TACTICS, STRATEGIES & BATTLES—OH MY: PERSERVERANCE OF THE PERPETUAL PROBLEM REGARDING PREACHING TO PUBLIC SCHOOL PUPILS & WHY IT PERSISTS

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I. INTRODUCTION

Science is well defined.\(^1\) Religion is premised on faith.\(^2\) Precedent dating back to the 1920’s firmly establishes both the scope and the bounds of the Establishment Clause.\(^3\)

Ostensibly, whether religion can be taught in a public school’s science classroom is obvious.\(^4\) Yet recent legislation suggest the religious war on Darwin’s Theory of Evolution is not only far from over but also successfully narrowing the gap between science and religion, thus, thrusting religious beliefs, more specifically Christian beliefs, into the classroom.\(^5\)

Turning a complete one-eighty over the past century, the majority of America, including our legal system, has abandoned strict, fundamentalist ideals for more figurative interpretations of religious views resulting in a growing acceptance of science.\(^6\) Beginning in 1925, the Scopes “monkey trial” revealed America’s devout commitment to religion as the ultimate explanation for explaining the unexplained, yet the fact that Scopes even reached trial signaled the inevitable.\(^7\) Not five decades later, anti-evolution laws would be banned from public education and society would begin questioning the role of preaching “divine creation” in the classroom.\(^8\)

Divine creation evolved into “creationism,” which evolved into “creation science,” which evolved into “intelligent design”—all of which have since been banned as alternatives to

\(^1\) [http://www.biology-online.org/dictionary/Scientific_method](http://www.biology-online.org/dictionary/Scientific_method) (last visited Dec. 1, 2008). The scientific method is defined as the “systematic approach to solving a problem by discovering knowledge, investigating a phenomenon, verifying and integrating previous knowledge . . . [through] a series of steps that evaluates the . . . feasibility of a prediction through research and experimentation from where the information obtained will be used as a basis in making conclusions.” *Id.*

\(^2\) [http://oxforddictionaries.com/definition/english/religion](http://oxforddictionaries.com/definition/english/religion) (last visited Nov. 28, 2012). Religion is defined as “the belief in and worship of a superhuman controlling power, especially a personal God or gods.” *Id.*


\(^4\) See *id*.


\(^7\) See *Scopes*, 289 S.W. 363.

\(^8\) See *Epperson*, 393 U.S. 97.
evolution in public schools, for all inherently entangle the government with religion.9

Nevertheless, two states have successfully enacted suspicious legislation and many more have bills diligently proceedings through the law-making process.10

Why has this conflict continually reached the court system and, considering Judge Stone’s scrupulous opinion in Kitzmiller v. Dover, is there a better solution?11 After examining the various strategies, multiple battles, and recent success of the religious war on evolution, this comment will take an objective look into the mind of the American public, thereby setting the stage for discussing the influence behind such tenacious forces.12 Not to suggest that religion has no place in the classroom and, clearly, a well-rounded education thrives from examining multiple perspectives, but simply because sculptors create imitations of mountains does not mean that art is geology.

II. RECONNAISSANCE—STRATEGIES AND BATTLES

Over 150 years ago, Charles Darwin wrote *Origin of Species by Means of Natural Selection*, marking the beginning of America’s longest war—the religious war on evolution.13 Prior to Darwin’s theory, science and religion were inextricably mixed, but soon after, religion

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9 RONALD L. NUMBERS, DARWINISM COMES TO AMERICA 50 (Nov. 1998). Some creationist may be described as “anti-evolutionist,” yet this is a broad, distorted generalization. Id. Young earth creationist adhere to a strict textual interpretation of the Biblical version of creation, completely reject the theory of evolution, and believe that the earth is roughly 10,000 years old. Dick Fischer, *Young-Earth Creationism: A Literal Mistake*, 55 PERSPECTIVES ON SCIENCE AND CHRISTIAN FAITH 222 (2003). “Gap” and “progressive” creationist accept evolution and the scientifically accepted age of the earth, but reject evolution through natural selection and, instead, posit that everything was ultimately guided by divine intervention. Id. Then advocates of intelligent design and theistic evolution accept the theory of evolution, the age of the earth, and even that humans evolved from a common ancestor, but still maintain that supernatural causation is ultimately responsible for everything. Id. Accordingly, current attempts of explaining the origins of humans or the universe through supernatural causation are not science, as the proposed proof cannot be observed, tested, or verified. Id.

10 See infra pp. 15-17.

11 See infra pp. 9-14.

12 See infra pp. 18-19.

and science would transform into polar opposites. Initially, the scientific community attempted to harmonize science and religion through broad interpretations and flexible standards; however, the theory of evolution quickly “shattered” the backbone of all religions—supernatural causation—by denying that humans were “a creation of God”; and so, the war began.

The scientific community quickly accepted Darwin’s theory and by the end of the nineteenth-century, the two explanations for mankind’s origins had seemingly become mutually exclusive. Responding to evolution’s rapid acceptance as a “sophisticated” science, creation proponents “introduced antievolutionary bills in thirty-seven states” during the first three decades of the nineteenth-century. Fearing the rapid spread of evolution, fundamentalists began lobbying state legislators, persuading them to enact antievolution laws, thus, successfully barring teaching evolution in public schools. “[T]he proponents of creationism declared war on evolution,” the public schools were the battlefield, and the Tennessee legislature struck first, leading the charge by successfully passing the Butler Act in 1925.

A. Evolution Outlawed, Until Epperson’s Big Bang

Backed by the ACLU, an elementary school teacher, John Scopes, had done the unthinkable—taught Darwin’s Theory of Evolution to his science class. Following a seventy-year suppression of the theory of evolution, the Butler Act banned teaching anything “that

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14 Id. at 664.
15 Id. at 664-65. In an attempt to stay loyal to the Bible, scientist shunned away from literal interpretations and suggested that the seven “days” was actually a much longer period, but that divine creation was still the underlying explanation. Id. at 664. See also Constance A. Clark, Evolution for John Does: Pictures, the Public, and the Scopes Trial Debate, THE JOURNAL OF AMERICAN HISTORY 1278 (Mar. 2001).
16 Davis, supra note 13, at 665. Several factors contributed to the conflict including the “tidal wave” of evidence supporting evolution, academic pressure, and worldwide critiques of the Bible. Id. at 667.
17 Id. at 666.
18 Id. at 666.
20 Id.
deny[d] the story of the divine creation of man, as taught in the Bible, and . . . instead [taught] that man had descended from a lower order of animals.”

