634 F. Supp. at 427.

²⁴ *Id.* at 428.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

to the subject matter was to comport with a religious doctrine. Such a reason, the court ruled, violated the Establishment Clause.²⁸

The district court left a window open for the teaching of alternatives to Darwinism in its decision. In dicta, the court stated that it would be possible for a public school curriculum to provide balanced treatment to both evolution and creationism without advocating the latter. A properly worded statute, the court reasoned, could objectively expose students to the theory of creation-science, as part of a secular program to educate public school pupils about the origin of life. The problem with the Louisiana statute was that it would promote the beliefs of some religions at the expense of others and thereby violate the fundamental First Amendment principle that a state must be neutral in its treatment of religions.²⁹

B. The Fifth Circuit Panel

Louisiana appealed the district court's ruling before a panel of the Fifth Circuit Court of Appeals.³⁰ In a decision written by Judge E. Grady Jolly, the appeals court upheld the district court's ruling and found that creationism was a religious belief irrespective of whether it is fully supported by scientific evidence.³¹ Thus, Louisiana's Balanced Treatment Act lacked a secular purpose.

In its examination of the purpose behind the Balanced Treatment Act, the Fifth Circuit focused heavily on the religious implications of creation-science, particularly in light of the historic controversy over religious and non-religious explanations for the origin and existence of life.³² While it did not deny that the underpinnings of creation-science might have some scientific support, the court perceived an abiding hostility on the part of religionists to the teaching of evolution. The court found that the purported secular purpose of the Louisiana law—to provide academic freedom to teachers—was “not sufficient . . . to avoid conflict with the first amendment.”³³

Despite the Fifth Circuit's clearly negative view of Louisiana's Balanced Treatment Act, the appeals court did not entirely foreclose the teaching of alternatives to Darwinism in the public schools. The court specifically noted that it was not attempting to pass judgment on the merits of creationism as either a theological or scientific belief. Rather, the court emphasized that its ruling was based on the First

²⁸ *Id.*

²⁹ *Id.* at 429.

³⁰ *Aguillard v. Edwards*, 765 F.2d 1251 (5th Cir. 1985).

³¹ *Id.* at 1253.

³² *Id.*

³³ *Id.* at 1256.

Amendment's requirement that no law favor any specific religion or religious belief.³⁴ More important than this, however, was a direct statement by the court that there was no judicial means for preventing the voluntary presentation of scientific evidence which coincides or is harmonious with the tenets of some or all religions.³⁵

C. *The Fifth Circuit En Banc*

After the appellate court panel affirmed the District Court ruling, Louisiana sought review of the decision *en banc* by the Fifth Circuit.³⁶ The petition was denied, but a significant number of the judges of the Fifth Circuit dissented.

Like the district court, Judge Gee began his dissenting opinion by recalling the *Scopes* case.³⁷ He then examined the text of the Louisiana Balanced Treatment Act and concluded that far from attempting to stifle academic discourse, the real purpose of the Act was to ensure that both the theory of evolution and the theory of creation were given equal time.³⁸ Judge Gee also found that, rather than attempting to discredit either creationism or evolution, the Act merely sought to prevent either theory from being misrepresented as fact.³⁹ While Judge Gee conceded, for purposes of argument, that many of the legislators who had supported the Balanced Treatment Act did so out of religious motivations, he noted that laws which had previously been upheld by the Fifth Circuit, including another Louisiana law closing some businesses on Sunday, may well have been motivated by religious conviction, yet still survived scrutiny under the Establishment Clause.⁴⁰ He noted that the panel's holding had the effect of preventing states from requiring that the truth be presented to students in the public school system. After this case, the dissent observed, it does not suffice to teach the truth; one must also teach it with the approved motive.⁴¹ The effect of such a rule was to put the Constitution in the perverse position of prohibiting the truth from being conveyed through the curriculum of the public schools.⁴²

³⁴ *Id.* at 1258.

³⁵ *Id.* at 1257 (quoting *McGowan v. Maryland*, 366 U.S. 420, 442 (1961)).

³⁶ *Aguillard v. Edwards*, 778 F.2d 225 (5th Cir. 1985).

³⁷ *Id.* at 226 (Gee, J., dissenting).

³⁸ *Id.* (Gee, J., dissenting).

³⁹ *Id.* (Gee, J., dissenting).

⁴⁰ *Id.* at 227 (Gee, J., dissenting).

⁴¹ *Id.* at 228 (Gee, J., dissenting).

⁴² *Id.* (Gee, J., dissenting).

D. The Supreme Court's Opinion

After the Fifth Circuit Court of Appeals refused to rehear the case *en banc*, the State of Louisiana petitioned for Supreme Court review. The Court granted *certiorari*, and by a 7-2 ruling upheld both the lower court rulings that found the Balanced Treatment Act unconstitutional.⁴³ Justice Brennan wrote the majority opinion, joined by Justices Marshall, Blackmun, Powell, and Stevens. Justice Powell wrote a concurring opinion, joined by Justice O'Connor. Justice White wrote an opinion concurring only in the judgment. Justice Scalia wrote a strong dissent in which he was joined by Chief Justice Rehnquist.

1. The Majority Opinion

The Court's opinion began with an overview of the Louisiana law, which Brennan tellingly characterized as "[t]he Creationism Act."⁴⁴ The Court then provided a brief overview of the constitutional standards which it would employ in deciding the case: the First Amendment's prohibition on the establishment of religion and the oft-criticized *Lemon* test.⁴⁵ The Court explained that the Louisiana case occurred within the special context of public elementary and secondary education. Because parents entrust their children to the public schools and public school attendance is involuntary, the state has great coercive power over public school students. In light of this coercive power, the Court emphasized that it has been particularly vigilant in monitoring public school compliance with the Establishment Clause.⁴⁶ The Court also noted that it was concerned that divisive forces be kept out of the public schools.⁴⁷

Using the three prongs of the *Lemon* test as its conceptual framework, the Court evaluated the Louisiana law under the purpose prong of that test. Under the purpose prong, the Establishment Clause is violated if the actual purpose of a government action is to endorse or disapprove of religion.⁴⁸ While the Court acknowledged that the Act's stated purpose was to protect and foster academic freedom, it would not be bound to accept that purpose if indeed it were merely a sham.⁴⁹ The Court explicitly held that the Act was not designed to meet that goal, but instead was designed "to restructure the science curriculum to conform to a particular religious viewpoint."⁵⁰

⁴³ *Edwards v. Aguillard*, 482 U.S. 578 (1987).

⁴⁴ *Id.* at 580.

⁴⁵ *Lemon v. Kurtzman*, 403 U.S. 602 (1971).

⁴⁶ *Edwards*, 482 U.S. at 583.

⁴⁷ *Id.* at 584.

⁴⁸ *Id.* at 585.

⁴⁹ *Id.* at 586-87.

⁵⁰ *Id.* at 593.

In evaluating the Act's purpose, the Court paid heavy attention to statements made by the Act's chief legislative sponsor, state Senator Bill Keith. Senator Keith made several statements on the record indicating that his intent was to limit what was taught in the public schools of Louisiana, an intention that the Court believed ran counter to the notion of academic freedom that the Act claimed to protect. The Court held that the Act failed to provide teachers with any additional flexibility in teaching scientific theories to their students and that it created a discriminatory preference in favor of teaching creationism.⁵¹ This discriminatory preference was demonstrated, in the Court's view, by the Act's provisions requiring the development of curriculum guides on creation-science, the exclusive mandate of resource services for creation-science, and the requirement that only creation scientists serve on the resource services panel. In light of these facts, the Court found that the Act's stated purpose of protecting academic freedom simply was not tenable.⁵²

After discarding the validity of the stated purpose of the Balanced Treatment Act, the Court went on to examine what it found to be the real purpose of the law: to foster religion. The Court found that there was a historic and contemporaneous link between the theory of evolution and certain religious groups.⁵³ It drew a direct parallel between the instant case and earlier ones like *Epperson v. Arkansas*,⁵⁴ *Stone v. Graham*,⁵⁵ and *Abington School District v. Schempp*.⁵⁶ In those cases, the Court examined religious purposes, which may have underlayed government actions that had professed secular goals. The Court found that the historic antagonism held by some religious groups toward the theory of evolution was the real motivating factor behind the Louisiana Legislature's decision to enact the Balanced Treatment Act. The Court further found that the primary purpose of the Act was to alter the curriculum of the public schools so that a persuasive advantage would be provided to scientific creationism.⁵⁷ The Court supported this reading of the Act by reciting several statements in the legislative history made by Senator Keith. It also noted that out of all the scientific theories being taught in Louisiana public schools, the legislature chose to target one, which had been opposed by certain religious groups.⁵⁸ Based on these factors, the Court concluded that the Balanced Treatment Act was

⁵¹ *Id.* at 588.

⁵² *Id.* at 584.

⁵³ *Id.* at 591.

⁵⁴ 393 U.S. 97 (1968).

⁵⁵ 449 U.S. 39 (1980).

⁵⁶ 374 U.S. 203 (1963).

⁵⁷ *Id.* at 593.

