# The Impact of *Edwards v. Aguillard* on Science Education in Louisiana Public Schools

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Abstract

The landmark Louisiana case *Edwards v. Aguillard* ushered in a new era of legislation in which certain ideas are discriminated against because of their religious basis. Due to the Court's misinterpretation of evidence and employment of a faulty test for a secular purpose, the Court is responsible for disastrous and far-reaching implications. This thesis will examine how the 1987 Supreme Court case *Aguillard* shifted American science education away from the exploration of multiple competing theories of man's origins in the classroom. Although America was founded on principles such as freedom of religion and thought which should be protected, the *Aguillard* decision led to the secularization of science education. Had the Court utilized the principles articulated in Scalia's dissent, American schoolchildren would receive a more complete and balanced science education today.

The Impact of *Edwards v. Aguillard* on Science Education in Louisiana Public Schools

The United States of America has long been a bastion of religious liberty and Christian virtue. A deeply ingrained cultural leaning towards Judeo-Christian values set a framework for nearly every aspect of American life. However, a gradual secularization of these schools has resulted in a dramatically different learning climate in the 21st century. As the secularization of America has become a national phenomenon, it is important to look to the roots of this trend in the education system. This thesis will explore the foundation laid by *Edwards v. Aguillard* which began the gradual secularization of education in the nation. The court cases which removed creationism from curriculum provide a basis for constitutional secularization for a variety of fields, and as such, are essential in understanding the modern interpretation of the American Constitution.

## *Edwards v. Aguillard*

A variety of factors contributed to the restructuring of American science education advocated for in *Edwards v. Aguillard.* A strong Judeo-Christian influence pervaded the United States since its founding, creating an education system which reflected the beliefs of the Protestant Church. In the now famous Scopes Monkey Trial of 1927, these ideas were challenged. In 1925, John Scopes was arrested in Tennessee on account of his teaching evolution in his public school class. Edward J. Larson, an esteemed scholar of law and professor at Pepperdine University provides insight into this matter:

> Perhaps no American judicial decision has evoked more criticism than Scopes' conviction sixty-one years ago. Even the 1927 Tennessee Supreme Court decision upholding the antievolution statute under which Scopes was convicted (while overturning the conviction on a technicality) urged prosecutors to conserve "the peace and dignity of the state" by not enforcing that law.[1]

[1] Edward J. Larson, "Textbooks, Judges, and Science," *Cumberland Law Review* 17, no. 1 (1986-1987): 124.

This case became internationally recognized and started an ardent debate over the constitutionality of creation science education in American public schools. In fact, "expansion of public secondary education in the 1920s coincided with the anti-evolution crusade in state legislatures because evolution was carried to an increasing number of America's youth."[2] The undercurrent of distaste with religiously-based science education had been brewing for a while, and legislation was just beginning to catch up with the spirit of the age. However, it wasn't until 1967 that Tennessee ruled that evolution and creationism would be presented to students equally in what is called "balanced treatment" education.[3]

A pattern began to emerge in a vast majority of states. In 1981, Louisiana enacted the Balanced Treatment for Creation-Science and Evolution-Science Act to preserve academic freedom.[4] The act "required science teachers either to give equal time to both theories or to teach neither one. The Act's purpose was to expose students to more than one theory concerning the origins of life and also to avoid their indoctrination."[5] Furthermore, the Act "did not require any instruction in the subject of origins, but did require that if either scientific model was taught, the other must be taught as theory rather than fact. Discrimination was prohibited against students who accepted or rejected either model, and against teachers who taught creation-science."[6]

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[2] V. Kay Curtis, "Religion: Church and State Relations: Balanced Treatment of Theories of Origins—Edwards v. Aguillard," *Oklahoma Law Review* 41, no. 4 (Winter 1988): 741.

[3] Randy Moore, "Science at Scopes' School Today: Creationism 74 Years After the "Monkey Trial"—A Verdict," *Journal of College Science Teaching* 28, no. 4 (1999): 229. http://www.jstor.org/stable/42990670.

[4] Paul F. Blewett,. "Edwards v. Aguillard: The Supreme Court's Deconstruction of Louisiana's Creationism Statute," *Notre Dame Journal of Law, Ethics & Public Policy* 3, no. 4 (Summer 1988): 664.

[5] Ibid.

[6] Ibid., 740.

The motivation for this legislation was uniquely personal. Louisiana State Senator William Keith's young son had been asked by a teacher to "recant his belief that God created the world and man and to profess instead that life resulted from evolution."[7] Keith found this alarming and sought to create an educational emphasis on the freedom of ideas that characterized the founding of the United States.