Although there was little doubt as to the court’s decision, in considering whether the antievolution law was constitutional, it found (1) that the purpose of the Act, banning evolution, was well-served and supported; (2) that the Establishment Clause merely banned state churches; and (3) that, because Scopes was employed by the State, it was his job to obey the State’s laws; therefore, the court held that the antievolution law was constitutional.

Following Scopes, creationist shifted tactics and turned their focus to hounding local communities, which proved to be temporarily successful, as evolution largely disappeared from schools and teachers, fearing legal repercussions, refused to teach it.

But in 1968, the tables would turn. An Arkansas public school’s new textbook, “Modern Biology,” placed a young Arkansas teacher, Susan Epperson, in quite the conundrum—teach evolution or break the law—so Epperson brought action to have the law declared void.

Recognizing the importance of ensuring constitutional protection in the classroom, the court found that “the State may not . . . ‘aid or oppose’ any religion.” Furthermore, because the State only has the right to educate students, not the right to ban science, the court laid out the first considerations used to determine whether a particular law is neutral: examine the “the purpose

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22 Id. at 364.
23 Id. at 366-67. “At the time of the adoption of our Constitution . . . England and Scotland maintained state churches . . . and it was intended by this clause of the Constitution to prevent any such undertaking in Tennessee.” Id. at 367.
24 Id. at 363-67 (comparing Scope’s obligations to the state as those in a master-servant relationship).
27 Id. at 101-03 (noting that only two state’s currently maintained anti-evolution laws and not a single person in Arkansas’s history had actually been convicted of breaking the law).
28 Id. at 107 (quoting Abington Sch. Dist. v. Schempp, 374 U.S. 203, 225 (1963). See also Meyer v. Nebraska, 262 U.S. 390 (finding a policy prohibiting teaching foreign languages as unconstitutional, because it “interfered with the right of the individual”); People of State of Ill. ex rel. McCollum v. Board of Education, 333 U.S. 203 (holding that a policy allowing students to attend classes teaching religion in schools was unconstitutional).
and the primary effect of the particular act. The law’s preference for the biblical account of creation was the decisive factor in the court’s decision. Therefore, the court held that laws prohibiting public schools from teaching evolution were unconstitutional.

**B. The Creation Spiral: If You Can’t Beat Em’, Join Em’, or, at Least Imitate Em’**

Likewise, in *Daniel v. Waters* the Tennessee legislature was again at the frontlines of the battle and passed the “Genesis Act” requiring “an equal amount of emphasis” between theories explaining the origins of mankind including “the Genesis account in the Bible.” But the Tennessee legislature’s attempt was doomed from the start; before even applying the *Lemon* test, the court found that the law’s preference for the biblical account of creation was “unconstitutional on its face.”

Seven years after legalizing evolution, in *McLean v. Arkansas* the court found the “Balanced Treatment for Creation Science and Evolution Act” unconstitutional. Recognizing that beyond its preference for teaching the Biblical version of creation, creation science is predicated on a “contrived dualism,” and, therefore, balanced treatment was impossible because

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29 *Epperson* at 107 (quoting *Schempp*, 374 U.S. at 222) (emphasis added).
30 *Id.* at 108-09. The motivation behind the Arkansas’s law was identical to the purpose behind Tennessee’s Butler act: ban evolution in public schools. *Id.* (acknowledging that Arkansas’s law contained “less explicit language,” yet was nonetheless motivated by a desire to ban teaching anything other than the “divine creation of man”).
31 *Id.* at 109. “The law’s effort was confined to an attempt to blot out a particular theory because of its supposed conflict with the Biblical account.” *Id.*
32 *Daniel v. Waters*, 515 F.2d 485 (1975). In addition, the Tennessee law referred to evolution as an “opinion” and banned referring to evolution as a fact, directed students to the Bible as a reference text, and banned teaching “occult or satanical beliefs.” *Id.* at 487.
33 *Lemon v. Kurtzman*, 403 U.S. 626, 625 (1971). Building on the standards originally laid out in *Epperson*, in *Lemon* the Court explained “[t]he Constitution decrees that religion be a private matte,” thereby, establishing the boundaries of the Establishment Clause. In *Lemon*, the court established the test that continues to guide courts’ analyses: (1) ascertain the purposes of the institution, (2) determine the true effects of the state’s involvement, and (3) whether the government was entangled with religion. *Id.* at 614-14. “In order to determine whether government entanglement with religion is excessive, we must examine the character and purposes of the institution that are benefited, the nature of aid that the state provides, and the resulting relationship between the government and the religious authority.” *Id.*
34 *Id.* at 489. Furthermore, banning “occult or satanical beliefs” discriminates against certain beliefs and requires textbook publishers to label certain beliefs as “occult or satanical,” thereby, further violating the *Lemon* test. *Id.* at 491.
creation science and evolution are essentially mutually exclusive.\(^{36}\) Then, upon examining the scientific merits of creation science, the court held that creationism was not science.\(^{37}\) After applying the *Lemon* test, the court found that the Act promoted the biblical version of the origins of life, lacked educational value, and entangled the state with religion by requiring the state to govern the balancing.\(^{38}\)

Running with earlier attempts to merge the Bible with scientific explanations and implement a “balanced” curriculum, Louisiana enacted the “Creation Act” in 1987, which although not mandating anything specifically, required that if evolution was taught, “creation science” must also be taught.\(^{39}\) Highlighting the importance of forbidding “sham” purposes, the court investigated the legislature’s stated purposes—“Academic Freedom” and “teach[ing] all the evidence”—and determined that the Act was motivated by a desire to narrow the science curriculum and, therefore, the stated purpose was in fact a “sham.”\(^{40}\) In addition, “creation science” was deemed inherently religious, and, more specifically, the court stated it “embrac[ed] [a] particular religious doctrine.”\(^{41}\) Consequently, the *Edwards* court’s decision ended “creation science,” effectively banning teaching creationism as an alternative to evolution in public schools.\(^{42}\)

**C. Ignorance is Bliss; Critically Analyze . . . a Few, Specific Subjects**

\(^{36}\) *Id.* at 1266-67 (recognizing this “two model approach,” as a “contrived dualism” holding life “was either the work of a creator or it was not,” which is “identical to the two-model approach espoused by the Institute for Creation Research . . . [and] an extension of fundamentalists’ view that one must either accept the literal interpretation of Genesis or else believe in the godless system of evolution.” *Id.* at 1266-67.