⁵⁸ *Id.*

designed to restructure the science curriculum to conform to a particular religious viewpoint in violation of the Establishment Clause.⁵⁹

After holding the Louisiana law unconstitutional, the Court concluded its discussion of the constitutional issues in the case by emphasizing that its ruling did not prevent the states from requiring schools to include scientific critiques of prevailing scientific theories. The Court noted that school children could be taught a variety of scientific theories about the origins of life.⁶⁰ The Court was careful to add, however, that exposure to these multiple theories must be done with the clear secular intent of enhancing the effectiveness of science instruction⁶¹ rather than as an attempt to further religious doctrine.

2. Justice Powell's Concurrence

Justice Powell wrote a lengthy and analytically complex concurrence in which he was joined by Justice O'Connor.⁶² He set out the two-fold purpose of his concurrence forthrightly at its beginning: to comment on the legislative history of the Louisiana act and to emphasize that the Court's decision should not be read to undermine or reduce the discretion of local and state educational officials to determine the curriculum of the public schools.⁶³ As to his first point, Justice Powell agreed with the main holding of the Court's opinion: the Balanced Treatment Act did not have a secular purpose, it failed to meet the secular-purpose prong of the *Lemon* test; and it therefore violated the Establishment Clause of the First Amendment. But, Justice Powell also made it clear that simply because a statute is enacted out of religious purpose is not enough under the *Lemon* test to invalidate the law. In order to be constitutionally illegitimate, the religious purpose must predominate.⁶⁴ After reviewing the legislative history of the Act, Powell concluded that a religious purpose did indeed predominate, so much so that the Justice found that religious belief was the reason for the Act's existence.⁶⁵ Powell reasoned that while the states certainly had the right to protect academic freedom in the public school classroom, they did not have the right to do so at the expense of the Establishment Clause.

As for his second point, Justice Powell steadfastly insisted that local and state education officials still have the authority to determine the curriculum used in public education, even if that curriculum "happens to

⁵⁹ *Id.*

⁶⁰ *Id.* at 594.

⁶¹ *Id.*

⁶² *Id.* at 597 (Powell, J., concurring).

⁶³ *Id.*

⁶⁴ *Id.* at 599.

⁶⁵ *Id.* at 603.

coincide or harmonize with the tenets of some or all religions.”⁶⁶ As long as the purpose of the government action is not clearly religious, educational officials need not fear constant attacks against such curriculum on the basis of the Establishment Clause. In particular, Justice Powell noted that it would be constitutionally permissible for pupils in public schools to be taught about America’s religious heritage, including the “Founding Fathers’ religious beliefs and how the beliefs affected the attitudes of the times and the structure of our government.”⁶⁷ He also saw no constitutional problem with teaching comparative religion in public school or using religious documents, including the Bible, as tools in public education so long as they were not used to advance a particular religious belief.⁶⁸

3. Justice White’s Concurrence

“[T]his is not a difficult case,” wrote Justice White.⁶⁹ He viewed the Act’s requirement that creationism be taught alongside evolution whenever the latter theory was presented to students as the critical component of the Act. This requirement conditioned the teaching of the theory of evolution on the teaching of a religious doctrine.⁷⁰ In light of this requirement, the lower courts properly discerned that the purpose of the Act was to advance religion, thereby violating the first prong of the *Lemon* test’s reading of the Establishment Clause.⁷¹

While indicating that he might have disagreed, as an original matter, with the lower courts’ rulings on the constitutionality of the Act, White still upheld the lower courts’ decisions. He did so on the grounds that the Supreme Court has a strong policy of deferring to the holdings of district courts and courts of appeal when interpreting state statutes for purposes of constitutional review.⁷² This policy of deference, according to White, is based on the belief that district courts and courts of appeals are better schooled in, and are more able to interpret, the laws of their respective States.⁷³ White concluded by stating that the only way the Court could avoid overturning the Balanced Treatment Act was to reconsider the Court’s own underlying jurisprudence regarding the Establishment Clause. Since such a reconsideration was not undertaken

⁶⁶ *Id.* at 605 (quoting *Harris v. McRae*, 448 U.S. 297, 319 (1980)).

⁶⁷ *Id.* at 606-07.

⁶⁸ *Id.* at 607-08.

⁶⁹ *Id.* at 608 (White, J., concurring).

⁷⁰ *Id.* at 609.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

by the Court, White felt that the Court was required to affirm the Fifth Circuit ruling in the case.⁷⁴

4. Justice Scalia's Dissent

Justice Scalia, joined by Chief Justice Rehnquist, built his dissent around what he perceived as three foundational errors in the Court's approach to the Balanced Treatment Act.⁷⁵ First, Scalia attacked the Court's finding that the Act lacked a proper secular purpose as required by the *Lemon* test. Arguing that the Court misapplied the purpose prong of the *Lemon* test, Scalia strongly objected to the idea that the Establishment Clause prohibited legislators from acting upon their religious convictions.⁷⁶ He also noted that, under established precedent, it was improper to presume that a law is intended to advance religion simply because the law coincides with, is harmonious with, or somehow benefits religious belief.⁷⁷ He also discussed three instances where the Court had ruled that the government was either required or permitted to advance religion. He closed his first objection to the Court's opinion by noting that the Court has historically been reluctant "to attribute unconstitutional motives to the States."⁷⁸

Scalia's second objection dealt with the Court's reading of the legislative history of the Act. He noted that there was nothing in the history of the Act to indicate that Louisiana had passed the law in order to comport with fundamentalist religious fervor.⁷⁹ Scalia cited to testimony provided before the Louisiana legislature, which gave credence to the Act's stated purpose of fostering academic freedom, particularly in regards to origin of life issues. He noted that, while many found creation-science intellectually unpersuasive, the proper inquiry for the Court was not whether the legislature's belief that enacting the law would protect academic freedom was wise, but whether it was sincere. Based on the record before the Court, Scalia found that the legislature did act sincerely and that they had abundant reasons for believing that academic freedom would be fostered and protected by the Balanced Treatment Act. The Court's opinion finding otherwise, Scalia was convinced, was the result of a deliberate effort to misinterpret academic freedom as set forth in the Act.⁸⁰

⁷⁴ *Id.* at 610.

⁷⁵ *Id.* at 610 (Scalia, J., dissenting).

⁷⁶ *Id.* at 615.

⁷⁷ *Id.*

⁷⁸ *Id.* at 618 (quoting *Mueller v. Allen*, 463 U.S. 388, 394 (1988)).

⁷⁹ *Id.* at 619.

⁸⁰ *Id.* at 627.

Scalia's third objection to the Court's decision involved the practical difficulty of ascertaining the exact motive or purpose of a legislative enactment.⁸¹ Legislators are not always clear why they enact legislation, and they may act from a multiplicity of motivating factors. Some of these factors may be of constitutional import; others may be somewhat banal by comparison. But in the end, it is probably impossible to ascertain the sole purpose for which even a single legislator acts. Even if it was ascertainable, how can the Court go about determining the intention of the legislature as a whole? Oftentimes, legislators support the same bill out of conflicting motivations or purposes; in such a case there may be no motivation or purpose subscribed to by the majority. Because of these concerns, Scalia argued, it would be more prudent for the Court to dispose of the first prong of the *Lemon* test altogether.⁸²

III. PURSUING ALTERNATIVES TO DARWINISM BY AVOIDING *EDWARDS'* PITFALLS

A. *Avoiding Improper Motivation*

1. The Significance of Motive in *Edwards*

It may be helpful to begin with an analogy. Suppose that a city sanitation supervisor hired a staff of 30 garbage collectors, all of whom were Seventh-Day Adventists. Disappointed applicants for those jobs might suspect that an improper religious motivation played a role in the selection of the successful candidates. In explaining her reasoning, the sanitation supervisor might place into the record the sterling credentials of the candidates and assert that they were the best qualified. Nonetheless, a district court judge very well might conclude that there had been a discriminatory religious motive and that the action of the supervisor was therefore unconstitutional. If a judgment in favor of the plaintiffs was affirmed on appeal, would anyone draw from the case the conclusion that it is unconstitutional to appoint Seventh-Day Adventists as city employees or even that these particular individuals should never be hired? No, of course not. The proper conclusion would be that appointments must be made on a religiously neutral basis.

Yet, it is easy to find commentators who draw from *Edwards* the conclusion that it is unconstitutional to teach creationism alongside evolution.⁸³ To say that they are unjustified in doing so is not to deny

⁸¹ *Id.* at 636.

⁸² *Id.* at 640.

⁸³ See Lisa D. Kirkpatrick, Note, *Forgetting the Lessons of History: The Evolution of Creationism and Current Trends to Restrict the Teaching of Evolution in Public Schools*, 49 *DRAKE L. REV.* 125, 127-28 (2000).

that the more minimalist position of Justice White⁸⁴ is found in an opinion that only concurs in the judgment, and presumably the majority was saying something more expansive. On the other hand, the majority stops far short of suggesting that the teaching of creationism itself is objectionable. Instead, the majority repeatedly emphasizes that it is the manner and motivation for requiring the teaching of creationism that renders the legislation unconstitutional.⁸⁵

2. Confusing Purpose and Motivation

In the first stage of the development of the evolution-creationism controversy, the teaching of evolution was explicitly prohibited. In the second stage, teaching evolution was allowed only when accompanied by the presentation of the theory of creationism. The third and present stage attempts to make an end-run around the Supreme Court's clear pronouncement that creationism has no place in public school science classrooms by keeping Darwin out of the classroom.