The Act was met with intense backlash from all sides declaring it unconstitutional. The United States District Court denied the Act calling it "an establishment of religion on the motion of summary judgment."[8] In *Edwards v. Aguillard*, the United States Supreme Court moved to decide whether the Louisiana Balanced Treatment Act was indeed unconstitutional as a result of violating the establishment clause of the First Amendment. The Establishment Clause relates the following, "called establishment-of-religion clause, clause in the First Amendment to the U.S. Constitution forbidding Congress from establishing a state religion. It prevents the passage of any law that gives preference to or forces belief in any one religion. It is paired with a clause that prohibits limiting the free expression of religion."[9]

In order to understand the impact and subsequent effect *Edwards* actually had, one must first understand the Supreme Court case which decided such a monumental decision for America's schoolchildren. Argued at the United States Supreme Court on December 10, 1986, *Edwards* was impressive on all sides. The syllabus of the case set out a summary of the arguments both for and against Louisiana's Balanced Treatment for Creation-Science and Evolution-Science in the Public School Instruction Act.

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[7] Curtis, "Religion: Church and State Relations," 740.

[8] Moore, "Science at Scopes' School Today," 664.

[9] "Establishment Clause," Legal Information Institute. Accessed September 29, 2019.

Firstly, the expressed intent of the Act was explained; it effectively prohibited the teaching of evolution in Louisiana public schools unless accompanied by creation science instruction. This "balanced treatment" was defined as "providing whatever information and instruction in both creation and evolution models the classroom teacher determines is necessary and appropriate to provide insight into both theories in view of the textbooks and other instructional materials available for use in his classroom."[10] The Act defined both of these ideas as scientific theories or "the scientific evidences for [creation or evolution] and inferences from those scientific evidences."[11] The Act's constitutionality was challenged in Federal District Court by a group of appellees including parents, teachers, and religious leaders from Louisiana. The District Court held that the Act did indeed violate the Establishment Clause of the First Amendment due to its lack of a secular purpose. The subsequent Court of Appeals affirmed this decision, holding that the Act's purpose of protecting the academic freedom of students was not fulfilled. As stated, "It does not enhance the freedom of teachers to teach what they choose, and fails to further the goal of 'teaching all of the evidence.'"[12] The Act's protection of creation scientists in both "limiting membership on the resource services panel to 'creation scientists,' and by forbidding school boards to discriminate against anyone who 'chooses to be a creation scientist' or to teach creation science, while failing to protect those who choose to teach other theories," was condemned.[13]

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[10] Louisiana RS 17:286.1, https://casetext.com/statute/louisiana-revised-statutes/revised-statutes/title-17-education/chapter-1-general-school-law/part-iii-public-schools-and-school-children/subpart-d-2-balanced-treatment-for-creation-science-and-evolution-science-in-public-school-instruction

[11] *Edwards v. Aguillard*, 482 U.S. 578 (1986).

[12] Ibid.

[13] Ibid.

Interestingly, the Act itself states:

> Each city and parish school board shall develop and provide to each public school classroom teacher in the system a curriculum guide on presentation of creation-science.The governor shall designate seven creation-scientists who shall provide resource services in the development of curriculum guides to any city or parish school board upon request. Each such creation-scientist shall be designated from among the full-time faculty members teaching in any college and university in Louisiana. These creation-scientists shall serve at the pleasure of the governor and without compensation.[14]

The Court's interpretation of this clause was heavily influenced by the previous ruling. It was further argued that in supporting creationism and therefore the implied existence of a supernatural being, the Act both supported and endorsed religion and therefore violated the First Amendment to the U.S. Constitution. Even though the appellants had, "failed to raise a genuine issue of material fact," the Court granted summary judgment.[15]

Justice Brennan delivered the opinion of the Court. Brennan cited *Epperson v. Arkansas* stating, "The court held that there can be no valid secular reason for prohibiting the teaching of evolution, a theory historically opposed by some religious denominations. The court further concluded that the teaching of 'creation-science' and 'creationism,' as contemplated by the statute, involves teaching 'tailored to the principles' of a particular religious sect or group of sects."[16] He explained that the District Court held that the Creationism Act had violated the Establishment Clause as a result of both the prohibition of teaching evolution and the act of forcing teachers to teach creationism, stating that the purpose for doing so was to promote a religious doctrine. The Court of Appeals found that "the Louisiana Legislature's actual intent was 'to discredit evolution by counterbalancing its teaching at every turn with the teaching of

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[14] Louisiana RS 17:286.1

[15] *Edwards v. Aguillard.*

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

creationism, a religious belief.'"[17] Brennan cited the Establishment Clause as a protection against the establishment of any form of religion. The Court used the three-pronged Lemon Test for constitutionality to determine whether the Act violated the Clause. The test operated on three points, "First, the legislature must have adopted the law with a secular purpose. Second, the statute's principal or primary effect must be one that neither advances nor inhibits religion. Third, the statute must not result in an excessive entanglement of government with religion."[18] Brennan stated that the Act violated all of the prongs. However, "At the same time . . . we have necessarily recognized that the discretion of the States and local school boards in matters of education must be exercised in a manner that comports with the transcendent imperatives of the First Amendment."[19] Brennan asserted that the school board had taken advantage of the parents of public school children who were required to attend school, but not for the purpose of religious indoctrination which may offend personal family religious attitudes and beliefs. Brennan cited judicial precedent as proof of this claim arguing, "the public school is at once the symbol of our democracy and the most pervasive means for promoting our common destiny. In no activity of the State is it more vital to keep out divisive forces than in its schools."[20]