\(^{37}\) *Id.* at 1267-72.

\(^{38}\) *Id.* at 1267.

\(^{39}\) Edwards v. Aguillard, 482 U.S. 578, 581 (1978). The act defined “creation science” as “the scientific evidence[] for creation and inferences from [that] scientific evidence.” *Id.* (quoting §§ 17.286.3(2) and (3)).

\(^{40}\) *Id.* at 586 (stating “the purpose [should] be sincere”). The Court found that by attempting to prohibit evolution, the legislature was actually restricting “academic freedom,” and had the opposite effect of “discrediting evolution by counterbalancing its teaching at every turn with the teaching of creationism.” *Id.* at 589 (internal quotations omitted) (citation omitted).

\(^{41}\) *Id.* at 591 (emphasis added).

\(^{42}\) *Id.* at 591-92 (finding that “creation science . . . embodies the religious belief that a supernatural creator was responsible for the creation of humankind,” thereby banning “creation science” from the public school classroom).
Eighty years after *Scopes v. State*, creationism resurfaced once again, boasting a new, sophisticated name exuding an air of academia and, supposedly, shedding its religious past—“Intelligent Design” (“ID”).\(^43\) The School Board in Dover, Pennsylvania successfully passed a new policy requiring a disclaimer be read to students before all science classes informing students that they were “required to learn Darwin’s Theory,” that the “[t]heory is not a fact,” and that “Intelligent Design was an acceptable alternative theory.”\(^44\) Students were further offered a supplemental text, “*Of Pandas and People*,” and, after directing them to their parents for any further inquiries, the disclaimer reminded students that they should “keep an open mind.”\(^45\)

In considering ID’s status as a scientific theory,\(^46\) the Intelligent Design Movement’s (“Movement”) own advocates were the best evidence against intelligent design.\(^47\) First, a thirteenth-century religious argument by Thomas Aquinas was identified as essentially the same reasoning behind the “purposeful arrangement of parts” argument presented in support of ID.\(^48\) More importantly, the “godfather” of ID, Phillip Johnson, stated “evolution contradicts . . . every word in the Bible” and “theistic realism” is the cornerstone of ID.\(^49\) Several expert witnesses, supposedly supporting the Movement, testified that ID’s fundamental goal was to broaden science and implement theistic understanding into education.\(^50\) But, as with its predecessors, the determining factor guiding the court’s decision was ID’s ultimate reliance on supernatural

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\(^44\) Id. (Emphasis added).
\(^45\) Id.
\(^46\) See infra footnote 109.
\(^47\) Id. at 716-22.
\(^48\) Id. at 718 (noting one difference between Intelligent Design and its predecessors was that ID’s “official position” did not recognize a God). The “purposeful arraignment of parts argument is essentially exactly as it sounds; i.e., “[w]herever complex design exists, there must have been a designer; nature is complex; therefore nature must have an intelligent designer.” Id.
\(^49\) Id. at 719.
\(^50\) Id. at 719-21.
causation.\textsuperscript{51} And, the changes to the School Board’s supplemental textbook, \textit{Of Pandas and People}, immediately after the court’s decision in \textit{Edward’s}, led the court to find that ID was nothing more than “creationism re-labeled.”\textsuperscript{52}

Both the Endorsement test and the \textit{Lemon} test were applied to the School Board’s policy, yet separately, for the court explained that the endorsement was essentially a “lens through which to view” \textit{Lemon’s} second-prong—the “effect” inquiry.\textsuperscript{53} More specifically, the Endorsement test consists of “determining what message a challenged governmental policy or enactment conveys to a reasonable, objective observer,” which includes both a student and a citizen.\textsuperscript{54} Recognizing the importance of protecting constitutional rights in the classroom, the court went on to consider whether an objective observer would perceive the policy as promoting or discriminating against religion.\textsuperscript{55} Imputed with the relevant historical and cultural background knowledge, attributed with intellectual sophistication, and made aware of the legal context behind the School Board’s ID policy, this hypothetical observer is presumed to be more astute than an average citizen.\textsuperscript{56} After defining the scope of an objective observer, the court applied the

\textsuperscript{52} \textit{Id.} at 721-22. “By comparing the pre and post \textit{Edward’s} drafts of \textit{Pandas}, three astonishing points emerge: (1) the definition for creation science in early drafts is identical to the definition of ID; (2) cognates of the word creation (creationism and creationist), which appeared approximately 150 times were deliberately and systematically replaced with the phrase ID; and (3) the changes occurred shortly after the Supreme Court held that creation science is religious and cannot be taught in public school science classes in \textit{Edward’s}.” \textit{Id.} at 722.
\textsuperscript{53} \textit{Id.} at 714.
\textsuperscript{54} \textit{Id.} at 714-715 (recognizing “that when the state surpasses the limits of neutrality and acts in ways that shows religious favoritism, it violates the Establishment Clause.”). The endorsement test “emanates from the prohibition against government endorsement of religion and it preclude[s] government from conveying or attempting to convey a message that religion or a particular religious belief is \textit{favored or preferred.”} \textit{Id.} (internal quotations omitted) (citations omitted). \textit{Id.} The endorsement test examines “whether an objective observer, acquainted with the text, legislative history, and implementation of the statute, would perceive it as a state endorsement of prayer in public school.” \textit{Id.} (quoting Santa Fe Independent School Dist. V. Doe, 530 U.S. 290 (2000)).
\textsuperscript{55} \textit{Id.} at 723-24 (reasoning that because students are both young and impressionable in addition to being compelled to attend school, and because “families entrust public schools with the education of their children,” assuring compliance with the Establishment Clause is vital in public schools).
\textsuperscript{56} \textit{Id.} at 723 (explaining that the objective “hypothetical” student is considered to be less aware than the objective “hypothetical” citizen, and, thus, less effective at identifying a state endorsement of religion).
Endorsement test to the School Board’s policy, analyzing it from the perspective of our hypothetical observer.\textsuperscript{57}