Id. (footnotes omitted); see also Jay D. Wexler, *Of Pandas, People, and the First Amendment: The Constitutionality of Teaching Intelligent Design in the Public Schools*, 49 STAN. L. REV. 439, 441 (1997) ("How can teaching creationism in the public schools still be an issue despite the Supreme Court's 1987 decision in *Edwards v. Aguillard* striking down a Louisiana statute that required teachers to give equal time to creationism and evolution?").

⁸⁴ *Edwards*, 482 U.S. at 609 (White, J., concurring) (stating that where a district court judge has made findings, supported by competent evidence, that there was an improper religious motive for a state action, higher courts should defer to such a finding unless it is plainly erroneous).

⁸⁵ "It is clear from the legislative history that the purpose of the legislative sponsor, Senator Bill Keith, was to narrow the science curriculum." *Id.* at 587.

Furthermore, the goal of basic "fairness" is hardly furthered by the Act's discriminatory preference for the teaching of creation science and against the teaching of evolution. While requiring that curriculum guides be developed for creation science, the Act says nothing of comparable guides for evolution. Similarly, resource services are supplied for creation science but not for evolution. Only "creation scientists" can serve on the panel that supplies the resource services. The Act forbids school boards to discriminate against anyone who "chooses to be a creation-scientist" or to teach "creationism," but fails to protect those who choose to teach evolution or any other non-creation science theory, or who refuse to teach creation science.

Id. at 588 (citations omitted).

"[W]e need not be blind in this case to the legislature's preeminent religious purpose in enacting this statute." *Id.* at 590. "The legislative history documents that the Act's primary purpose was to change the science curriculum of public schools in order to provide persuasive advantage to a particular religious doctrine that rejects the factual basis of evolution in its entirety." *Id.* at 592. "In this case, the purpose of the Creationism Act was to restructure the science curriculum to conform with a particular religious viewpoint." *Id.* at 593. "Because the primary purpose of the Creationism Act is to advance a particular religious belief, the Act endorses religion in violation of the First Amendment." *Id.* "[B]ecause the primary purpose of the Creationism Act is to endorse a particular religious doctrine, the Act furthers religion in violation of the Establishment Clause." *Id.* at 594.

One of the difficulties faced by those who wish to take advantage of the “teach all scientific theories” encouragement of *Edwards* is that the Court badly confused the requirement from *Lemon* that the legislation have a secular purpose with the search for what *motivates* the action of the legislative body. The distinction between motive and purpose is elementary in criminal law.⁸⁶ The question of whether a defendant is guilty of homicide depends upon whether he acted with the purpose of accomplishing a particular result, not whether his motives were beneficent or malevolent.⁸⁷ In a similar way, the question of secular purpose must be distinguished from whether the secular purpose is itself motivated by a desire to be re-elected, a general sense that an action would advance the public welfare, or in obedience to an angelic visit. While one of the main motivating factors for some Louisiana legislators in promulgating the Balanced Treatment Act may have been religious, is the presence of such religious motivation sufficient by itself to alter the purpose of a legislative enactment?

In examining the Supreme Court’s pre- and post-*Lemon* jurisprudence on this point, one finds that the Court has not viewed religious motivation in the legislative arena as toxic per se. While a law with a clear religious purpose would be unconstitutional under *Lemon*, until *Edwards*, laws that might be motivated by religious conviction were generally upheld. For example, in *McGowan v. Maryland*⁸⁸ the Supreme Court fashioned what would later become the purpose prong of the *Lemon* test. In *McGowan*, the Court rejected the argument that a Sunday closing law violated the Establishment Clause because its purpose was to encourage church attendance. The Court held that laws that coincided with the tenets of a particular religion or religion in general could survive constitutional scrutiny, even if motivated by religious belief, so long as there was a legitimate secular purpose to the legislation. As long as laws serve secular purposes and meet secular needs, the Court held, such laws may be harmonious with and motivated by religious faith.⁸⁹ For example, the Court noted that murder, adultery, polygamy, theft, and fraud are all illegal and are also prohibited by the Judeo-Christian religions. Such religious roots do not invalidate a law

⁸⁶ Frederick M. Lawrence, *The Punishment of Hate: Toward a Normative Theory of Bias-Motivated Crimes*, 93 MICH. L. REV. 320, 381 n.173 (1994). (“Motive can be distinguished from purpose. Purpose concerns a person’s conscious object to engage in certain conduct or to cause a certain result. See, e.g., MODEL PENAL CODE § 2.02(2)(a)(i) (1962). Motive, on the other hand, concerns the cause that drives the action to further that purpose.”).

⁸⁷ See Laurence H. Tribe, *The Mystery of Motive, Private and Public: Some Notes Inspired by the Problems of Hate Crime and Animal Sacrifice*, 1993 SUP. CT. REV. 1.

⁸⁸ 366 U.S. 420, 442 (1961).

⁸⁹ *Id.* at 442.

automatically, so long as there are purely secular grounds to justify the legislature's actions. The Court found that the Sunday closing law had a sufficient secular purpose, namely to provide the general population with a day of rest to recover from the past week and to prepare for the coming one, thus distinguishing between the legislation's motivation (which may be religious) from its purpose (which must be secular).⁹⁰

The Court's failure in *Edwards* to observe this basic distinction is disappointing. As Justice Scalia noted, courts have usually treated the legislature's announcement of its purposes with deference.⁹¹ In *Lynch v. Donnelly*,⁹² the Court held that the statute's purpose need not be exclusively secular. In *Wallace v. Jaffree*,⁹³ the Court stated that a statute violates the Establishment Clause "if it is entirely motivated by a purpose to advance religion."⁹⁴ Although "[n]o legislative recitation of a supposed secular purpose can bind" a court to a statute's "pre-eminent purpose,"⁹⁵ there is room for some comity toward coordinate branches of government. For example, in *Cammack v. Waihee*,⁹⁶ the Ninth Circuit upheld the recognition of Good Friday because it fulfilled a secular purpose, as well as having a religious purpose that may have motivated the legislature.

3. Does Religious Motivation Trump Secular Purpose?

It would have been difficult for the sponsors of the Balanced Treatment Act, or at least some of its supporters, to deny that their actions were in part motivated by a concern for the religious sensibilities of parents and students in Louisiana schools. But, does that motivation, if mixed with otherwise acceptable secular purposes, create a poisonous brew that will doom the constitutionality of any action based on that motivation? A recent case might lead to that dismal conclusion.

In *Freiler v. Tangipahoa Parish Board of Education*,⁹⁷ parents of schoolchildren in the Tangipahoa parish sued to enjoin the reading of a disclaimer that had been prepared by the school board.⁹⁸ The board passed a resolution in April 1994 as follows:

⁹⁰ *Id.* at 449.

⁹¹ See *Bown v. Gwinnett County Sch. Dist.*, 112 F.3d 1464 (11th Cir. 1997) (adopting a "moment of silence" was in service of a valid secular purpose and met the other prongs of the *Lemon* test).

⁹² 465 U.S. 668 (1984).

⁹³ 472 U.S. 38 (1985).

⁹⁴ *Id.* at 56.

⁹⁵ *Church of Scientology Flag Serv. Org., v. City of Clearwater*, 2 F.3d 1514, 1527 (11th Cir. 1993) (quoting *Stone v. Graham*, 449 U.S. 39, 41 (1980) (per curiam)).

⁹⁶ 932 F.2d 765 (9th Cir. 1991).

⁹⁷ 975 F. Supp. 819 (E.D. La. 1997).

⁹⁸ *Id.* at 821.

Whenever, in classes of elementary or high school, the scientific theory of evolution is to be presented, whether from textbook, workbook, pamphlet, other written material, or oral presentation, the following statement shall be quoted immediately before the unit of study begins as a disclaimer from endorsement of such theory.

It is hereby recognized by the Tangipahoa Board of Education, that the lesson to be presented, regarding the origin of life and matter, is known as the Scientific Theory of Evolution and should be presented to inform students of the scientific concept and not intended to influence or dissuade the Biblical version of Creation or any other concept.

It is further recognized by the Board of Education that it is the basic right and privilege of each student to form his/her own opinion or maintain beliefs taught by parents on this very important matter of the origin of life and matter. Students are urged to exercise critical thinking and gather all information possible and closely examine each alternative toward forming an opinion.⁹⁹

The challenge to the disclaimer was that it violated the Establishment Clause.¹⁰⁰ In analyzing whether the school board's action had a secular purpose, under the *Lemon* test,¹⁰¹ the court noted that in *Edwards* the U.S. Supreme Court had "analyzed both the official stated purpose and the motivations behind the promulgation of the statute, as evidenced by the discussion of the legislative sponsor and other legislators, to determine the true purpose."¹⁰² While the judge recognized that "a proposed state act may be motivated in part by religion, it is unconstitutional 'if it is entirely motivated by a purpose to advance religion.'"¹⁰³

The district court reviewed the record of the adoption of the school board resolution and found that the disclaimer would not advance any interest that was not already protected by existing law.¹⁰⁴ Moreover, the

⁹⁹ *Id.*

¹⁰⁰ *Id.* at 824-25.