Brennan then listed the many cases in which the Court had been obliged to defend this principle. These statutes which "advance religion"[21] include a "school district's use of religious school teachers in public schools,"[22] an "Alabama statute authorizing a moment of silence for

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[17] *Edwards v. Aguillard.*

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

[19] *Board of Education, Island Trees Union Free School Dist. No. 26 v. Pico*, 457 U.S. 853 (1982).

[20] *Illinois ex rel. McCollum v. Board of Education*, 333 U.S. 203 (1948).

[21] Ibid.

[22] *Grand Rapids School Dist. v. Ball,* 473 U.S. 373 (1985).

school prayer,"[23] "posting a copy of the Ten Commandments on public classroom wall,"[24] "statute forbidding the teaching of evolution,"[25] "daily reading of the Bible,"[26] and "recitation of 'denominationally neutral' prayer."[27] Each of these cases violated the Lemon Test due to a religious purpose, whether obvious or underlying. Many were dismissed solely on the basis of the first prong, and *Edwards* falls under that same category due to what Brennan viewed as a clear religious purpose. The goal of the Act is to protect academic freedom, as stated "This Subpart is enacted for the purposes of protecting academic freedom."[28] However, the State's definition of such is not in line with the Court's interpretation. Brennan commented in his statement:

> This phrase might, in common parlance, be understood as referring to enhancing the freedom of teachers to teach what they will. The Court of Appeals, however, correctly concluded that the Act was not designed to further that goal…. Even if 'academic freedom' is read to mean 'teaching all of the evidence' with respect to the origin of human beings, the Act does not further this purpose. The goal of providing a more comprehensive science curriculum is not furthered either by outlawing the teaching of evolution or by requiring the teaching of creation science.[29]

Brennan claimed that the State's expression of the secular purpose of academic freedom was rooted in a false idea. He referred to precedent again to punctuate his argument; "It is not a trivial matter, however, to require that the legislature manifest a secular purpose and omit all sectarian

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[23] *Wallace v. Jaffree*, 472 U.S. 38 (1985).

[24] *Stone v. Graham*, 449 U.S. 39 (1980).

[25] *Epperson v. Arkansas.*

[26] *Abington School Dist. v. Schempp*, 374 U.S. 203 (1963).

[27] *Engel v. Vitale*, 370 U.S. 421 (1962).

[28] Louisiana RS 17:286.1

[29] *Edwards v. Aguillard*.

endorsements from its laws. That requirement is precisely tailored to the Establishment Clause purpose of ensuring that the Government not intentionally endorse religion or a religious practice."[30]

According to Brennan, the intent of the Act's sponsor, Senator Keith, was to curb the impression of science which students would receive in schools. In other words, his desire was to limit required curriculum to fit his religious ideals. Keith's expressed personal desire to take origin theory out of schools altogether was said to "undermine the provision of a comprehensive science education."[31] Furthermore, the Act was said to curtail the freedom of teachers as it did not add to the freedom they had enjoyed previously. The President of the Louisiana Science Teachers Association claimed, "Any scientific concept that's based on established fact can be included in our curriculum already, and no legislation allowing this is necessary."[32] This statement discredits the stated purpose of the Act in making it unnecessary. Indeed, that basic fairness the Act attempted was also maligned. The Teacher's Association argued:

> 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.[33]

The Act claimed to encourage freedom, yet Brennan explains that in doing so it removed teacher's ability to teach various origin theories in replacing variety with evolution and creation.

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[30] *Wallace v. Jaffree*.

[31] *Edwards v. Aguillard*.

[32] Ibid.

[33] Ibid.

Brennan also cites *Epperson* as similar, stating, "Although the Arkansas anti-evolution law did not explicitly state its predominate religious purpose, the Court could not ignore that '[t]he statute was a product of the upsurge of 'fundamentalist religious fervor' that has long viewed this particular scientific theory as contradicting the literal interpretation of the Bible."[34] The Court therefore determined that "there can be no doubt that the motivation for the [Arkansas] law was the same [as other anti-evolution statutes]: to suppress the teaching of a theory which, it was thought, 'denied' the divine creation of man."[35]

The actual language of the Act seems to directly contradict these claims as it very clearly states a relative indifference to the presence of origin of man theory education as stated. The language reads:

