Chapter Four: Curriculum Issues

A. Constitutional Limits that Affect Public School Curriculum and Opt-Outs

1. Schools Cannot Use Religious Criteria for Selecting or Removing Books from the School Library Collection

Although public schools have broad discretion to acquire books for their library collections, public schools violate students' First Amendment right to access information when, for religious reasons, they remove books from the library collection based on the book's content.[1] For example, a public school library may hold Charles Darwin's *On the Origin of Species* or Mark Twain's *Adventures of Huckleberry Finn* so long as the librarian did not select the book for religious reasons. Once part of the library's collection, that book may not be removed for religious reasons. Accordingly, while school districts are generally given a great deal of discretion in determining what books will actually be available in the classroom or used in the curriculum,[2] it is impermissible for a school board to remove already-acquired books from the school library strictly on school board members' religious objections.

In establishing these principles, the Supreme Court, in B*oard of Education, Island Trees Union Free School District No. 26 v. Pico*,[3] acknowledged that "local school boards must be permitted 'to establish and apply their curriculum in such a way as to transmit community values,' and that 'there is a legitimate and substantial community interest in promoting respect for authority and traditional values be they social, moral, or political.'"[4] But the Court limited that discretion to "matters of *curriculum*," explaining that the public school's "duty to inculcate community values" does not "extend . . . beyond the compulsory environment of the classroom, into the classroom library and the regime of voluntary inquiry."[5]

2. Public Schools May, but Are Not Constitutionally Compelled to, Allow Students to Opt Out of Material in Classes That Is Inconsistent with Their Religious Beliefs

Given the broad discretion that public schools have in deciding curriculum, many parents have found themselves in one of two positions: First, some parents find themselves wanting to opt out of public school education altogether. In *Pierce v. Society of the Sisters of the Holy Names of Jesus and Mary*,[6] the Supreme Court squarely held that states cannot legislatively compel parents to choose a public school over a private school education for their children. In the Court's view, that state action "unreasonably interferes with the liberty of parents and guardians to direct the upbringing and education of children under their control."[7] In these circumstances, alternatives to public education are subject to reasonable state regulation.[8] Although the question has not been squarely litigated, the same reasoning has been used to justify homeschooling options, subject to reasonable regulation.

Second, some parents find themselves wanting to take advantage of free public education for their children while opting out of objectionable assignments or reading material that offends their religious beliefs. In these circumstances, although public schools may permit children to opt out of parts of the curriculum, the Free Exercise Clause does not require schools to do so.[9]

The lead case in this area is *Mozert v. Hawkins County Board of Education*,[10] where the court upheld a public school's decision not to provide an opt-out for reading assignments that some parents found religiously offensive. In that case, the parents objected on religious grounds to their children reading basic readers, designed to develop critical reading skills, where those readers contained a story involving mental telepathy and other religiously objectionable stories. In finding for the school district, which ultimately did not permit the children to opt out of the reading assignments, the court relied on the fact that public education was not mandatory; rather, the state there, Tennessee, offered parents two alternatives to public education: private schooling and home schooling.[11]

The court also remained mindful of the tension between the religion clauses in this context. It was careful to note that requiring an objecting student "to participate beyond reading and discussing assignment materials, or [who] was disciplined for disputing assigned materials, might well

implicate the Free Exercise Clause because the element of compulsion would then be present."[12] But the court also cautioned public schools not to "tailor [their] curriculum to satisfy the principles or prohibitions of any religion;" the Court observed that such attempts to avoid violating the Establishment Clause would in fact violate the Establishment Clause.[13]

The lower federal courts have generally followed the *Mozert* rule, concluding that the Constitution does not mandate that schools provide students with opt-outs.[14] While states or school districts can choose to provide opt-outs by administrative decision or through state or local laws and regulations, if the school district does not provide curriculum opt-outs, the Constitution permits the school district to adopt the "'my way or the highway'" approach of telling parents that the decision to send their child to public school (rather than home or private school) does not privilege parents to pick and choose which parts of the curriculum are available or unsuitable for their children.[15]