¹⁰¹ *Lemon v. Kurtzman*, 403 U.S. 602, 612 (1971).

¹⁰² *Freiler*, 975 F. Supp. at 826.

¹⁰³ *Id.* at 827 (quoting *Wallace v. Jaffree*, 472 U.S. 38, 57 (1985)).

¹⁰⁴ The court stated:

The School Board also stresses that the point is that the teachers advise the students that they have the right to form their own opinions or maintain the beliefs taught to them by parents or in Sunday School on the origin of life. This Court can hardly conceive that students do not already have that right, or are unaware that they have it, or conversely, in its absence, that teachers in Tangipahoa Parish public schools teach students that they do not have the right to believe in Divine Creation, if they so choose.

judge found no secular purpose in the school board's claim that they were attempting to address the concerns of parents and students that their beliefs were being disregarded.¹⁰⁵ The judge reasoned that

[w]hat offends parents, students, and School Board members about the teaching of evolution, and the reasons which underlay the Creation Science proponents [in *Edwards v. Aguillard*], is that the teaching of the scientific theory of evolution in public schools is not accompanied by the theory, indeed the belief, that a Supreme Being was the designer and creator of humankind.¹⁰⁶

The school board appealed the trial court's ruling, as well as the award of \$64,094 for the plaintiffs' attorney fees.¹⁰⁷ A three-judge panel of the Fifth Circuit affirmed.¹⁰⁸ While acknowledging that courts "must exercise great 'care and restraint' when called upon to intervene in the operation of public schools,"¹⁰⁹ the panel nonetheless upheld the district court's ruling, as well as the award of attorney fees, although it offered a different basis upon which to sustain the injunction. The court rejected the trial court's finding that school board's justification for the disclaimer, that it was attempting to address the sensibilities of parents and students, was a mere sham.¹¹⁰ Instead, the Fifth Circuit panel found that the purpose was a legitimate one.¹¹¹ However, the panel found that "the primary effect of the disclaimer is to protect and maintain a particular religious viewpoint, namely belief in the Biblical version of creation."¹¹² This conclusion was based upon a review of the record in the case, which was contrary to its stated intent:

Beyond merely 'disclaiming' endorsement of evolution, the two paragraph passage urges students to take action—to 'exercise critical thinking and gather all information possible and closely examine each alternative' to evolution. [citation omitted] The disclaimer, taken as a

Id. at 829.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337, 341 (5th Cir. 1999), *reh'g denied en banc*, 201 F.3d 602 (5th Cir. 2000), *cert. denied*, 530 U.S. 1251 (2000) (mem.).

¹⁰⁸ *Id.*

¹⁰⁹ *Id.* at 342-43.

¹¹⁰ *Id.* at 344-45.

¹¹¹ As well it should—the Supreme Court had noted that the mere fact of some legislators' motivations does not determine whether the purpose of the legislation as a whole is secular:

Even if some legislators were motivated by a conviction that religious speech in particular was valuable and worthy of protection, that alone would not invalidate the Act, because what is relevant is the legislative purpose of the statute, not the possibly religious motives of the legislators who enacted the law.

Bd. of Educ. of Westside Cmty. Sch. v. Mergens, 496 U.S. 226, 249 (1990).

¹¹² *Freiler*, 185 F.3d at 346.

whole, encourages students to read and meditate upon religion in general and the 'Biblical version of Creation' in particular.¹¹³

The school board then petitioned the Fifth Circuit for a rehearing *en banc*.¹¹⁴ That petition was denied in a per curium opinion, which disclaimed any broad significance in the holding. In denying rehearing, the Fifth Circuit acknowledged that it

do[es] not decide that a state-mandated statement violates the Constitution simply because it disclaims any intent to communicate to students that the theory of evolution is the only accepted explanation of the origin of life, informs students of their right to follow their religious principles, and encourages students to evaluate all explanations of life's origins, including those taught outside the classroom. We decide only that under the facts and circumstances of this case, the statement of the Tangipahoa Parish School Board is not sufficiently neutral to prevent it from violating the Establishment Clause.¹¹⁵

Unpersuaded by that reasoning, seven of the circuit judges dissented from the denial of the petition for rehearing *en banc*, stating that

this disclaimer to the disclaimer, while possibly being the balm necessary to save this case from being reheard *en banc*, does far more harm than good. For this extremely important and sensitive area of the law and of life, it does nothing but muddy the waters even more. (For starters, what does "not sufficiently neutral" mean?) Someone trying to harmonize the panel's holding about the disclaimer and its disclaimer to the disclaimer could conclude, quite justifiably, that the disclaimer does not pass muster because of one simple fact: it mentions the Bible.¹¹⁶

The dissenters were not convinced that the disclaimer would have the effect feared by the majority. Since the effect prong of the *Lemon* test looks to the overall context in which the state's action occurs, they found ludicrous the notion that the school board's action, taken as a whole, advances religion. The dissenters noted that

[i]n examining the disclaimer's effect, the panel erred by not considering the context in which the disclaimer was intended to be used. In the parish schools, evolution is taught; the "Biblical version of Creation" is not! How can the effect of the disclaimer be to endorse or advance a concept that is merely mentioned, using only four words, when evolution is the only concept for the origin of life and matter that

¹¹³ *Id.* at 347 (citation omitted).

¹¹⁴ *Freiler v. Tangipahoa Parish Bd. of Educ.*, 201 F.3d 602 (5th Cir. 2000) (*en banc*), *cert. denied*, 530 U.S. 1251 (2000) (mem.).

¹¹⁵ *Id.* at 603.

¹¹⁶ *Id.* at 604 (Barksdale, J., dissenting).

is included in the curriculum, the only one that will be explained and discussed in any lesson following the disclaimer's being read?¹¹⁷

Judge Barksdale concluded his dissent by observing that, despite its professed devotion to the concept of neutrality, the court had in fact "transformed neutrality into intolerance."¹¹⁸

The final chapter of the *Freiler* saga was a petition to the United States Supreme Court for a writ of *certiorari*. This petition was denied without comment; however, there was a dissenting opinion by Justice Scalia, joined by Justice Thomas.¹¹⁹ He first characterized the reasoning of the Fifth Circuit—its objection to the form of the disclaimer because it mentioned the Bible—as "absurd."¹²⁰ He concluded by summarizing the "evolution" of the court's jurisprudence from a position that favored open dialogue to one that protected one form of thought from criticism.¹²¹

In *Epperson v. Arkansas*, 393 U.S. 97, 89 S.Ct. 266, 21 L.Ed.2d 228 (1968), we invalidated a statute that forbade the teaching of evolution in public schools; in *Edwards v. Aguillard*, 482 U.S. 578, 107 S.Ct. 2573, 96 L.Ed.2d 510 (1987), we invalidated a statute that required the teaching of creationism whenever evolution was also taught; today we permit a Court of Appeals to push the much beloved secular legend of the Monkey Trial one step further. We stand by in silence while a deeply divided Fifth Circuit bars a school district from even suggesting to students that other theories besides evolution—including, but not limited to, the Biblical theory of creation—are worthy of their consideration. I dissent.¹²²

As in *Edwards*, one could read the *Freiler* case as simply a fact-specific set of findings concerning a discriminatory motive on the part of certain legislators. Returning to the analogy of a sanitation supervisor who exercises a religious preference in hiring certain employees,¹²³ one could hardly draw the conclusion that disclaimers by themselves were offensive under the Establishment Clause. In fact, it is hard to avoid the conclusion that the Fifth Circuit's *Freiler* dissent was correct in finding no justification for striking down the action.

To take another analogy, suppose that a public school scheduled its students to perform in a "winter holiday concert" consisting entirely of Christmas carols. Would it be amiss if the school board asked the superintendent to make an announcement prior to the beginning of the concert that "the inclusion only of Christmas music is not intended to

¹¹⁷ *Id.* at 607 (Barksdale, J., dissenting).

¹¹⁸ *Id.* at 608 (Barksdale, J., dissenting).

¹¹⁹ *Tangipahoa Parish Bd. of Educ. v. Freiler*, 530 U.S. 1251 (2000) (mem.), *denying cert. to* 201 F.3d 602 (5th Cir. 2000), *denying reh'g en banc to* 185 F.3d 337 (5th Cir. 1999).

¹²⁰ *Id.* at 2709 (Scalia, J., dissenting).

¹²¹ *Id.* (Scalia, J., dissenting).

¹²² *Id.* (Scalia, J., dissenting).

¹²³ *See supra* text section accompanying note 83.

influence or dissuade anyone from adhering to Judaism, Islam, or any other religious or non-religious belief?" Would it matter that the school board, or for that matter, the superintendent, was motivated by antipathy toward Christianity or a fear that the students might be touched by the appeal of the music and its message? To propose such an objection would be to invite incredulity that the remedy for the program's obvious imbalance was so limited.