> This Subpart does not require any instruction in the subject of origins but simply permits instruction in both scientific models (of evolution-science and creation-science) if public schools choose to teach either. This Subpart does not require each individual textbook or library book to give balanced treatment to the models of evolution-science and creation-science; it does not require any school books to be discarded. This Subpart does not require each individual classroom lecture in a course to give such balanced treatment but simply permits the lectures as a whole to give balanced treatment; it permits some lectures to present evolution-science and other lectures to present creation-science.[36]

Contrary to the Act's stated intent, however, the Court found that the motivation of the Act was to silence scientific theories which were distasteful as a result of their nature in opposing religious dogma. Indeed, Senator Keith's scientific evidence in Court came from leading creation scientist Edward Boudreaux who claimed that, "the theory of creation science included belief in

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[34] *Epperson v. Arkansas.*

[35] *Edwards v. Aguillard.*

[36] Louisiana RS 17:286.1

the existence of a supernatural creator."[37] Senator Keith's ardent support of his own religious views furthered the image of a religiously motivated Act "The state senator repeatedly stated that scientific evidence supporting his religious views should be included in the public school curriculum to redress the fact that the theory of evolution incidentally coincided with what he characterized as religious beliefs antithetical to his own."[38] The Court viewed these evidences as the reason why the Act was inherently religious and therefore strictly unconstitutional. In addition, Brennan explained that the Act was preferential to one particular religious group in its similarity to Judeo-Christian themes and values. Brennan validated the importance of religion in American history and education as a benchmark of the foundation upon which the nation was built. In the *Stone* case, the Court acknowledged that the Ten Commandments could be useful and informative in school instruction yet could not be displayed as a form of religious affiliation.[39] Brennan ultimately affirmed the judgment of the Court of Appeals, 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. The Act violates the Establishment Clause of the First Amendment because it seeks to employ the symbolic and financial support of government to achieve a religious purpose.[40]

Justices Powell and O'Connor concurred with Brennan emphasizing that nothing in the Court's decision disagreed with the legal tradition in which the school board was allowed certain freedom to define barriers. The Justices argued that the Act did not define the terms evolution and creation "A fundamental canon of statutory construction is that, unless otherwise defined,

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[37] *Edwards v. Aguillard.*

[38] Ibid.

[39] *Stone v. Graham.*

[40] Ibid.

words will be interpreted as taking their ordinary, contemporary, common meaning."[41] The Court defined the "doctrine or theory of creation" as "holding that matter, the various forms of life, and the world were created by a transcendent God out of nothing."[42] In contrast, the definition of evolution is "the theory that the various types of animals and plants have their origin in other preexisting types, the distinguishable differences being due to modifications in successive generations."[43] In the definitions themselves there is the inherent implication of a difference based on religious belief. The justices relied on precedent to explain "concepts concerning God or a supreme being of some sort are manifestly religious. . . . These concepts do not shed that religiosity merely because they are presented as a philosophy or as a science."[44]

In reviewing the legislative history of the Act, the justices commented on the similarity of the scientific creationism narrative and that of the book of Genesis in the Bible. Dr. Edward Boudreaux, the principal creation scientist to testify, commented that the vast majority of the leading scientific proponents of creationism were affiliated either with the Institute for Creation Research or the Creation Research Society. The Court shared the Institute's self-stated goals maintaining, "The Institute was established to address the urgent need for our nation to return to belief in a personal, omnipotent Creator, who has a purpose for His creation and to whom all people must eventually give account."[45] The concurring opinion emphasized the importance of

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[41] *Perrin v. United States*., 444 U.S. 37 (1979).

[42] *Edwards v. Aguillard.*

[43] Ibid.

[44] *Malnak v. Yogi*., 592 F.2d 197 (1979).

[45] Ibid.

the nation's religious history and its value in education. However, Justice Powell concluded by saying:

> In sum, I find that the language and the legislative history of the Balanced Treatment Act unquestionably demonstrate that its purpose is to advance a particular religious belief. Although the discretion of state and local authorities over public school curricula is broad, the First Amendment does not permit the State to require that teaching and learning must be tailored to the principles or prohibitions of any religious sect or dogma.[46]

Justice White followed Powell by concurring that the Act violated the Establishment Clause of the U.S. Constitution. He did comment that he believed he would have voted differently if present during the inception of the Act in the Louisiana court. Yet, White maintained that there was nothing "so plainly wrong that they should be reversed."[47] Taking a more moderate form of concurrence, White continually affirmed his belief that if re-argued, the case may have different results. He concluded:

> If the Court of Appeals construction is to be accepted, so is its conclusion that, under our prior cases, the Balanced Treatment Act is unconstitutional because its primary purpose is to further a religious belief by imposing certain requirements on the school curriculum. Unless, therefore, we are to reconsider the Court's decisions interpreting the Establishment Clause, I agree that the judgment of the Court of Appeals must be affirmed.[48]

In the face of aggressive arguments against the Act, Justice Antonin Scalia masterfully crafted a dissent based on both precedent and constitutionality. Scalia began by pointing out that as the Court had not interpreted the Act and as the State had not attempted to implement it, there was no way to define the terms of the Act or know its meaning. Scalia deferred to the appellants' definition of the meaning of the Act which did not include religious motivation as it did not

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[46] *Edwards v. Aguillard.*

[47] Ibid.