The federal courts have also generally held that parents cannot require that their children opt out of reading texts or viewing sex education materials that the parents find morally or religiously objectionable.[16] For example, parents do not have a right that their children receive an opt-out from reading materials that involve subjects that the parents find objectionable.[17] Some states permit opt-outs by statute.[18] And parents cannot constitutionally require states or schools to permit their children to opt out of public school sex education presentations.[19] But at least one federal court has concluded that the school district cannot enforce a rule that a student either take a physical education class or Reserve Officers' Training Corps (ROTC) class, where the school offered only ROTC and not physical education class and where the student claims a conscientious objector status, because such a requirement would compel orthodoxy.[20]

3. In General, Students May Not Opt Out of Large Segments of a Curriculum (e.g., Elementary School Reading) and Learn About It at Home Because of Religious Objections to the Method By Which It Is Taught (e.g., not Using Phonics)

Nor does the Constitution require public schools to allow dual-enrollment—situations where the student is home or private schooled for much of the curriculum but is permitted to opt into part of the public school curriculum.

As with opt-out programs, states and public schools generally have discretion to permit dual-enrollment by statute, regulation, or school policy. A common application of this practice occurs in the early-release time context. Understanding that public schools would violate the Establishment Clause were they to permit religious instructors to take over public school classrooms to administer religious instruction,[21] school districts may permit students to leave school buildings and school grounds to attend religious centers for religious instructional or devotional exercises without violating the First or Fourteenth Amendments.[22] But, because "decisions as to how to allocate scarce resources, as well as what curriculum to offer or require, are uniquely committed to the discretion of the local school authorities," parents have no constitutional right, and do not present a colorable "hybrid rights" claim when they seek to have their children attend public school on a part-time basis so that the child can receive religious instruction at home, but a better education than the parents can provide in vocal music or foreign language, for example, at the public school.[23]

Accordingly, release-time programs will generally be upheld as long as (1) there is no evidence that the public schools enforce attendance at the religious schools by punishing absentees from the released time programs with truancy sanctions; (2) the school authorities remain neutral about the program and do nothing other than release the students for the religious instruction upon the request of their parents; (3) the school authorities do not force or coerce any student to attend the religious instruction; and (4) the school authorities do not actually bring the religious instruction into the public school.[24] Two federal courts have interpreted these restrictions to permit "as applied" legal challenges to the programs where there is actual coercion to attend.[25]

4. Public Schools Can Prohibit Students From Submitting Book Reports on Scriptures, including Religious References in Art Projects, Where the Report or Project Does Not Comply with the Exercise's Pedagogical Purpose

Courts have routinely held that public schools are permitted to restrict student religious speech or to prohibit students from writing on a religious topic where the speech or topic does not fit within the confines of the assign-

ment.[26] A public school can also restrict a student's religious viewpoint when a reasonable outside observer could view the student's religious speech as being endorsed by the school.[27]

Notwithstanding a public school's broad discretion to restrict student religious speech in such cases, some courts have been unwilling to permit the school district to restrict student religious speech, even when it is the speech of a child of tender years, simply because of its religious nature, where it allows other speech falling outside the context of the assignment. For the most part, these cases are better viewed as content- or viewpoint-discrimination cases. For example, in *Peck v. Baldwinsville School District*, the court found controlling the fact that the school teacher had admitted that she would not have demanded a student to make a new poster had that poster been on another topic that was also outside of the range of topics covered in the two-month class unit on recycling, such as atoms or manatees, rather than on a religious topic.[28] In *Curry v. Saginaw*,[29] the court held that the school district engaged in impermissible viewpoint discrimination when it prohibited a student from using a religiously themed candy ornament for his class. Also when the school creates a limited public forum by holding a school talent show, it engages in unconstitutional viewpoint discrimination under the Free Speech Clause when it prohibits a student from singing a religiously themed song.[30]