4. Worldview Compatibility

A final issue that needs to be addressed in determining the constitutionality of state action is to note the way in which the scientific views in question are either compatible or incompatible with particular religious views. It was important for the majority in *Edwards* that the theory of evolution stood in direct conflict to a particular religious view.¹²⁴ On the other hand, the Court gave no attention to the possibility that evidence undermining the persuasiveness of Darwinism as a scientific theory would be seen as an attack on those holding a worldview that is materialistic.¹²⁵ Just as one might be suspicious of the motives of those who want to introduce evidence that is compatible with their own religious viewpoints,¹²⁶ the shoe can equally be put on the other foot. If *Edwards* should be read, not as an endorsement of the theory of evolution against any rivals, but rather as a protection of true academic freedom against its not-so-cultured despisers,¹²⁷ then the scrutiny of motives should be even-handed rather than one-sided.

Compare for a moment the manner in which a history teacher handles the period of the Protestant Reformation. Suppose there had been a consistent pattern of teaching that the Reformers exercised good judgment in breaking away from a church that had abandoned true Christian doctrine and that this view was objected to by Catholic parents or students. If a school board attempted to bring balance to this controversial area,¹²⁸ how would a court know whether it had either not

¹²⁴ "The legislation therefore sought to alter the science curriculum to reflect endorsement of a religious view that is antagonistic to the theory of evolution." *Edwards*, 482 U.S. at 593.

¹²⁵ See DeWolf et al., *supra* note 5, at 87.

¹²⁶ As the Court in *Edwards* put it, "teaching and learning" must not "be tailored to the principles or prohibitions of any religious sect or dogma." *Edwards*, 482 U.S. at 585.

¹²⁷ FRIEDRICH SCHLEIERMACHER, ON RELIGION: SPEECHES TO ITS CULTURED DESPISERS (1799).

¹²⁸ At one point in our history, this was a topic almost as heated as the debate over how to teach about biological origins. *McCullum v. Bd. of Educ.*, 333 U.S. 203, 236 (1948) (Jackson, J., concurring) ("[H]ow one can teach, with satisfaction or even with justice to all faiths, such subjects as the story of the Reformation, the Inquisition, or even the New England effort to found 'a Church without a Bishop and a State without a King,' is more than I know.").

gone far enough or had gone too far in accommodating the beliefs of one set of parents or another? The fact that the advocates of one view or the other had been successful in adjusting the curriculum to avoid conflict with their own beliefs should not be shocking. Instead, a court overseeing the work of a school board should ask a more useful question: is the presentation one that retains significant bias; or to borrow from the standard for the adequacy of jury instructions, does the presentation permit each party to argue its theory of the case?¹²⁹

To return to the hypothetical of a “winter holiday concert,” suppose parents from Jewish or Islamic backgrounds complained that the choice of music was biased in favor of Christians. In such a case, what test should be used to gauge the constitutionality of the final resolution of the dispute? Again, one could hope for a reasonably fair evaluation of the conflicting claims, such as measuring the number of children from each background, evaluating the degree to which the musical selection enhances or offends a particular perspective, and so forth. It is unrealistic to expect that the decision-making body, such as the school administrator or the school board, would be free of personal preferences or concerns that one group or another had been slighted and corrections needed to be made. In summary, the Court’s treatment of religious motivation in *Edwards* runs the risk of confusing specific factual findings by the district court with a broader generalization about the role of religious motivation in state action.

B. Avoiding Limitations on the Teaching of Evolution

Another way to read the *Edwards* case is to conclude that it had less to do with what the legislature wanted taught than on the effect it might have in preventing the teaching of evolution. In other words, if the legislature had simply “encourage[d] the teaching of all scientific theories about human origins,”¹³⁰ it would have passed constitutional muster. Instead, the “Balanced Treatment Act” made the teaching of evolution conditional on the teaching of creation-science.¹³¹ Not only was there a suggestion, perhaps even encouragement, that evolution not be taught,¹³² the court found that the legislation actually favored the teaching of creationism over evolution.¹³³ In fairness to the Louisiana

¹²⁹ Fiorito Bros. v. Fruehauf Corp., 747 F.2d 1309, 1316 (1984) (“A party is not entitled to a jury instruction phrased exactly as it desires; rather, an instruction is proper if it adequately allows the party to argue its theory of the case to the jury.”).

¹³⁰ *Edwards*, 482 U.S. at 579.

¹³¹ *Id.* at 586.

¹³² The record contained a statement from one of the Act’s sponsors that he would prefer that neither theory be taught. *Id.* at 587.

¹³³ The Court stated:

Legislature, it should be noted that the teaching of evolution, unlike creation-science, was well established in the classroom and did not need “affirmative action” to insure that it would be taught.¹³⁴

Assuming that new legislation was passed, either by a state legislature or by a local school board, that made it quite clear that the legislature was enthusiastic about teaching evolution, but also wanted to teach its scientific rivals, would the constitutionality of such a measure fare any better? Perhaps it would. Given the problems, discussed above, with the motivation of such legislation, even an “equal time” provision might be read as being motivated by a desire to promote the religious beliefs harmonious with one side rather than the other. Nonetheless, there is evidence that one should favor a policy of teaching more than just the Darwinist account as a means of promoting better science education. For example, the ardent Darwinist William B. Provine, a professor of ecology at Cornell University, has complained that the one-sided presentation of evolution in public school science classes makes science education incredibly dull and robs it of the interest that would motivate students.¹³⁵ A school board composed entirely of members subscribing to Provine’s beliefs should be able to pass an “equal time” measure that would avoid the problems of improper motivation and discouragement of the teaching of evolution. But, even that scenario would raise the troublesome question of whether creation-science is really science.

C. Academic Freedom in the Definition of Science

Yet another way to read the *Edwards* opinion is to focus on the content of the curriculum, not on subjective motivations of the

[T]he goal of basic “fairness” is hardly furthered by the Act’s discriminatory preference for the teaching of creation science and against the teaching of evolution. While requiring that curriculum guides be developed for creation science, the Act says nothing of comparable guides for evolution. Similarly, resource services are supplied for creation science but not for evolution. Only “creation scientists” can serve on the panel that supplies the resource services. The Act forbids school boards to discriminate against anyone who “chooses to be a creation-scientist” or to teach “creationism,” but fails to protect those who choose to teach evolution or any other non-creation science theory, or who refuse to teach creation science.

Id. at 588 (citations omitted).

¹³⁴ The National Association of Biology Teachers, which has continuously lobbied for the teaching of an exclusively naturalistic approach to teaching the origins controversy was quite active in opposing the Louisiana legislation and in litigating to have it struck down. See EDWARD J. LARSON, TRIAL AND ERROR: THE AMERICAN CONTROVERSY OVER CREATION AND EVOLUTION 137 (1989); DeWolf et al., *supra* note 5, at 44 n.15.

¹³⁵ William B. Provine, *Teaching About Evolution and The Nature of Science: A Review*, National Academy of Sciences, at http://fp.bio.utk.edu/darwin/NAS_guidebook/provine_1.html (last modified Jan. 10, 2001).

legislators. Although the Louisiana Legislature attempted to cast the conflict as one between “evolution-science” and “creation-science,” the Supreme Court seemed satisfied with the survey results of school superintendents in Louisiana, in which 75 percent of those surveyed stated that they understood “creation-science” to be a religious doctrine.¹³⁶ The majority in *Edwards* appeared almost indifferent to the question of whether “creation science” was a form of science (albeit one that was used as a vehicle for promoting a religious view), or whether it was simply a religious doctrine.¹³⁷ In one sense, of course, it was unnecessary for the Court to decide the issue. Even if creation-science is really science, and could otherwise be validly taught, a statute requiring that it be taught could violate the Establishment Clause if a discriminatory motivation could be demonstrated.¹³⁸ On the other hand, if the Court’s objection to motivation and the teaching of evolution were obviated by a different procedural posture, then it would become critical to decide if creation-science is really science at all.

1. The Demarcation Issue

Five years before *Edwards*, in a case cited by the *Edwards* majority,¹³⁹ a federal district court ruled that a similar Arkansas statute requiring the teaching of “creation-science” was unconstitutional.¹⁴⁰ Judge Overton based his conclusion on a “demarcation” between science and non-science, holding that evolution was science, but creation-science was not.¹⁴¹ In making this determination, Judge Overton relied upon the

¹³⁶ *Edwards*, 482 U.S. at 596 n.18.

¹³⁷ It is true that, at the end of the majority opinion, the court summarizes its opinion by stating, “The Louisiana Creationism Act advances a religious doctrine by requiring 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.” *Id.* at 596. Despite the careful distinction between the religious views it supported and creation-science itself, this characterization of creation-science as “a religious viewpoint” might be viewed as a statement that in fact it was a religious doctrine. Many readers have reached this conclusion. *See supra* note 80. But such reductionism does not do justice to the opinion. If the Court were basing its opinion on a finding that creation-science was merely a religious belief, it could have said so in a much shorter compass, and could have avoided all of the other analysis of academic freedom and the legislature’s purpose. Instead, it makes more sense to view this phrase, “religious viewpoint” as merely a shorthand summary for the longer and more careful analysis of the constitutionality of the Balanced Treatment Act.