[48] Ibid.

require the presence of religious doctrine. On these terms, Scalia held that the Act did satisfy the first prong of the Lemon Test as the actual motives of those responsible for the Act were to promote academic freedom; a secular purpose. Scalia mentioned that the Lemon Test eliminated legislation that seeks to encourage and promote religion, not the legislation which is based on religious values. Justice Scalia argued:

> Our cases in no way imply that the Establishment Clause forbids legislators merely to act upon their religious convictions. We surely would not strike down a law providing money to feed the hungry or shelter the homeless if it could be demonstrated that, but for the religious beliefs of the legislators, the funds would not have been approved. Also, political activism by the religiously motivated is part of our heritage…. Today's religious activism may give us the Balanced Treatment Act, but yesterday's resulted in the abolition of slavery, and tomorrow's may bring relief for famine victims.[49]

This distinction is a powerful one. In no subtle terms, Scalia reminded the Court of the potential reverberations of such a decision against the Act. In addition, he illuminated the Court's previous attempts of assigning a secular purpose to governmental action which was far more likely to advance religion. He mentioned "tax deduction for expenses of religious education,"[50] "aid to religious schools,"[51] and "textbook loans to students in religious schools,"[52] among several other similar decisions. Scalia mentioned the importance of the government's role in advancing religion in some cases. For example, "[A] State which discovers that its employees are inhibiting religion must take steps to prevent them from doing so, even though its purpose would clearly be to advance religion."[53] States also must occasionally provide protection for

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[49] *Edwards v. Aguillard*.

[50] *Mueller v. Allen*, 463 U.S. 388 (1983).

[51] *Wolman v. Walters*, 433 U.S. 229 (1977).

[52] *Board of Education v. Allen*, 392 U.S. 236 (1968).

[53] *Walz v. Tax Comm'n of the City of New York*, 397 U.S. 664 (1970).

individual religion through exemptions and the like.[54] Scalia then defends this right of government to protect religion:

> Thus, few would contend that Title VII of the Civil Rights Act of 1964, which both forbids religious discrimination by private sector employers, and requires them reasonably to accommodate the religious practices of their employees, violates the Establishment Clause, even though its 'purpose' is, of course, to advance religion, and even though it is almost certainly not required by the Free Exercise Clause.[55]

Considering the implied purpose of government in cases such as *Edwards*, Scalia remarked upon the lack of engagement to truly understand the Act on the part of the legislature. Indeed, the recorded legislative history of the case is very sparse. Scalia assured the Court that claims of the Act being a vessel of religious fervor were ungrounded, "It is important to note that the Balanced Treatment Act did not fly through the Louisiana Legislature on wings of fundamentalist religious fervor — which would be unlikely, in any event, since only a small minority of the State's citizens belong to fundamentalist religious denominations."[56] Scalia was in reluctance to overturn the will of the people with his interpretation. He stated "Striking down a law approved by the democratically elected representatives of the people is no minor matter."[57] In addition, Scalia emphasized Senator Keith's insistence that the committees which reviewed the bill keep an open mind and consider all possibilities and implications of the Act, leaving preconceived notions at the door.

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[54] *Hobbie v. Unemployment Appeals Comm'n of Florida*, 480 U.S. 136 (1987).

[55] *Edwards v. Aguillard.*

[56] Ibid.

[57] Ibid.

His manner was far from that of a man trying to indoctrinate or sway. One of Scalia's strongest arguments maintained the need for the Court to follow the Senator's advice and remove opinion from judgment. Scalia stated:

> I wish to make clear that I by no means intend to endorse its accuracy. But my views (and the views of this Court) about creation science and evolution are (or should be) beside the point. Our task is not to judge the debate about teaching the origins of life, but to ascertain what the members of the Louisiana Legislature believed. The vast majority of them voted to approve a bill which explicitly stated a secular purpose; what is crucial is not their wisdom in believing that purpose would be achieved by the bill, but their sincerity in believing it would be.[58]

Scalia then explained how the Act would benefit students. By presenting the students with the two foremost theories of origins, students are protected from indoctrination and the belief that evolution is the only explanation for the dawn of time. Furthermore, as the Court has deemed secular humanism a religion,[59] it is clear that eliminating creationism would advance a different religion. This is an equal violation of the Establishment Clause, if such a violation exists. The goal of the Senator was to prevent the censoring of student's textbooks, and the Act was created to eliminate that possibility.