B. Teaching Evolution and Its Alternatives

1. Overview: Schools Can Neither Outlaw the Teaching of Evolution Nor Give "Equal Time" for Discussion of Evolution and "Creation Science"[31]

The questions whether and how human origin theories may be taught in public school science classes sharply implicates rights under the Establishment Clause of the First Amendment. That clause forbids the enactment of any "law respecting an establishment of religion."[32] This "fundamental concept of liberty" embodied in the First Amendment applies to the states through the Fourteenth Amendment,[33] which includes public elementary and secondary schools.[34] In this context, the considerable discretion normally afforded to state and local school boards in operating these public schools "must be ex-

ercised in a manner that comports with the transcendent imperatives of the First Amendment."[35]

The "First Amendment mandates governmental neutrality between religion and religion, and between religion and nonreligion."[36] As explained in the introduction to this book, in *Lemon v. Kurtzman*, the Supreme Court developed a three-pronged test to determine whether state action runs afoul of the Establishment Clause.[37] First, the act must have a bona-fide secular purpose.[38] Second, the act's principal or primary effect must one that neither advances nor inhibits religion.[39] Third, the act must not result in an excessive entanglement of government with religion.[40] State action violates the Establishment Clause if it fails to satisfy any of these prongs.[41] For more than three decades, the *Lemon* test has been used to determine whether state action violates the Establishment Clause – most recently to strike down a display of the Ten Commandments established by the Kentucky legislature.[42] But as the Supreme Court observed in *McCreary County v. ACLU*, "Establishment Clause doctrine lacks the comfort of categorical absolutes," thereby making *Lemon* a highly fact-intensive inquiry into the purpose and effects of state action.[43]

In recent years, lower courts reviewing disputes involving public school teaching of evolution have also applied the endorsement test. That test, first articulated by Justice O'Connor in *Lynch v. Donnelly*,[44] clarifies that *Lemon*'s purpose prong "asks whether government's actual purpose is to endorse or disapprove of religion."[45] It further clarifies *Lemon*'s effect prong, asking "whether, irrespective of government's actual purpose, the practice under review in fact conveys a message of endorsement or disapproval."[46] The Supreme Court in *County of Allegheny v. ACLU*,[47] later adopted the endorsement test, commenting that "the [Establishment] Clause, at the very least, prohibits government from appearing to take a position on questions of religious belief or from 'making adherence to a religion relevant in any way to a person's standing in the political community.'"[48]

Considering that the Supreme Court first adopted the endorsement test in 1989, it stands to reason that the endorsement test does not fully figure into the analysis of the only two anti-evolution cases reviewed by the Supreme Court, both of which predate *Allegheny*.[49] Post-*Allegheny* courts have had no trouble applying the endorsement test to public school policies regarding teaching evolution. For example, in *Freiler v. Tangipahoa Parish Board of Education*,[50] the United States Court of Appeals for the Fifth Circuit

invalidated a disclaimer that the school board required teachers to read to students before teaching them evolution, because the disclaimer had the primary effect of endorsing a particular religious viewpoint.[51] In *Selman v. Cobb County Sch. Dist.*,[52] the district court, applying *Lemon* and the endorsement test, concluded that the "primary effect" of a school board's requirement that a sticker, warning that evolution is not a fact, be posted in the front cover of the compulsory biology textbook, was to endorse religion.[53] And most recently, in *Kitzmiller v. Dover Area School District*,[54] the district court, applying the endorsement test, permanently enjoined a Pennsylvania school board from maintaining a policy that required its biology teachers to read a statement disclaiming Darwin's theory of evolution as "not a fact," while promoting intelligent design as an alternative explanation to Darwin's theory.[55]

Here, we are interested in public school policies over teaching human origins in science classrooms. Teaching science in the science classroom passes *Lemon*'s first prong, because such conduct would have a secular purpose. By contrast, teaching something other than science in the science classroom is suspect, because it begs the question why an educator would inject nonscientific analysis into a science curriculum.[56] When an educator's actions have a religious purpose or religious effect, or have the purpose or effect of endorsing religion, they violates the Establishment Clause. In this context, it is essential to understand what constitutes science and the scientific method. To show that the explanation to be taught meets the definition of science goes a long way towards showing that its educational value is not religious.