¹³⁸ *See supra* text accompanying note 53.

¹³⁹ *Edwards*, 482 U.S. at 590 n.9.

¹⁴⁰ *McLean v. Arkansas Bd. of Ed.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982).

¹⁴¹ *Id.* at 1267-72. The court’s language was unambiguous: Section 4(a) [of the Arkansas law] lacks legitimate educational value because “creation science” as defined in that section is simply not science. *Id.* *See generally* Robert M. Gordon, *McLean v. Arkansas*

expert testimony of the Darwinian philosopher of science Michael Ruse.¹⁴² In his expert testimony, Ruse asserted a five-point definition of science that provided a normative criterion to determine whether a theory qualifies as scientific.¹⁴³ According to Ruse, for a theory to be scientific, it must be: (1) guided by natural law; (2) explanatory by natural law; (3) testable against the empirical world; (4) tentative; and (5) falsifiable.¹⁴⁴ Any theory, according to Ruse, which failed to meet these five criteria could not be considered to be scientific.¹⁴⁵

Philosophers of science, including Ruse himself,¹⁴⁶ have acknowledged that attempts at demarcation such as this are deeply flawed.¹⁴⁷ However, the effort to distinguish science from non-science has critical implications for the constitutionality of efforts to introduce competitors to Darwinism in the public school biology classroom. Since the Supreme Court expressly acknowledged in its opinion that a legislature might legitimately “teach[] a variety of scientific theories about the origins of humankind to schoolchildren . . . with the clear secular intent of enhancing the effectiveness of science instruction,”¹⁴⁸ it must have had in mind that there would be scientific theories other than Darwinism that might be introduced. Yet, despite calling it “creation-science,” the legislature was unable to convince the Court that this was indeed a scientific theory.¹⁴⁹ Based on *Edwards*, what might qualify as a scientific theory?

Board of Education: Finding the Science in “Creation Science,” 77 NW. U. L. REV. 374 (1982).

¹⁴² *Id.* at 1267.

¹⁴³ *Id.* at 1267-72.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* In the court’s words, these five points are the “essential characteristics of science.” *Id.* at 1267.

¹⁴⁶ Ruse later admitted:

Evolution is promoted by its practitioners as more than mere science. Evolution is promulgated as an ideology, a secular religion—a full-fledged alternative to Christianity, with meaning and morality. I am an ardent evolutionist and an ex-Christian, but I must admit that in this one complaint—and Mr. Gish [a promoter of creation-science] is but one of many to make it—the literalists are absolutely right. Evolution is a religion. This was true of evolution in the beginning, and it is true of evolution still today.

Michael Ruse, *How evolution became a religion: Creationists correct?*, NAT’L POST, May 13, 2000, available at 2000 WL 20311123.

¹⁴⁷ See generally DeWolf et al., *supra* note 5, at 68-73.

¹⁴⁸ *Edwards*, 482 U.S. at 594.

¹⁴⁹ To take a more narrow approach, it might be possible to confine the *Edwards* case to its facts in view of the Court’s observation that, instead of presenting only one theory that was in conflict with Darwinism, a legislature desiring “to maximize the comprehensiveness and effectiveness of science instruction . . . would have encouraged the teaching of all scientific theories about the origins of humankind.” *Id.* at 588.

2. A Non-Biblical Approach

One might find fault with creation-science because it adheres so faithfully to the account of creation in the Book of Genesis. Most adherents to creation-science start with the hypothesis that the account in Genesis is true and then look for evidence that is consistent with it. This does not demonstrate that the theory is *a priori* false or that it is unscientific, but it presents a more circumscribed approach to the scientific enterprise. Moreover, most advocates of creation-science acknowledge that they have made a personal faith commitment to the literal truth of the Genesis account. Thus, their ability to pursue the question of biological origins may be challenged based on their passionate commitment to a particular answer to that question. On the other hand, the fact that a particular scientist works for a pharmaceutical company and has a strong predisposition to reach (or avoid) certain conclusions about the effects of a drug manufactured by her employer does not prevent her from conducting scientific research on that topic, even though one is entitled to be skeptical of any scientific claims based on her research.

Even if many critics of creation-science are willing to acknowledge that, at least for some purposes, it is science (albeit bad, even “dreadful”¹⁵⁰ science),¹⁵¹ the case for its constitutionality is hampered by a perception that it does not approach the origins question with an open mind. If this were the critical difference between creation-science and the kind of “scientific theory” which the *Edwards* majority thought appropriate for the curriculum, then it is easy to identify a theory that fits the bill: one that posits actual design as the source of biological life. Even Darwinists concede that the essence of biological life is the appearance of design.¹⁵² If Darwin’s theory was an attempt to define how the appearance of design could have been accomplished without actual design,¹⁵³ then the logical competitor from a scientific standpoint to

¹⁵⁰ Philip L. Quinn, *Creation, Methodology, and Politics*, in *BUT IS IT SCIENCE?* 395-96 (Michael Ruse ed., 1988).

¹⁵¹ Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 *YALE L.J.* 1535, 1628 (1998).

¹⁵² “Biology is the study of complicated things that give the appearance of having been designed for a purpose.” RICHARD DAWKINS, *THE BLIND WATCHMAKER: WHY THE EVIDENCE OF EVOLUTION REVEALS A UNIVERSE WITHOUT DESIGN* 1 (1987). Francis Crick, Nobel laureate and co-discoverer of the structure of DNA, went so far as to warn, “Biologists must constantly keep in mind that what they see was not designed, but rather evolved.” FRANCIS CRICK, *WHAT MAD PURSUIT* 138 (1988).

¹⁵³ As one scholar on the subject expressed it,

The fact of evolution was not generally accepted until a theory had been put forward to suggest how evolution had occurred, and in particular how organisms could become adapted to their environment; in the absence of

Darwinism would be a theory whose hypothesis is that life on earth is the result of actual, not just apparent, design.¹⁵⁴

3. A Majoritarian Approach

The least defensible approach to deciding whether a particular theory is scientific is to suggest that a theory must acquire a certain standing in the scientific community before it can be considered scientific¹⁵⁵ or to rely on a poll as the majority in *Edwards* seemed content to do.¹⁵⁶ If academic freedom is to mean anything, it must defend minority viewpoints from the complaint that they have not been adopted by the majority.¹⁵⁷ Indeed, even the critics of creation-science have acknowledged, particularly in light of the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,¹⁵⁸ that science must be open to dissenting viewpoints.¹⁵⁹

such a theory, adaptation suggested design, and so implied a creator. It was this need which Darwin's theory of natural selection satisfied.

JOHN MAYNARD SMITH, *THE THEORY OF EVOLUTION* 30-31 (1975), *quoted in* DeWolf et al., *supra* note 5, at 49 n.35.

¹⁵⁴ See generally, DeWolf et al., *supra* note 5, at 59.

¹⁵⁵ Eugenie C. Scott, *Keep Science Free from Creationism*, *INSIGHT*, February 21, 1994, at 29; Hearing Before the United States Commission on Civil Rights in Seattle, Washington, (Aug. 21, 1998), *available at* http://www.arn.org/docs/meyer/sm_uscom.htm.

¹⁵⁶ *Edwards*, 482 U.S. at 596, n.18; see *supra* text accompanying note 136.

¹⁵⁷ "If there is any fixed star in our constitutional constellation, it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein." *West Virginia Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943) (Jackson, J., concurring).

¹⁵⁸ 509 U.S. 579, 597 (1993) ("Scientific conclusions are subject to perpetual revision. . . . The scientific project is advanced by broad and wide-ranging consideration of a multitude of hypotheses, for those that are incorrect will eventually be shown to be so, and that in itself is an advance.")

¹⁵⁹ Wexler, *supra* note 83, at 466 (citations omitted).

[O]ther philosophers of science have replaced categorical approaches to defining science with attempts to identify the criteria that make certain theories more persuasive and helpful than others. Even the Supreme Court seemed to adopt this approach in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* [509 U.S. 579 (1993)] where it replaced a bright-line "general acceptance" test for the admission of scientific expert testimony with a series of general factors for courts to consider in determining whether a particular theory is scientifically valid. Courts should continue to follow the philosophers on this point and realize that characterizing a theory as scientific in some sense says nothing about whether it might also be religious or whether teaching it might endorse a religious viewpoint in violation of the Establishment Clause.

Id.

IV. THE FIRST AMENDMENT RIGHTS OF TEACHERS

The question posed by this article is what has become of academic freedom after *Edwards v. Aguillard*. Although many might quarrel with the Supreme Court's finding in *Edwards* that the Balanced Treatment Act did not advance academic freedom and that it was not intended to accomplish that goal, the good news is that the Court affirmed that teachers and students do enjoy academic freedom by acknowledging that "[t]he Act does not grant teachers a flexibility that they did not already possess to supplant the present science curriculum with the presentation of theories, besides evolution, about the origin of life."¹⁶⁰ In an ironic twist, the Court criticized the legislation, not because its stated object was illicit but because that object was not being served by the method used to achieve it. Again, regarding the question of whether the legislation was non-discriminatory (by insuring that a balanced viewpoint was presented) or discriminatory (because it emphasizes creation-science to the detriment of evolution), the argument is not over the goal but the means toward the goal.