The Court's denial of the Act's purpose was addressed by Scalia, who maintained, "The Court seeks to evade the force of this expression of purpose by stubbornly misinterpreting it, and then finding that the provisions of the Act do not advance that misinterpreted purpose, thereby showing it to be a sham."[60] Indeed, Scalia's defense of the Act's secular purpose is expansive. He explicitly defined the terms of the case to prove the Senator's goals while emphasizing the

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[58] *Edwards v. Aguillard.*

[59] *Torcaso v. Watkins,* 367 U.S. 488 (1961).

[60] Ibid.

benefits and potential of the proposed legislation. His dissent unearthed a tremendous amount of evidence which had not been mentioned in the trial previously. Scalia observed:

> The legislative history gives ample evidence of the sincerity of the Balanced Treatment Act's articulated purpose. Witness after witness urged the legislators to support the Act so that students would not be 'indoctrinated,' but would instead be free to decide for themselves, based upon a fair presentation of the scientific evidence, about the origin of life.[61]

In conclusion, Scalia called for change regarding the Court's interpretation of the Establishment Clause claiming that it "sacrifices clarity and predictability for flexibility."[62] Certainly, the scientific merit and proposed motivation for the Act are evidence of its importance in protecting students from indoctrination. Yet, the inherent bias and religious affiliation blocked the Act despite its benefits. Scalia highlights the major problem the Court faces in religious freedom legislation in the following statement:

> I think it time that we sacrifice some 'flexibility' for 'clarity and predictability.' Abandoning Lemon's purpose test — a test which exacerbates the tension between the Free Exercise and Establishment Clauses, has no basis in the language or history of the Amendment, and, as today's decision shows, has wonderfully flexible consequences — would be a good place to start.[63]

Critics of the Court's decision base their arguments on several key factors. Firstly, it should be noted that the concept of creationism as a scientific theory of origin is not distinctly Judeo-Christian and is in fact adopted by reputable scientists of all religious leanings.[64] Indeed, "nowhere does the Act speculate on the nature of the creator, and the legislative history only speculates that it is supernatural and intelligent."[65] Similarly, as Scalia argued, the Act states a

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[61] *Edwards v. Aguillard.*

[62] Ibid.

[63] Ibid.

[64] Blewett, "Edwards v. Aguillard," 683.

[65] Ibid.

secular purpose in multiple sections: "the legislative history contains several statements attesting to the Act's secular purpose as well as the scientific validity of the subject matter."[66] Paul F. Blewett, the president of Life Legal Defense Foundation stated:

> The *Edwards* Court said that the "goal of providing a more comprehensive science curriculum is not furthered either by outlawing the teaching of evolution or by requiring the teaching of creation science." The implication is that the Balanced Treatment Act does not mean what it says, but instead is an antievolution, procreation law. A fairer reading is that the Act promotes "truth in advertising," "equal access" and "free marketplace of ideas."[67]

This explains some of the issues with the Court's rulings in a very succinct way. The Court seemed to have a preconceived distaste for the Act which could not be changed or shifted based upon the language and summary of the Act's goals and tenets. The aforementioned law review went further to create a very intriguing picture of the implications of the Court's decision. In denying the continuance of freedom of ideas in the Louisiana science classroom, the Court missed an important moment to create legislation which supports the values of the Founders. In a classroom where creation science and evolution are presented in an equal and unbiased fashion, students are able to choose which theory is most plausible. Therefore, evolutionists have no reason to fear as students will inherently believe in the theories which hold the most scientific credibility. This method will weed out weak or disproved notions and allow students to exercise reason in selecting the most likely origin theories. Evolution theory will only be discriminated against if the evidence for creationism is stronger, and vice versa.[68] Nevertheless, the Court,

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[66] Blewett, "Edwards v. Aguillard," 684.

[67] Curtis, "Religion: Church and State Relations," 753.

[68] Ibid.

"operated under the assumptions that creationism was not science, and that the law was intended to advance religion by discrediting scientific data in violation of the Establishment Clause."[69]

## ***Edwards v. Aguillard*** **in Modern Louisiana**

Over thirty years ago, the Court came to a decision to take all education regarding creationism out of the Louisiana public school's science program. The result has been punctuated by debate and uncertainty, with both sides of the argument dissatisfied with the way science education has been reformed. For some, the decision was far too much; and for others, far too little. Regardless, the effect the ruling has had is profound.

Aguillard conducted a study in Louisiana ten years after the *Edwards* ruling and the results are indicative of themes which continue to today. Based on surveys sent out to hundreds of high school biology teachers across the state which yielded high return rates, Aguillard was able to make generalizations about the state post-*Edwards*. According to his findings, fifteen to twenty percent of these teachers felt that creationism was scientifically valid and acceptable in the classroom as a means of both scientific analysis and discussion. While not all of these teachers allocated instructional time to teaching creationism, the percentage that did was high enough to infer that creationism was still being taught in many science classrooms across the state.[70] One teacher was quoted saying, "I teach evolution because it is in the book and in the curriculum guide. As I am teaching evolution, I try to poke as many holes in it as I can. I think that evolution goes against everything we teach in biology."[71] This attitude was not uncommon

[69] Mary Catherine Hackney, "In This Apple for Teacher an Apple from Eve-Reanalyzing the Intelligent Design Debate from a Curricular Perspective," *North Carolina Law Review* 85, no. 1 (2006): 354.