2. The Theory of Evolution Meets the Definition of Science[57]

Science is the systemic study of the material universe and how it works. Science explains natural phenomena by reference to natural processes. In other words, science rejects supernatural explanations for reality. Science makes predictions about the natural world, and those predictions are capable of being proven untrue—falsifiable—through repeated testing against nature. Scientific explanations are tentative and always subject to revision through the scientific method.[58]

Science uses four building blocks—facts, hypotheses, laws, and theories—to construct its body of knowledge. Facts are confirmed observations, such as the fact that there are twenty-three pairs of chromosomes in the

human cell.[59] Hypotheses are testable statements about the natural world, often couched in the form of "if . . . then" statements, that tend to explain the relationship among two or more things. For example, this statement—if high levels of lead in children's blood are associated with poor IQ scores, then children who live in environments with high lead levels should have lower IQ scores—is a hypothesis.[60] Tested hypotheses build scientific explanations by eliminating incorrect approaches and encouraging confirmed approaches. Scientific laws represent the highest level of scientific generalization. They "identif[y] a class of regularities in nature from which there has been no known deviation after many observations or trials. [They are] often expressed mathematically." [61] Scientific laws do not explain phenomena, they predict—"they state what, under certain conditions, will happen."[62]

A scientific theory "is a well-substantiated, overarching explanation of some aspect of the natural world that can incorporate facts, laws, inferences, and tested hypotheses." [63] Scientists use theories as provisional model for "explaining the nature of, and relationships within, an entire set of related phenomena." [64]

There can be no doubt that the theory of evolution meets the definition of science. As most students of evolution understand, Darwin's theory of evolution is really five separate theories, or provisional models for explaining the nature of and relationships among life: (1) evolution—steady change of organisms over time; (2) common descent—all organisms descended from a common ancestor; (3) multiplication of species—species multiply by splitting into daughter species or through geographic isolation thereby contributing to organic diversity; (4) gradualism—evolutionary change takes place gradually; and (5) natural selection—evolutionary change comes about by individuals who survive because of well-adapted inheritable traits that give rise to the next generation.[65]

These theories meet the modern definition of science. Each theory indisputably relies on natural explanations for natural phenomena. Each makes predictions as well. For example, the theory of evolution or descent with modification predicts succession of forms and genetic lineages from ancestors to descendants. The fossil record evidences such evolutionary sequences, including an evolutionary sequence of humanoid bipedal ancestors who over time evolved larger brains, smaller teeth, and greater bipedal efficiency.[66] The theory of common descent similarly predicts such intermediate forms or "missing links," such as reptile-like mammals, birds, and fish. For

example, the discovery of an early ant confirmed predictions of evolutionary entomologists that ants evolved from wasp-like ancestors.[67] Natural selection predicts changes in the genetic make-up of special populations tailored to environmental circumstances, such as the rise of antibiotic-resistant bacteria, DDT-resistant insects and drug resistant viruses.[68]

Each of these models is also falsifiable. For example, the theory of evolution could be disproved by finding a constant (nonchanging) fossil record. Common descent could be disproved by finding non-DNA-based life. Gradualism could be disproved by the sudden production of a new species type. Speciation could be disproved by finding that DNA is perfectly copied from generation to generation and that variation is not possible by errors in replication or from environmental mitogens. The operation of natural selection could be falsified by showing that traits are not heritable. And several theories could be disproved by finding fossils in a time before or after their expected period, or in places that could not be explained.