The statement just quoted above is actually quite remarkable. In fact, it is hard to take it seriously given a subsequent comment by the Court in a footnote that "in the State of Louisiana, courses in public schools are prescribed by the State Board of Education and teachers are not free, absent permission, to teach courses different from what is required."¹⁶¹ One could harmonize these two statements by suggesting that, while a teacher is not free to teach a different course or to teach topics other than those prescribed in the curriculum, a teacher does have academic freedom to decide what he or she will say on the merits of the topic assigned to him or her. However, there is a genuine question that still remains after reading *Edwards*: if a teacher believed that more effective science education¹⁶² would require introduction of a theory of origins that directly contradicted the theory of evolution, would such a teacher enjoy academic freedom to present such material? As a practical matter, it is quite likely that any teacher who actually asserted the freedom to teach an alternate theory would be told that he or she was departing from the prescribed curriculum and would therefore be unable to exercise such judgment.¹⁶³ What would a court, attempting to follow

¹⁶⁰ *Edwards*, 482 U.S. at 587.

¹⁶¹ *Id.* at 586.

¹⁶² "The Act actually serves to diminish academic freedom by removing the flexibility to teach evolution without also teaching creation science, even if teachers determine that such curriculum results in less effective and comprehensive science instruction." *Id.* at 586.

¹⁶³ A school administrator might do so for a variety of reasons. Most school administrators have been steeped in the culture that accepts the theory of evolution as the only scientific theory worth presenting. See, e.g., *Statement on Teaching Evolution*, National Association of Biology Teachers, at <http://www.nabt.org/evolution.html>. (last

Edwards, say about academic freedom in such a case? We have no direct answer, but we have some cases that will shed varying amounts of light on the subject.

A. *The Wrong Approach: Refusing to Teach Evolution*

It is clear that one acting under the guise of academic freedom may not change the topic or refuse to cover it based upon disagreement with views that would naturally arise from a presentation of that subject. This was the fate of John Peloza, a biology teacher in California who objected to teaching evolution.¹⁶⁴ He considered “evolutionism” to be a religion and therefore claimed a First Amendment right not to teach it.¹⁶⁵ The district court found otherwise, and dismissed his complaint.¹⁶⁶ On appeal, the Ninth Circuit agreed, stating that “[t]he Supreme Court has held unequivocally that while the belief in a divine creator of the universe is a religious belief, the scientific theory that higher forms of life evolved from lower forms is not.”¹⁶⁷

Of course, *Peloza* is not a useful guide to the teacher who wants to teach more, rather than less, about evolution. However, the Ninth Circuit was not particularly helpful in distinguishing the potential for any theory about origins to be presented in a dogmatic rather than scientific fashion. Given the admission by authoritative Darwinists such as Michael Ruse that “evolutionism” can act as a religious belief,¹⁶⁸ it is inappropriate for the Ninth Circuit to treat the question so dismissively. It should have told Mr. Peloza, “No, you can’t refuse to teach the theory of evolution to your students. But you enjoy academic freedom to present the evidence on both sides of the question of whether evolution adequately explains the origin and development of life.” Peloza complained that he was being asked to teach evolution as a fact.¹⁶⁹ The court regarded this as an unimportant question, as though he were being required to teach (as a fact) that the rise of labor unions had a positive

visited Mar. 30, 2001) (“Modern biologists constantly study, ponder and deliberate the patterns, mechanisms and pace of evolution, but they do not debate evolution’s occurrence.”). Even those administrators who would like to take a more open-minded approach are fearful of the wrath of the ACLU and other advocacy groups that have been active in suing school districts wherever they believe that the theory of evolution is under fire. See John Gibeaut, *Evolution of a Controversy*, 85 A.B.A. J. 50 (Nov. 1999). It is noteworthy that the school district in *Freiler* that had the temerity to require a disclaimer be read to biology classes wound up being forced to pay the plaintiffs’ attorneys fees of \$64,094. *Freiler*, 185 F.3d at 337.

¹⁶⁴ *Peloza v. Capistrano Unified Sch. Dist.*, 37 F.3d 517, 519 (9th Cir. 1994).

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* at 521.

¹⁶⁷ *Id.*

¹⁶⁸ See *supra* text accompanying note 146.

¹⁶⁹ *Peloza*, 37 F.3d at 520.

effect on American society. Even the most zealous advocate of academic freedom would have to concede that a teacher may personally disagree with this assertion and may be free to present views critical of labor unions. However, he cannot claim a First Amendment right not to teach something that is prescribed in the curriculum as a valid topic for public school education.

Unfortunately, the Ninth Circuit did not rest its opinion on this distinction. It quoted the district court's findings that evolution "is an established scientific theory which is used as the basis for many areas of science. As scientific methods advance and become more accurate, the scientific community will revise the accepted theory to a more accurate explanation of life's origins."¹⁷⁰ This quotation suggests that Pelosa was wrong to refuse to teach evolution, not because it was a valid topic for discussion but because he had no basis for dissenting from it. If academic freedom is to be meaningful, it must include the teacher's right to hold and express views that are contrary to the prevailing orthodoxy.¹⁷¹ A teacher who is disciplined for expressing views falling within a protected First Amendment right to academic freedom is entitled to judicial redress.¹⁷²

B. The Wrong Approach Again: Usurping Curricular Choice

A second approach that is doomed to failure is for the teacher to attempt to substitute judgment about the curriculum, rather than how the curriculum is presented. In *Boring v. Buncombe County Board of Education*¹⁷³ the plaintiff, Margaret Boring, was a high school drama teacher who was involuntarily transferred based on her failure to comply with the district's "controversial materials policy."¹⁷⁴ She had chosen a play entitled "Independence," which, as she claimed in her complaint,

¹⁷⁰ *Id.* at 521-22.

¹⁷¹ As the Supreme Court has observed,

Our Nation is deeply committed to safeguarding academic freedom, which is of transcendent value to all of us and not merely to the teachers concerned. That freedom is therefore a special concern of the First Amendment, which does not tolerate laws that cast a pall of orthodoxy over the classroom.

Keyishian v. Bd. of Regents of Univ. of New York, 385 U.S. 589, 603 (1967); see also *Bd. of Educ., Island Trees Union Free Sch. Dist. v. Pico*, 457 U.S. 853, 870-71 (1982) (denying school board the right to remove books from the library simply because they wanted to deny access to ideas with which they disagreed).

¹⁷² *Watson v. Eagle County Sch. Dist.*, 797 P.2d 768 (Colo. App. 1990) (holding that trial court erroneously dismissed claim of non-tenured teacher, whose contract allegedly was not renewed in retaliation for critical comments made in a student newspaper).

¹⁷³ 136 F.3d 364 (4th Cir. 1998).

¹⁷⁴ See generally Kara Lynn Grice, *Striking an Unequal Balance: The Fourth Circuit Holds That Public School Teachers Do Not Have First Amendment Rights to Set Curricula in Boring v. Buncombe County Board of Education*, 77 N.C. L. REV. 1960 (1999).

“powerfully depicts the dynamics within a dysfunctional, single-parent family—a divorced mother and three daughters; one a lesbian, another pregnant with an illegitimate child.”¹⁷⁵ Boring claimed that the school district’s decision to transfer her violated her First Amendment rights, but the school district countered that it was exercising legitimate curricular control by disapproving of the choice of the play as suitable material for the students.¹⁷⁶ The district court dismissed the complaint, and the Fourth Circuit affirmed, finding that the choice of the play fell within the realm of choosing curriculum, which the school administrators could legitimately control.¹⁷⁷ The Fourth Circuit stated that

[s]omeone must fix the curriculum of any school, public or private. In the case of a public school, in our opinion, it is far better public policy, absent a valid statutory directive on the subject, that the makeup of the curriculum be entrusted to the local school authorities who are in some sense responsible, rather than to the teachers, who would be responsible only to the judges, had they a First Amendment right to participate in the makeup of the curriculum.¹⁷⁸

C. The Right Approach: Teaching the Controversy

If a teacher cannot refuse to teach a particular point of view, and if the teacher also has only delegated authority over the selection of the curriculum, then what freedom does the teacher have? The best case to be made for a teacher’s academic freedom is where the teacher is addressing a subject that is clearly within the topics assigned for coverage in that class. I have argued elsewhere¹⁷⁹ that a teacher is on solid ground where he or she is expected to teach the origins question and does so by treating it as a scientific controversy, presenting students with an accurate description of the evidence and scientific opinion favoring as well as opposing Darwin’s theory of natural selection.¹⁸⁰ There are compelling arguments to be made for the academic freedom of teachers who wish to exercise their freedom in this way.

¹⁷⁵ 136 F.3d at 366.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 371.

¹⁷⁹ See generally DeWolf et al., *supra* note 5.

¹⁸⁰ See also David K. DeWolf et al., TEACHING THE CONTROVERSY: DARWINISM, DESIGN AND THE PUBLIC SCHOOL SCIENCE CURRICULUM (1999), available at <http://law.gonzaga.edu/people/dewolf/fte2.htm>.