First, by listing evolution, and only evolution, as a “required” subject, the disclaimer sent the wrong message and highlighted evolution as a problematic theory.\textsuperscript{58} Then, by singling out evolution and labeling it as “just a theory,” the disclaimer was not only attempting trickery, but also misrepresenting scientific evidence in an effort to further foster common misconceptions, thereby discrediting evolution and laying the groundwork for presenting ID in a favorable light; resulting in “stupid” students.\textsuperscript{59} After gouging the credibility of evolution, the disclaimer introduced ID as a contrasting, alternative “explanation,” then directed students to \textit{Of Pandas and People} for further explanation, as if it were “scientific” evidence verifying ID as a valid theory.\textsuperscript{60} Finally, students were encouraged to “keep an open mind” and directed to their families for any further questions regarding ID, which, as noted by the court, undermines the fundamental goal behind all education—critical thinking.\textsuperscript{61}

Based on the plain text of the disclaimer, the court found that it conveyed a message of religious endorsement to students; however, the court went on to explain that two other considerations sealed the fate of the disclaimer.\textsuperscript{62} First, the classroom presentation portrayed ID

\textsuperscript{57} \textit{Id.} at 724-35.
\textsuperscript{58} \textit{Id.} at 724. The only subject mentioned was biology and the only aspect of biology discussed was evolution. \textit{Id.} “The first paragraph . . . disavows evolutionary theory . . . by telling students that they have to learn about evolutionary theory.” \textit{Id.}
\textsuperscript{59} \textit{Id.} at 725. The court recognized the School Board’s attempt to fool the public by playing on the “colloquial” understanding of the word “theory” by suggesting “that evolution was only a highly questionable opinion or hunch.” \textit{Id.} (internal quotations omitted). After misrepresenting the definition of a scientific theory, the disclaimer told students that there are “gaps” in Darwin’s theory, but did not offer any alternative explanations for such “gaps.” \textit{Id.} And, as noted by the expert witness, “confusing students about science generally and evolution in particular . . . makes students “stupid.” \textit{Id.}
\textsuperscript{60} \textit{Id.} at 725. Once again, the policy was attempting to deceive the public through word play by labeling evolution as a “theory” but labeling Intelligent Design as an “explanation.” \textit{Id.} And the court ousted this as the same “contrived dualism” strategy that creationist have employed throughout the century. \textit{Id.}
\textsuperscript{61} \textit{Id.} at 726. “[R]eminding students that they can rightly maintain beliefs taught by their parents . . . stifl[es] critical thinking.” \textit{Id.}
\textsuperscript{62} \textit{Id.}
as “carry[ing] special weight” and restricting any further discussion of ID gave it an air of being an exciting, forbidden “secret science” that was off limits in schools.\footnote{Id. at 727. In addition, “the objective student would understand that the administrators are reading the statement because the biology teachers refused to do so on the ground that they are legally and ethically barred from misrepresenting a religious belief as science . . . provid[ing] students with an additional reason to conclude that the District is advocating a religious view.” Id.}

Second, by allowing students to “opt-out” of the presentation, a hint of “novelty” was added to the disclaimer’s overall effect, effectively ostracizing the students choosing to “opt-out.”\footnote{Id. at 727-28. Exposing students to such dilemma sent a “clear message to students . . . that [non-adherents] are outsiders, not full-members of the political community.” Id.} Accordingly, the court found that requiring students to choose between God and science would lead an objective observer, whether student or citizen, to perceive the School Board’s policy as conveying a “strong official endorsement of religion.”\footnote{Id. at 729.}

For clarification, ID’s status as a scientific theory was also examined.\footnote{Id. at 735.} The cornerstone of science is the scientific method and, because ID ignores the scientific method, “ID is not science.”\footnote{Id. at 735.} According to Judge Jones, ID fails as science for three reasons: (1) by relying on supernatural causation, ID contradicts the underlying principles of science; (2) ID’s primary argument, “irreducible complexity,” is identical to creation science’s primary argument of “contrived dualism,” which courts have consistently rejected as science; and (3) the scientific community refuted, and continues to refute, ID’s discrediting evidence attacking evolution.\footnote{Id.}

Simply put, “science is limited to empirical, observable and ultimately testable data.”\footnote{Id.} And, because ID is premised on untestable “supernatural causation,” virtually every creditable scientific association agrees that ID is not science.\footnote{Id. at 736-37.}

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\footnote{Id. at 727-28. Exposing students to such dilemma sent a “clear message to students . . . that [non-adherents] are outsiders, not full-members of the political community.” Id.}
\footnote{Id. at 729.}
\footnote{Id. at 735-45.}
\footnote{Id. at 735.}
\footnote{Id. at 735.}
\footnote{Id. “[R]eading of a disclaimer that not only disavows endorsement of educational materials but also juxtaposes that disavowal with an urging to contemplate alternative religious concepts implies School Board approval of religious principles.” Freiler v. Tangipahoa Parish Bd. of Educ., 185 F.3d 337, 348. (5th Cir. 1999).}
\footnote{Kitzmiller, 400 F. Supp. 2d at 735.}
\footnote{Id. at 736-37.}
\end{footnotes}
witnesses were once again the strongest factor weighing against ID, revealing ID’s inherently religious nature by conceding that ID’s goal was to “replace [current] science” with “theistic and Christian science” and even admitting that ID was a “fringe science.”