Scientists have also employed the scientific method to come up with and test the various theories of evolution. It is well-documented that Darwin, for example, devised his theories through careful observation over a number of decades.[69] And, in fact, many of Darwin's theories arose from his rejection of other working views, such as the fixity of species and Bishop William Paley's argument from design, which posits that design exists and from there draws the inference that there must be a designer.[70]

Finally, Darwin's theories of evolution are now commonly accepted by the scientific community—not because they are true in some religious or faith-based sense but because they have withstood 150 years of repeated scientific challenges. Darwin's theories are useful in explaining the natural world in a manner that allows us to better understand that world. They have nothing to say about a supernatural creator of the universe or life—explanations that are expressly eliminated from consideration.

3. It Is Long Settled That Public Schools Cannot Forbid the Teaching of Evolution As Part of Their High School Science Curriculum[71]

During the early part of the twentieth-century, many state legislatures had passed laws requiring the teaching of creationism either alongside or instead of evolution.[72] By the mid-1960s, only three states (Tennessee, Arkansas, and

Mississippi) still maintained anti-evolution statutes. Of legal importance is the Arkansas Law, which was modeled after the Tennessee Anti-Evolution Act at issue in the *Scopes* monkey trial case.[73] The Arkansas law made it unlawful to teach in a state school "'the theory or doctrine that mankind ascended or descended from a lower order of animals,' or 'to adopt or use in any such institution a textbook that teaches this theory.'"[74] Violation of that law subjected public school teachers to dismissal.

In 1965, an Arkansas school teacher, Susan Epperson, challenged the constitutionality of the Arkansas law.[75] In *Epperson v. Arkansas*, the United States Supreme Court unanimously declared Arkansas' anti-evolution statute unconstitutional, because it had a religious purpose.[76] The Court explained that the statute violates the Establishment Clause because it "selects from the body of knowledge a particular segment which it proscribes for the sole reason that it is deemed to conflict with a particular religious doctrine; that is, with a particular interpretation of the *Book of Genesis* by a particular religious group."[77]

The Court rested its conclusion on the principle that the state and federal governments "must be neutral in matters of religious theory, doctrine, and practice."[78] As the Court famously put it – the "First Amendment mandates governmental neutrality between religion and religion, and between religion and nonreligion."[79] The Court acknowledged that American public education is largely committed to state and local authorities with power to prescribe state curriculum; based on that power, courts generally "cannot intervene in the resolution of conflicts which arise in the daily operation of school systems."[80] But where those conflicts "directly and sharply implicate basic constitutional values" court must intervene because "'[t]he vigilant protection of constitutional freedoms is nowhere more vital than in the community of American schools.'"[81] In the Court's words, "the First Amendment 'does not tolerate laws that cast a pall of orthodoxy over the classroom.'"[82]

Applying those principles, the Court found that the "[s]tate's undoubted right to prescribe the curriculum for its public schools does not carry with it the right to prohibit . . . the teaching of a scientific theory or doctrine where that prohibition is based upon reasons that violate the First Amendment."[83] Those unconstitutional reasons are, of course, the religious purpose of Arkansas' anti-evolution law. Relying in part on public appeals favoring

the passage of the anti-evolution statute, which depicted those favoring the law as theists and those favoring teaching evolution as atheists, the Court found that Arkansas public officials sought to prevent their "teachers from discussing the theory of evolution because it is contrary to the belief of [fundamentalist sectarian Christians] that the *Book of Genesis* must be the exclusive source of doctrine as to the origins of man."[84] The Court found irrelevant that the religious purpose of the Arkansas statute was not explicit.[85]

4. It Is Equally Well Settled That Public Schools Cannot Compel the Teaching of Creationism Alongside Evolution As Part of the High School Science Curriculum[86]