[70] Donald Aguillard, "Evolution Education in Louisiana Public Schools: A Decade Following: Edwards v Aguillard," *The American Biology Teacher* 61, no. 3 (1999): 185.

[71] Ibid.

among teachers in Louisiana. Even so, the majority do teach evolution with statistics backing up the fact that post-*Edwards*, less and less time is allocated for alternate theories of origins. A survey of teachers revealed:

> Sixty-five percent of survey respondents allocated no instructional minutes to the teaching of creationism. Ten percent allocated fewer than 30 minutes to creationism, 15 percent allocated from 31 to 60 minutes of instruction, and 10 percent of respondents allocated more than 60 minutes of instructional time to creationism concepts. Approximately 5 percent of teachers statewide reported allocating more than 30 minutes of instruction time to creationism concepts.[72]

The results of the survey show that the *Edwards* ruling was widely effective in eliminating creationism from schools. In a state where creationism had been taught almost exclusively for many years, evolution was suddenly the preeminent voice in the classroom. Supporters of evolution were initially very pleased with the ruling: "This decision will rejuvenate a lesson to various groups that 'no group, no matter how large or small, may use the organs of government, of which the public schools are the most conspicuous and influential, to foist its religious beliefs on others.'"[73] Even so, creationism could not be silenced entirely as several teachers interviewed claimed to introduce students to a variety of theories regarding origin.[74] In fact, being a strong supporter of solely evolution-based science education, Aguillard thought that the case had not done enough to eliminate creationism from schools. He argued:

> In spite of the fact that *Science for All Americans* identified *evolution* as one of the six common themes across all the sciences, there is no pressure to regard evolutionary theory as a unifying theme of biology in classroom instruction. School administrators, science supervisors, local school boards, state departments of education, and federal agencies must articulate strong support for inclusion of evolutionary theory in biology instruction.[75]

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[72] Aguillard, "Evolution Education in Louisiana Public Schools," 188.

[73] Michael A. Charlot, "Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction: Aguillard v. Edwards," *Southern University Law Review* 13, no. 1 (1986-1987): 158.

[74] Ibid.

[75] Ibid., 185.

Looking at *Edwards* as a whole, one can see that it is very difficult to find any viewpoint that is completely satisfied with the results which has created an interesting tension surrounding the subject.

Perhaps one of the most pressing issues with the *Edwards* ruling is the precedent that it set for all cases to follow. In acknowledging evolution as the primary and encouraged theory of origin and denying creationism the same value due to its religious inception, scientific evidence has been undermined. Science has proven that creation has many merits, enough to call it a valid theory of origin. When religious connections or influence can delegitimize verifiable scientific theory there arises an opportunity to take similar measures with other school subjects. David S. Caudill, a professor of law at Washington and Lee University, stated:

> Teaching scientific evidence that is consistent with religious belief is not unconstitutional; therefore, the flaw in the Act is either the Creator *inference* or the legislature's religious purpose. The result of the latter conclusion is that scientific evidences that could have been taught before the Act was passed cannot be now because of the constitutionally flawed motives of the legislators.[76]

The arguments both for and against the original Act and the following ruling in *Edwards* are indeed substantial and compelling. Part of the reason this is so contested with so little clarity is in the nature of the subject. Origin theory cannot be proven either correct or incorrect. David Caudill maintains, "[T]urning to *Aguillard*, the brief concedes that while some scientific propositions are virtually unassailable (e.g., "the earth is not flat"), the origins controversy is not susceptible to settlement on empirical grounds."[77] Here lies the problem with dictating the margins of the in-class debate over any unproven scientific concept or theory.

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[76] David S. Caudill, "Will the Clock Strike Thirteen," *Cumberland Law Review* 17, no. 1 (1986-1987): 109.

[77] Ibid., 111.

Research conducted since the *Edwards* ruling has indicated that in light of the difficulties surrounding the apparent constitutionality of *Edwards*, legislators chose to follow the tides of public opinion.[78] This goes a long way in explaining why there has been little consensus since *Edwards*. Public opinion is sure to change, as people change and as cultural mores morph in general. Since *Edwards*, similar cases have taken place all over the United States, showing that law cannot keep up with these constantly changing moral imperatives of culture.