“Irreducible complexity,” ID’s fundamental argument, posits that ID is true because evolution cannot yet explain certain processes, which advocates of ID claim can be explained by a higher, omniscient designer. The court, however, focusing on the absence of positive arguments supporting ID, deemed “irreducible complexity” as logically flawed, stating that ID’s primary evidence was nothing more than a series of negative attacks on evolution. Since relying on supernatural causation is a “science stopper,” the Kitzmiller court held that the School Board’s disclaimer promoted religion in violation of the Endorsement test.

In fact, due to distorting and misrepresenting scientific evidence, ID was deemed as anti-science; the court noted that there was not a single legitimate study supporting ID. Therefore, ID was dealt the same fate as “antievolution laws,” “creationism,” “balanced-legislation,” “academic-freedom bills,” and “creation science”—banned from being taught as an alternative to evolution in public education. Accordingly, the School Board’s policy was held to be in violation of the Establishment Clause.

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71 Id. at 736-39.
72 Id. at 738-39.
73 Id. at 738. “Just because scientists cannot explain today how biological systems evolved does not mean that they cannot and will not be able to explain them tomorrow . . . and absence of evidence is not evidence of absence.” Additionally, these negative arguments were based on dated experiments and several of ID’s irreducibly complex processes have, in fact, been proven reducible. Id. at 740-43.
74 Id. at 736.
75 Id. at 743.
76 Id. at 746-47. “ID is an interesting theological argument, but . . . it is not science.” Although violating the endorsement test was enough to deem the disclaimer unconstitutional, the court went on to examine the disclaimer under the Lemon test. Id. at 746. Repeated expressions of interest regarding implementing creationism into the curriculum, multiple discussions with the Discovery Institute, and delaying the purchase of new biology textbooks all suggested religious undertones concerning the new disclaimer. Id. at 748-51. And attempts to prevent the purchase of new textbooks, forcing Pandas on the teachers, and ignoring a “prudent warning” of the of the disclaimer’s inherently religious nature all brought ID’s religious motives to light. Id. 750-57. But after changing the curriculum and isolating portions of the community by informing the public of the disclaimer, the definitive factor
D. Wave of the Future: Critiques, Controversies, and Weaknesses

After enduring a gauntlet of defeat, the year 2008 marked a huge victory for the creationist movement, for the Louisiana legislature conquered prized territory in passing the “Louisiana Science Education Act.”78 Aimed at “promot[ing] critical thinking,” discussing “scientific theories,” and “objectively review[ing] scientific theories,” the Louisiana Act permitted teachers to use, at their own discretion, “supplemental textbooks and other instructional materials.”79 And sporting a new First Amendment disclaimer, the Act preemptively denied any possibility of promoting or discriminating against any religious belief.80

Four years later and back in Tennessee, the new “monkey law” was successfully passed.81 Almost identical to Louisiana’s Act, Tennessee’s law was aimed at “develop[ing] critical thinking skills” and listed specific subjects, including evolution, as causing “debate and disputation,” which resulted in “unsure” teachers.82 “Respond[ing] appropriately to differences of opinions required to be taught,”83 was the justification for barring the state’s administrators from “prohibit[ing]” teachers from helping students “critique and review . . . the scientific strengths and weaknesses of existing scientific theories.”84 Similar to Louisiana’s Act, the Tennessee law also ended with a preemptive First Amendment disclaimer.85

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77 Id. at 765.
79 Id. More specifically, the Act encourages discussion of “evolution, the origins of life, global warming, and human cloning.” Id.
80 Id. “This Section shall not be construed to promote any religious doctrine, promote discrimination for or against a particular set of religious beliefs, or promote discrimination for or against religion or nonreligion.” Id.
82 Id.
83 Id.
84 Id.
85 Id. “This section only protects the teaching of scientific information, and shall not be construed to promote any religious or non-religious doctrine, promote discrimination for or against a particular set of religious beliefs or non-beliefs, or promote discrimination for or against religion or non-religion.” Id.
While Louisiana and Tennessee are the only states that have successfully passed such laws thus far, they likely will not be the last.\textsuperscript{86} In 2011, legislators in both Kentucky\textsuperscript{87} and Florida\textsuperscript{88} initiated similar acts. The “Kentucky Science Education and Intellectual Freedom Act” encouraged discussing the “advantages and disadvantages” of “theories” and permitted additional “textbooks and instructional materials” to help explain such controversies.\textsuperscript{89} The Florida Act championed the importance of “critical analysis . . . of the theory . . . of evolution,” and allowed outside “books and materials” to help critique evolution.\textsuperscript{90} Both laws included preemptive First Amendment disclaimers similar to the ones in Louisiana and Tennessee.\textsuperscript{91}

New Mexico’s 2011 Act held that the state “shall not prohibit” teaching about the “strength and weaknesses” of “controversial scientific topics,” including evolution.\textsuperscript{92} And it even deemed scientific information to include “religious tenets.”\textsuperscript{93} Likewise, the Oklahoma legislature proposed consecutive bills in 2011 and 2012, the most recent of which was motivated by “develop[ing] critical thinking skills” and was concerned that teaching “some scientific concepts . . . can cause controversy,” resulting in “unsure teachers.”\textsuperscript{94} And, on par with all its predecessors, the law granted teachers permission to teach the “scientific strengths and weaknesses” of “theories.”\textsuperscript{95} Both laws included preemptive First Amendment disclaimers similar to their sister bills.\textsuperscript{96}

\textsuperscript{89} 2011 Fla. Senate Bill No. 1854 (2012).
\textsuperscript{90} 2011 Fla. Senate Bill No. 1854 (2012).
\textsuperscript{92} 2011 N.M. House Bill No. 302 (2011).
\textsuperscript{93} Id. The act prohibited religious writings, beliefs, or doctrines. Id.
\textsuperscript{94} 2011 Okla. Senate Bill No. 554 (2011).
\textsuperscript{95} Id.
III. FALLACIES, EMOTION, MONEY & POLITICIANS: A DANGEROUS CONCOCTION

A. The Recent Legislation: Administrators Just Don’t Understand

Most Americans understand evolution to some degree, but among the religious and the secular alike, “substantial majorities of the public” support including creationism in public education’s science curriculum. More than one-third of Americans prefer to abandon teaching evolution all together in favor of creationism. While diversity is essential to education, the public’s view on what should be taught in science classes suggest a degree of ignorance with regard to understanding ordinary words.