About the same time that the Supreme Court declared state anti-evolution statutes unconstitutional, religious proponents began to advocate the teaching of "creation-science" alongside evolution, claiming that there is scientific evidence to support the creationist view of the origins of Earth and life. According to proponents of creation science, educators fall into two categories: those who "belie[ve] in the inerrancy of the *Genesis* story of creation and of a worldwide flood as fact" and those who believe in evolution.[87] Creation science proponents further argued that it is only fair to give both views "balanced treatment" in public school science curriculum, because both views are supported by scientific data.[88]

The question whether state "balanced treatment" laws violate the Establishment Clause ultimately reached the United States Supreme Court in 1987. In *Edwards v. Aguillard*, the Supreme Court held unconstitutional Louisiana's Balanced Treatment Act, because it served no identifiable secular purpose and had as its primary purpose the advancement of a particular religious belief.[89] Acknowledging that the Act's stated purpose was to protect academic freedom, the Court concluded that the Act was not designed to further that purpose, but in fact restricted academic freedom by putting conditions on the teaching of evolution.[90] The Court observed:

> *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.*[91]

Rather, in the Court's view, the Act "has the distinctly different purpose of discrediting 'evolution by counterbalancing its teaching at every turn with the teaching of creationism.'"[92]

The Court also concluded that the Act was unconstitutional because it had a religious purpose: "to advance the religious viewpoint that a supernatural being created humankind."[93] The Court found that the statute's historical context[94] and its legislative history, including statements by the law's proponents, supported its conclusion.[95] Reviewing the evidence, the Court concluded that the purpose of the Act was "to restructure the science curriculum to conform with a particular religious viewpoint. Out of many possible science subjects taught in the public schools, the legislature chose to affect the teaching of the one scientific theory that historically has been opposed by certain religious sects."[96] In that way, the Court likened the Balanced Treatment Act—designed either to promote creationism or inhibit the teaching of a theory hostile to creationists—to the anti-evolution statute struck down in *Epperson*—designed to proscribe the teaching of a theory hostile to a particular religious viewpoint.[97] Summarizing its conclusions, the Court explained that the Establishment Clause "'forbids *alike* the preference of a religious doctrine *or* the prohibition of theory which is deemed antagonistic to a particular dogma.'"[98]

5. Public Schools May Not Teach "Intelligent Design" Alongside Evolution As Part of the High School Science Curriculum

It is now well accepted that teaching creation science is teaching religion, not science, and therefore unconstitutional.[99] The next question is whether teaching intelligent design alongside evolution is unconstitutional. Proponents of intelligent design, like their creation-science predecessors, have made teaching alternatives to or criticisms of evolution in public schools their legal battleground. ID proponents' attempts to federalize a right to teach intelligent design in public schools, to eliminate evolution from state science educational standards, to encourage school districts to reject biology textbooks that include evolution or at least to require that stickers be affixed to those textbooks declaiming the veracity of evolution as "a theory, not a fact" have not met with success.[100]

In fact, the only court to have examined that question has concluded that teaching intelligent design is unconstitutional. In *Kitzmiller v. Dover Area School District*,[101] a federal district court in Pennsylvania issued a memorandum opinion, declaring unconstitutional a resolution passed by the Dover Area School District stating that "'Students will be made aware of gaps/problems in Darwin's theory and of other theories of evolution including, but not limited to intelligent design. Note: Origins of Life is not taught.'"[102]

Applying the Supreme Court's endorsement test, which essentially asks whether an objective observer would view the school district's action as endorsing religion, the court in *Kitzmiller* explained that intelligent design's religious nature would be evident to the objective observer because of its overt appeal to a supernatural designer. The court initially noted that it must answer that question with the historical context of the dispute in mind—in this case, a century-long "strategy to weaken education of evolution by focusing students on alleged gaps in the theory of evolution."[103] The court thereby concluded that "both an objective student and an objective adult member of the Dover community would perceive [the School District's] conduct to be a strong endorsement of religion."[104] That conclusion is bolstered, in the court's view, by evidence running the gamut from expressly religious statements of those school board members who endorsed the policy to the hundreds of letters written by Dover area residents to local newspapers expressing their belief that the policy endorsed religion. Those letters were written by those who favored and disfavored the policy.