One of the most troublesome aspects of the case is the Court's use of the Lemon Test for constitutionality. While the goal of the test as a means of protection against the establishment of religion is worthy, the test has been historically unreliable. The test has been used to justify or validate various motivations with little consistency. In fact, the Court has shied away from the Lemon Test in recent years because

> [u]ltimately, excessive entanglement is in the eye of the beholder. Justices who favor separation can use the test to find a violation of the establishment clause, whereas supporters of accommodation could use the same test to uphold the practice or program in question. Indeed, critics of the Court's jurisprudence have argued that application has exhibited a great deal of inconsistency, which filters to the legislatures that pass such programs and the lower courts that have to evaluate them.[79]

As the very test which determined the Court's ruling is potentially unreliable and subject for concern, there is a great argument to be made for a retrial. Scalia himself criticized the efficacy of the test; he "doubt[ed] whether that 'purpose' requirement of *Lemon* is a proper interpretation of the Constitution; but even if it were, I could not agree with the Court's assessment that the requirement was not satisfied here."[80]When the methods the Court uses are shaky, the decisions

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[78] Caudill, "Will the Clock Strike Thirteen" 113.

[79] *The First Amendment Encyclopedia*, s.v. "Lemon Test," accessed October 2, 2019, https://mtsu.edu/first-amendment/article/834/lemon-test

[80] *Edwards v. Aguillard.*

made cannot be trusted to be in line with the values set forth in the Constitution. There is certainly verifiable cause for the Court to reexamine their decision regarding *Edwards*.

Like many cases before it, *Edwards* set a precedent. In 2005, *Kitzmiller v. Dover* defined a new era of educational restriction as it shut ID out of schools and revolutionized education in Pennsylvania. This case shows the far reaching effects of *Edwards* and illuminates the way the case helped to shift the larger American mindset. The case addressed the teaching of Intelligent Design (ID) in Pennsylvania public schools as a plausible origin theory.[81] Ultimately, the Court decided to eliminate ID as a topic of curriculum due largely to precedent set in *Edwards* as a part of three core arguments against ID.

The long-term effects of *Edwards* are still being seen today, as science education is a controversial subject in many respects. Today, evolution is a fixture in the culture of American science education. However, many groups still advocate vehemently for creationism and a growing culture of both home-schooling and private schooling speak to the fact that many parents are not satisfied with the current education model. Science is one of the subjects that elicits the most criticism and as such, is a large part of the shift to alternative forms of education. Indeed, the Dover case is a perfect example of the continuing disunity following *Edwards*, "the Discovery Institute believes that opponents to evolution have the upper hand in 'the court of public opinion.'...The inevitability of this culture war and the effectiveness of scientific engagement of religiously minded people were demonstrated by a split in the Dover community."[82]

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[81] Benjamin Michael Superfine, "The Evolving Role of the Courts in Educational Policy: The Tension between Judicial, Scientific, and Democratic Decision Making in Kitzmiller v. Dover," *American Educational Research Journal* 46, no. 4 (2009): 898.

[82] Brenda Lee, "Kitzmiller v. Dover Area School District: Teaching Intelligent Design in Public Schools," *Harvard Civil Rights-Civil Liberties Law Review* 41, no. 2 (2006): 590.

Cases such as *Dover* are only the beginning of an effort to bring varied theories of origin back into the classroom. The dynamic regarding science today is multifaceted. In American public school classrooms, evolution is stated as fact and questioned only in passing. Yet, creationism still holds a tremendous pull on the minds of the American people as seen in alternative schooling environments. Time will tell how far the reverberations of *Edwards* will be heard.

## Conclusion

There is no question that *Edwards* helped to define an era of American science education. While there is no easy solution to the debate that *Edwards* sought to answer, there is sufficient scientific evidence to support the concept that no theory of origin should be viewed as fact. Indeed, one must question whether a belief in God is more supernatural than a belief in the Big Bang. Mary Catherine Hackney, an expert in privacy law and the Chief Privacy Officer at DuPont, analyzed the *Edwards* case and remarked:

> Evolutionary theory is not without gaps, and acknowledging these gaps may expand and clarify a student's understanding of the issues involved. This is especially true given today's academic environment of debate over what constitutes science, how evolution may fully be explained, and whether intelligent design is science.[83]

In an area where so much intrinsic doubt is present, it seems that the best way to ensure a secular interest in the education of America's youth would be to present as many theories of origin as possible. Letting the next great minds decide what they may believe to be true is the surest way of avoiding any form of indoctrination. The lack of overtly religious language in the Act and the stated purpose to protect academic freedom in a secular environment are reason enough to reconsider the decision. As the *Edwards* Court attempted to preserve the separation

[83] Hackney, "In This Apple for Teacher," 379.

between church and state, the muddied waters of education provided a challenge. In many ways, religion is the backbone of history as it has motivated and guided much of what students learn each year. The Founding Fathers themselves were a product of those who sought religious freedom. If the precedent set by *Edwards* continues to prevail, students will be in danger of receiving a science curriculum which is stripped of all religious undertones. *Edwards* has demonstrated that a religion of secularism may be even more harmful than one based on an intrinsic belief in God.

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