Manipulating language to spark emotion has proven to be a key tactic allowing this century-old game of whack-a-mole to continue. First apparent with the scientific sounding language of the 60’s, 70’s, and 80’s, law makers behind these suspicious laws and policies evolved from simply using scientific sounding language to patently misrepresenting science by taking advantage of common vernacular misconceptions.

The layman understands a “theory” to be an “imperfect fact,” a simple suggestion or belief; the common understanding of what constitutes a theory is broad enough to include virtually any combination of ideas. To further cultivate such popular misconceptions, antievolutionists have taken advantage of every opportunity to exploit the colloquial

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97 The Pew Research Center, Public Divided on Origins of Life: Religion A Strength and Weakness for Both Parties 10 (Aug. 30, 2005) (finding 65% of people prefer creationism be taught alongside evolution, compared with only 26% of people opposing the idea).
98 Id. (finding 38% of people polled felt that creationism should replace evolution in public schools).
99 See id. “For example, among people who oppose teaching creationism either along with or instead of evolution, 27% personally take the creationist position on human origins. Id. Similarly, 19% of people who think creationism should be taught instead of evolution nevertheless personally believe in evolution through natural selection.” Id.
101 See supra footnotes 26-29 and accompanying text.
102 See supra footnotes 32-34 and accompanying text.
103 See supra footnote 39 and accompanying text.
104 See supra footnotes 35, 39. Error! Bookmark not defined., 81-87 and accompanying text.
106 See supra footnotes 26-94 and accompanying text.
understanding of the term “theory” and, in effect, full the public.\textsuperscript{107} Several states, moreover, have labeled evolution as a “hypothesis” or even a “concept.”\textsuperscript{108} The scientific community, however, restricts the term “theory” to testable, physical subject matter.\textsuperscript{109} Misleading America’s future generations because of a social dispute is inappropriate and cultivating scientific misconceptions will inevitably lead to “stupid students.”\textsuperscript{110}

Critical thinking, objectivity, and skeptical investigation are all essential to any education, but the recent legislation may prove to be counter-productive, thus, opposing the very principles they purport to support.\textsuperscript{111} By advocating “critical analysis”\textsuperscript{112} of scientific evidence and subsequently isolating evolution along with other, choice, scientific “theories,” the recent legislation casts an unnecessary shadow of doubt over well-established scientific theories.\textsuperscript{113}

More importantly, isolating these few theories as the only subjects deserving a heightened level of scrutiny out of the entire public school curriculum undermines the very

\textsuperscript{107} See supra footnotes 57, 61, 65, 81-87 and accompanying text.
\textsuperscript{108} See supra footnotes 94, 94 and accompanying text.
\textsuperscript{109} First, a “thought,” a mere “notion,” or an “abstract idea”—the term “concept” lies at the birth of a scientific day that, after running through the scientific method, may potentially become an established scientific theory. http://www.merriam-webster.com/dictionary/concept (last visited Dec. 3, 2012). Next, if a concept has merit, scientist will propose various “hypothesis” that must be tested and verified. Then, if verified, a hypothesis transforms into a scientific “theory”— an idea “so well established that no new evidence is likely to alter [it] substantially.” Id. “[Theory] refers to a comprehensive explanation of some aspect of nature that is supported by a vast body of evidence.” Id. For example, heliocentric theory, the theory that humans are made from cells, and the theory of plate tectonics are all so well supported by evidence that their basic explanations will likely never change. Id. And, at the farthest end of the spectrum, a well-defined “theory” may become a scientific “fact”—“[a] scientific explanation that has been tested and confirmed so many times that there is no longer a compelling reason to keep testing it.” Id. And according to the National Academy of Sciences, “evolution is a scientific fact.” Id. (noting that “[b]ecause the evidence supporting it is so strong, scientists no longer question whether biological evolution has occurred and is continuing to occur. Instead, they investigate the mechanisms of evolution, how rapidly evolution can take place, and related questions.” Id.
\textsuperscript{112} See supra footnotes 80-96.
\textsuperscript{113} See supra footnotes 78-94 and accompanying text.
essence of “critical thinking”—thinking. Particularly, the legislation insinuates that these theories are problematic and even encourages students to approach such theories with a skeptical attitude, as if such basic scientific principles were actually in dispute.

After discrediting evolution as merely a “theory” and encouraging a substantial critique of such “theories”, the various acts encourage weighing the “strengths and weaknesses” of “controversial” theories including evolution. Such a claim, however, is deceiving; evolution is a scientific fact and according to the NAS, “[t]here is no scientific controversy about the basic facts of evolution.” Furthermore, virtually the entire scientific community accepts evolution by means of natural selection as firmly established and well proven. The supposed “controversial” nature of evolution is not even related to the theory’s scientific merit, but rather the controversy itself is propelled by emotion. In effect, the bills are actually going against their underlying goals—“teaching the controversy” and “academic freedom”—by misrepresenting the scientific status of well-established theories.

Restricting the authority of state actors by granting teachers unrestricted permission to teach as they subjectively see fit, not only challenges the state’s employment authority, but also presents a huge opportunity for indoctrination to sneak in through crafty teachers. As employees of the state, teachers have an obligation to teach the curriculum mandated by the state and granting unregulated authority over young minds supplants our democratic system. Also, the degree of supervision potentially required to ensure constitutional compliance will inevitably

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114 See supra footnotes 80-96 and accompanying text.
115 Id.
116 Id.
118 See supra footnotes Error! Bookmark not defined.Error! Bookmark not defined. and accompanying text.
119 See supra footnotes 134-136 and accompanying text.
120 See supra footnotes 78-94 and accompanying text.
121 See supra footnotes 80-96 and accompanying text.
122 See supra footnotes 24, 119-133 and accompanying text.
entangle the state with religion, for, then, the state must determine what is religious and what is not.\textsuperscript{123}