1. The Teacher's Right To Correct Misinformation

The teacher's First Amendment claims are most compelling where the teacher is acting to correct misinformation that is contained in a textbook or other curricular materials. While the teacher cannot refuse to present a point of view with which he or she disagrees,¹⁸¹ the teacher cannot be forced in effect to express agreement with a proposition that he or she believes to be untrue. If a public school student cannot be forced to recite the flag salute,¹⁸² a public school biology teacher cannot be forced to acknowledge that evolution is a fact. The *Peloza* case should not be read to suggest that teachers may not dissent from the theory of evolution but that students are entitled to be taught *about* the theory of evolution, whether an individual teacher finds it persuasive or not.

The evidence is growing that most high school biology textbooks contain serious errors in presenting the case for Darwinism. A book recently published by Jonathan Wells describes the "icons" that are usually taught as evidence of evolution: peppered moths, Haeckel's embryos, and so on.¹⁸³ These "icons" linger in the popular imagination but turn out to be unreliable to the point of being fraudulent.¹⁸⁴ A biology teacher should enjoy academic freedom to call this research to the students' attention. Again, the teacher has no right to substitute a different curriculum for the one prescribed by the school board or by his or her superiors, but there is an important distinction between the curriculum and a viewpoint about the curriculum. The school board or the school administration can control the former, but they cannot dictate the latter.

2. The Teacher's Right To Offer Additional Relevant Information

The teacher still enjoys some academic freedom to augment the existing curricular material with relevant information. However, there is a limit to how far the teacher can go in adding new material before it results in a curricular change. As bad as high school biology textbooks may be in teaching the origins controversy, they provide a relatively stable path for the teacher to follow in covering the topic within the time allowed. While the Supreme Court in *Edwards* takes for granted that a teacher could "supplant the present science curriculum with the

¹⁸¹ *Peloza*, 37 F.3d at 522.

¹⁸² See *Barnette*, 319 U.S. at 642.

¹⁸³ See JONATHAN WELLS, *ICONS OF EVOLUTION* (2000); see also www.iconsofevolution.com. Wells holds a Ph.D. in embryology from the University of California at Berkeley.

¹⁸⁴ *Id.* (As Wells's subtitle expresses it, "Science or Myth? Why much of what we teach about evolution is wrong.").

presentation of theories, besides evolution, about the origin of life,"¹⁸⁵ this right in practice would need to be balanced with the need to fulfill the curricular expectations for coverage in other areas. For example, a biology teacher might be intrigued with the "Cambrian explosion,"¹⁸⁶ which contradicts Darwinist expectations that new phyla or body plans will develop over extended periods of time.¹⁸⁷ Such information might be directly relevant to the question of whether Darwinism provides a satisfactory answer to the question of how the new information required to assemble complex new body plans could have been generated by a process of random mutation and natural selection. However, a teacher's choice in such an area would not be completely free of administrative review. If a teacher spent three months on a topic that is normally accorded two days' coverage, the addition of new material could effect a curricular change. In other words, practical considerations limit the teacher's academic freedom to insure that the curricular goals have not been replaced by goals of the teacher's own choosing.

It should be emphasized that the teacher's choice of information that is directly contrary to Darwinian theory is not by itself objectionable. In fact, it is not part of the curriculum to insure that students accept or believe a particular theory. Thus, the presentation of evidence that leads students to question Darwinism as a theory is not a ground for claiming that the curriculum is being altered, as long as the students are achieving the goal of *understanding* Darwinism. The Supreme Court has been emphatic in noting that in public schools, the suppression of ideas based upon a disagreement with the ideas themselves is a violation of the First Amendment.¹⁸⁸ Rejecting a claim by a school board that it had the right to remove books from the school library based upon their offensive character, the Court stated that the

[p]etitioners [the school board] rightly possess significant discretion to determine the content of their school libraries. But that discretion may not be exercised in a narrowly partisan or political manner. If a Democratic school board, motivated by party affiliation, ordered the removal of all books written by or in favor of Republicans, few would doubt that the order violated the constitutional rights of the students denied access to those books. The same conclusion would surely apply if an all-white school board, motivated by racial animus, decided to remove all books authored by blacks or advocating racial equality and integration. Our Constitution does not permit the official suppression of ideas. Thus whether petitioners' removal of books from their school libraries denied respondents their First Amendment rights depends

¹⁸⁵ *Edwards*, 482 U.S. at 587, see *supra* text accompanying note 160.

¹⁸⁶ J. Madeleine Nash, *When Life Exploded*, TIME, Dec. 4, 1995, at 66, available at 1995 WL 9022239.

¹⁸⁷ See generally DeWolf et al. *supra* note 5, at 64.

¹⁸⁸ *Pico v. United States*, 457 U.S. 853 (1982).

upon the motivation behind petitioners' actions. If petitioners intended by their removal decision to deny respondents access to ideas with which petitioners disagreed, and if this intent was the decisive factor in [the school board's] decision, then petitioners have exercised their discretion in violation of the Constitution. To permit such intentions to control official actions would be to encourage the precise sort of officially prescribed orthodoxy unequivocally condemned in *Barnette*.¹⁸⁹

3. The Presentation of Theories Competing with Darwinism

The most controversial case would be a teacher's proposal to teach theories that directly compete with Darwinism. Here even more delicate balancing is necessary. As noted above, Darwinists attempt to explain the appearance of design through purely naturalistic forces.¹⁹⁰ If students are free to study the evidence suggesting that the Darwinist case is unpersuasive, they should be free to entertain and be told about competing scientific theories that support an inference of actual design.¹⁹¹ On the other hand, the inference of an actual designer as the source of complexity and the appearance of design in living things could easily lead a student to connect that inference to existing religious beliefs that include a supernatural Creator. The potential for the class to generate debates about religious or metaphysical beliefs would naturally be a topic of concern for school administrators who would like the biology class to focus on mastering scientific concepts.

The likelihood that students will be led to draw metaphysical implications from study of particular scientific materials does not by itself render this study outside the proper realm of science. After all, one of the basic theories of cosmology today is the theory that an event known as the "Big Bang" brought into being time, space, matter and energy, and that whatever "caused" the Big Bang is not something capable of examination through normal laws of cause and effect.¹⁹² If many physicists believe that this theory is the best explanation for the cosmological phenomena we now observe, should physics teachers hesitate to discuss it because it might lead some students to point to the metaphysical implications of such an event?

Moreover, a cursory examination of most high school biology textbooks will show that there is no shortage of efforts to make biology "relevant" to issues of ethics, environmental policy, and politics.¹⁹³ Thus,

¹⁸⁹ *Id.* at 870-71.

¹⁹⁰ See DAWKINS, *supra* note 152, at 1.

¹⁹¹ See WILLIAM A. DEMBSKI, *THE DESIGN INFERENCE passim* (1998).

¹⁹² *On Beginnings*, 23 OKLA. CITY U. L. REV. 787, 816 (1998).

¹⁹³ KENNETH MILLER & JOSEPH LEVINE, *BIOLOGY 1077* (1998). The following quotation is found in a sidebar entitled "From the Authors":

it is hardly a valid objection to the consideration of alternate theories about biological origins that students might see the connection between biology and other questions important to them. Nonetheless, a sound approach to this area would discourage students from extended discussions of metaphysics or politics that would not help to illuminate the central scientific questions.

V. CONCLUSION

Edwards v. Aguillard created more questions about academic freedom than it answered. While affirming the value of academic freedom, it treated the legislature's attempt to promote academic freedom with a puzzling inconsistency. Subsequent case law has neither repudiated nor explained the Supreme Court's approach to academic freedom. Relying on their right to resist attempts to indoctrinate, rather than educate, and mindful of their responsibility to consider scientific issues on the basis of evidence, public school biology teachers should feel confident that if they "teach the controversy" about biological origins they will ultimately succeed.

My auto insurance bill arrived last week, and it made me angry—I resented having to pay so much. I also resented the fact that I am legally required to pay for auto insurance. But I got over it, and I sent off the necessary check. Why am I mentioning insurance in the ecology unit? Because life is full of surprises, pleasant and unpleasant. And, in the face of surprises, it is good to have insurance. Each of us makes decisions about "insurance" all the time. Looking at a cloudy sky, you wonder whether the risk of getting wet is worth the bother of carrying an umbrella. More serious kinds of insurance protect us against the cost of accidents or illness. All forms of insurance cost money that we could use to buy other things that we need or want, and there is no way to predict the future. So buying insurance can feel like betting against yourself, taking odds that you will get into an accident or get sick. And some kinds of insurance, such as car insurance, are required by law to protect everyone. Now, let's come back to ecology. Laws that safeguard the environment are like required insurance policies that protect us against ecological risks such as unsafe drinking water, polluted air, or human-caused changes in climate. Like auto insurance, these laws require us to spend money that we would rather use for other things. But that money is invested in maintaining the health of the biological and geological systems that keep our planet—including humans—alive.

As this unit has shown, there is a great deal we do not yet know about [our] complex ecological system less about the effects that an activity may have on them. As a father, I am more concerned about global warming than I am about whether a driver is going to jump a red light and dent my fender. So, I support laws that protect the environment. And I will pay my part of our global ecological insurance policy. When your turn comes, will you?

Id.