The newest strategy revealed by the recent legislation—preemptive First Amendment strikes—exhibits repressed apprehension concerning the acts’ potential success.\textsuperscript{124} By contrasting “religion” with “non-religion” and beliefs” with non-beliefs,” the language implies the opposing sides are mutually exclusive enemies, thereby inflaming this century old battle.\textsuperscript{125} And using the negative prefix “non” may insult “non-religion[s]” and “non-belie[vers]” by suggesting a lack or absence of beliefs, views, and perspectives, which not only sparks further tension between two different fields, but also entails a hint of discrimination for these so called “non[s]” and possibly a preference for “religion”—especially the Biblical version.\textsuperscript{126} The fact that legislators even felt the need to include a preemptive disclaimer conveys an aggressive, defensive approach, suggesting that the legislators knew they had something to preempt and even recognized the acts’ religious undertones.\textsuperscript{127}

While the court’s opinion in \textit{Kitzmiller v. Dover} was nothing short of impressive, perhaps banning ID from science is too restrictive.\textsuperscript{128} Linking ID with “deeply held beliefs” unnecessarily cast a religious aurora over an area of science that, as noted by the court, “should continue to be studied, debated, and discussed.”\textsuperscript{129} Furthermore, by qualifying ID as “an alternative to evolution,” the court may be establishing an overly broad restriction in an exciting, growing area of scientific endeavor.\textsuperscript{130} Similarly, perhaps the recent legislation teaches an invaluable lesson as to the ultimate objectives behind education; while preferring or discriminating against any

\begin{itemize}
\item \textsuperscript{123} See \textit{supra} footnote 38 and accompanying text.
\item \textsuperscript{124} See \textit{supra} footnotes 80, 85, 91, \textbf{Error! Bookmark not defined.} and accompanying text.
\item \textsuperscript{125} \textit{Id.}
\item \textsuperscript{126} \textit{Id.}
\item \textsuperscript{127} \textit{Id.}
\item \textsuperscript{128} \textit{Kitzmiller v. Dover, Area Sch. Dist., 400 F. Supp. 2d 707 (2005).}
\item \textsuperscript{129} \textit{Id.} at 765.
\item \textsuperscript{130} See \textit{supra} footnote 73 and accompanying text.
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religion is prohibited, broad restrictions on the bounds of education may be detrimental if taken too far. And, as evidenced by the recent legislation, the point of no return is becoming miniscule.\textsuperscript{131}

So good on congressional leaders for promoting skepticism in education; teaching the controversy, however, does not include making excuses for uncertain teachers; it means ensuring teachers understand the material themselves and are confident in communicating with students.\textsuperscript{132} Distorting information to confuse students and parents is not only unethical, but also hazardous to the entire nation.\textsuperscript{133} Instead, educators should strive to truly teach the controversy and educate students on objectively analyzing and evaluating empirical evidence through properly applying the scientific method.

\textbf{B. America Divided}

To understand the persistence behind the creationist movement and to explain how religion continues to challenge evolution after more than eighty years of rejection, it is vital to understand the mentality of the American public. According to the Pew Research Foundation, more than nine out of ten Americans believe in God; 78\% of which are Christian, and half of which are Protestant.\textsuperscript{134} And while eight out of ten people feel science benefits society, a little over half of Americans sense an implicit conflict between religion and science.\textsuperscript{135} When it comes to accepting evolution, the public becomes even more skeptical; not even one-third of Americans understand that humans evolved through natural processes, and over half believe evolution was

\begin{footnotesize}
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  \item See supra footnotes 78-95 and accompanying text.
  \item See supra footnotes 79, 90 and accompanying text.
  \item See supra footnotes 56, 60 and accompanying text.
  \item \textsc{The Pew Research Center}, \textit{U.S. Religious Landscape Survey: Religious Beliefs and Practices: Diverse and Politically Relevant 5} (June 2008). While 92\% of Americans believe in God, only 60\% feel that people have a personal relationship with God, 25\% believe in an impersonal God, and 7\% do not know. \textit{Id.}
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ultimately guided by divine intervention. Of Americans who understand the theory of evolution through natural selection, more than half are not affiliated with a particular religion and have never attended church.

Contrarily, almost half of persons identifying as Protestant reject the theory of evolution and, instead, believe that life originated in its present form. The public’s opinion as to the credibility of evolution has undoubtedly improved over the years; however, such blind denial is in stark contrast to the scientific community’s overwhelming acceptance of the theory of evolution. Contrasting opinions, misleading evidence, and widespread misapprehension as to the status of science have all effectuated a “communication gap” distancing the public from the scientific community.

Among person strictly believing in creationism, over half of Americans think they are most suitable to teach their own children the theory of evolution, yet less than one-third of those who understand evolution through natural selection feel that parents should be the primary voice in teaching children evolution. Comparatively, only 16% of creationists feel that scientist or science teachers should teach students evolution, whereas almost half of people understanding evolution prefer scientist and science teachers educate our youth. Considering the fact that fundamentalist have successfully misled the public as to the definitions of such common terms as “concept,” “hypothesis,” and “theory” numerous times over the last century, perhaps it would be

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136 Id. Furthermore, persons unaffiliated with a particular religion are more likely to perceive a conflict between religion and science—more specifically, 32%. Id.
137 Id.
138 Id.
139 Ronald K. Hodgson, A survey on Universirty Students' Understanding of the Place of Evolutionary Biology in the Creation/Evolution Controversy, THE JOURNAL OF EVOLUTION AND SCIENCE CREATION 29. Eighty-seven per cent of scientists agree that evolution occurred over time through natural selection, while only two per cent of scientists reject Darwin’s theory. Masci, supra, note 135.
140 Hodgson, supra, note 131.
141 Id. at 11.
142 Id.
more beneficial to society as a whole if education is left up to the educated educators whose entire career is focused on educating.\footnote{See supra pp. 4-14.}

Merely half of Americans know that practically the entire scientific community accepts the theory of evolution as a fact and, astoundingly, one-third of Americans think scientist completely disagree about the credibility of evolution.\footnote{THE P E W R E S E A R C H C E N T E R, Public Divided on Origins of Life: Religion A Strength and Weakness for Both Parties 9, available at http://www.pewforum.org/Politics-and-Elections/Public-Divided-on-Origins-of-Life.aspx (Aug. 2005). By an 82%-13% margin, those who accept natural selection theory see a scientific consensus on the issue.” Id.} Creationist interpreting the Bible as literal are significantly more inclined to be “very certain” as to their explanations for the origin of life, yet persons believing in evolution are less certain of their beliefs.\footnote{Id.} A plurality of Americans, unsurprisingly, credits their religious views as the most influential factor guiding their beliefs, whereas most persons accepting evolution cite their education as the primary influence on their views.\footnote{Id.} Such a vulnerable, ill-informed populace lays a promising foundation for enacting improper laws, only limited by lack of funding; however, wherever there is potential influence, funding is never far away.

C. Hey! Must be the Money

Notwithstanding I.R.S. classification as charitable organizations, the charities, businesses, and mass-media outlets driving the war on evolution spend more than $300 million a year combined; the amount of money donated to these organizations is remarkable.\footnote{THE P E W R E S E A R C H C E N T E R, Lobbying for the Faithful: Religious Advocacy Groups in Washington, D.C. (NOV. 2011), available at http://www.pewforum.org/government/lobbying-for-the-faithful--exec.aspx.} The Discovery Institute, one of the most prominent advocates of the ID movement, receives more than $4.2 million in annual donations, makes more than $4.3 million in annual revenue, and spends more
than $4.4 million a year.\textsuperscript{148} The Institute for Creation Research receives more than $8.7 million in annual donations and spends more than $5.5 million a year advocating creationism.\textsuperscript{149} And the Family Research Council receives over $12 million, makes over $10 million, and spends more than $12 million in yearly expenses.\textsuperscript{150}

The American Family Association (“AFA”), one of the country’s most prominent religious media outlets, receives more than $17 million in annual donations, brings in another $17 million in annual revenue, and spends more than $20 million a year.\textsuperscript{151} James Dobson’s Focus on the Family (“FOTF”) has received more than $605 million in contributions since 2005.\textsuperscript{152} And FOTF brings in more than $87 million in annual revenue, allowing over $100 million a year to be spent in its effort to promote evangelical, socially conservative views, including advocating religion in schools.\textsuperscript{153}

In addition to the money, “entire media operations . . . exists solely to promote ideology.”\textsuperscript{154} With over 2 million supporters, 180,000 subscribers, and almost 200 radio stations throughout the country, the AFA’s communication capabilities have been crucial to the success of creationism.\textsuperscript{155} And reaching over 220 million people each day from over 7,000 radio stations scattered across 160 countries, FOTF promotes creation science globally.\textsuperscript{156} Additionally, in 2009 FOTF spent almost $15 million on publications, another $5 million on its web site, over $5

\textsuperscript{149} http://www.charitynavigator.org/index.cfm?bay=search.summary&orgid=7485 (last visited Nov. 10, 2012).
\textsuperscript{152} I.R.S., Focus on the Family Federal Tax Form 990, Public Charity Status and Public Support 3 (2009).
\textsuperscript{153} http://www.charitynavigator.org/index.cfm?bay=search.summary&orgid=3706
\textsuperscript{155} http://www.charitynavigator.org/index.cfm?bay=search.summary&orgid=3706
\textsuperscript{156} Id.
million on “public policy awareness,” and more than $7 million on “family events.” And CitizenLink, FOTF’s politically motivated affiliate, spent over $5 million on publications and another $1.3 million on “public policy awareness.” With seemingly limitless funding, these special interest groups have made a science out of sweet-talking law makers into testing the limits of the Constitution, thus, leading to improper laws.

D. Between Charybdis and Scylla

Since the turn of the nineteenth-century, the religious lobby has grown over 100% into one of the most prominent advocacy groups in America and “the number of organizations engaged in religious lobbying . . . has increased roughly five-fold in the past four decades.” Because FOTF racked up over $111 million in “purpose expenditures,” its “lobbying nontaxable amount” is limited to $1 million a year, which FOTF has only spent $952,767 of since 2006. But its politically motivated affiliate, CitizenLink, spent more than $10 million in 2011 alone.

Additionally, FOTF sent almost $3 million to offshore organizations for such things as “[p]rogram services,” “counseling services,” “character training,” and “fundraising activities.” As mentioned above, addressing the public will always play the largest role in lobbying for social issues, but the amount of direct contact that these special interest groups have with

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159 Luis Lugo, Lobbying for the Faithful: Religious Advocacy Groups in Washington, D.C., at 14, 24, available at http://www.pewforum.org/government/lobbying-for-the-faithful-exec.aspx#expenditures (updated May 2012) (growing from only two organizations in in the 1890’s to over two hundred in 2010). A quarter of the biggest spenders are classified as protestant. Id. at 39
162 I.R.S., Focus on the Family Federal Tax Form 990, Public Charity Status and Public Support, Statement of Activities Outside the United States 24 (2009). More specifically, the majority of the money was sent to the Caribbean, East Asia and the Pacific, and the Middle East. Id.
politicians, especially considering their tax status, is astounding: over 90% of religious special interest groups having direct contact with lawmakers and over three-quarters admitted to either publishing papers or giving testimony for hearings. Gullible, hoodwinked, and distrustful of novel explanations, America’s incredulous attitude towards science combined with a steady supply of funding, media exposure, and scholarly-esq publications is nothing short of a politician’s demented fantasy—such a potent concoction explains how bad laws consistently arise.

V. CONCLUSION

Where does it end? And, should it even end? Still vibrant after being put down for the better part of a century, fundamentalists demanding that the biblical version of creation be taught in public schools have successfully kept the issue alive. From flat out banning evolution, all the way to teaching the controversy, creationists have proven time and time again that the issue is not as simple as first perceived. The recent wave of state legislation also indicates that even advocating critical analysis in education leaves room for religious beliefs to sneak into science classes. And, considering the vast amount of resources supporting the creationist movement, it’s no surprise that they consistently succeed. Understanding the forces behind such blatantly improper laws requires understanding the hidden influences thrusting these laws through our government. But while misrepresenting scientific standards and negative attacks on proven scientific theories is highly inappropriate, the creationist movement makes a valid point—teach the true controversy!