The court next turned to the question whether intelligent design is science, presumably to determine whether the Dover Area School District had a bone fide secular purpose in supporting its policy. The court concluded, based on the voluminous expert testimony, that intelligent design is not science for three main reasons. First, intelligent design "violates the centuries-old ground rules of science by invoking and permitting supernatural causation."[105] Second, intelligent design's central tenant—that some natural phenomena are irreducibly complex, defined as too complex to have arisen by natural selection or any other natural cause—employs a "flawed and illogical contrived dualism."[106] As the court pointed out, evidence in favor of intelligent design does not disprove evolution; and evidence that disfavors evolution does not prove intelligent design. Third, the court pointed out that intelligent design, which in its current reincarnation is mainly a nega-

tive attack on evolutionary theories (as opposed to a theory in itself), has been refuted by the scientific community as unscientific. Along these lines, the court notes that intelligent design is not accepted by the scientific community, has not generated peer-reviewed publications, and is not testable or falsifiable.[107] The court next showed that the school board's policy also fails to meet the *Lemon* test, because the policy has an overtly religious purpose and religious effects. The Court explained:

> *The disclaimer's plain language, the legislative history, and the historical context in which the [intelligent design] [p]olicy arose, all inevitably lead to the conclusion that Defendants consciously chose to change Dover's biology curriculum to advance religion. [The] wealth of evidence . . . reveals that the District's purpose was to advance creationism, an inherently religious view, both by introducing it directly under the label [intelligent design] and by disparaging the scientific theory of evolution, so that creationism would gain credence by default as the only apparent alternative to evolution.*[108]

Again the court's conclusion is bolstered by school board members' expressly religious statements, such as "'liberals in black robes' were 'taking away the rights of Christians'" and "words to the effect of '2,000 years ago someone died on a cross. Can't someone take a stand for him?'"[109] The court also found that two school board members tried to cover up the policy's overtly religious purpose by lying, at their depositions, about who donated sixty copies of the book *Of Pandas and People* (a book written by creationists and published by a Christian organization) to the school district. It turns out that two school board members, a school board member's relative and a local church were involved in the acquisition. The court further concluded that the school board's stated secular purpose—"[to] improv[e] science education and to exercise critical thinking skills"—was "simply irreconcilable with the record evidence."[110] Here the court noted that the school board failed to consult even a single scientific organization, but instead consulted religious institutions and legal counsel associated with those institutions.

For many of the reasons put forward by the court in *Kitzmiller*, is it unlikely that proponents of intelligent design will be successful in future legal battles because intelligent design is not a scientific theory but a religious argument—the modern design inference for the existence of God. As

with old theological claims that the existence of God can be inferred by the appearance of design in nature, intelligent design hinges primarily on the veracity of the following inference: The complex order observed in nature powerfully suggests that such complex order must have been designed by an intelligent agent—a supernatural power. In essence, intelligent design is an argument for the existence of God, an argument most similar to the fifth of St. Thomas Aquinas' five proofs for the existence of God.

But whether intelligent design's supernatural power is the Judeo-Christian God posited by Aquinas, the gods of the ancient world, or some other supernatural force, intelligent design simply is not within the domain of science for at least two reasons. First, that power is supernatural and thus excluded from study via the scientific method. Second, intelligent design is not a scientific theory because it fails to meet the definition of science. Intelligent design is not falsifiable and is not subject to revision by testing;[111] it has no predictive value; and it relies on supernatural rather than natural explanations for the natural world.

6. Nor May Public School Teachers Claim an "Academic Freedom" Right to Teach about "Intelligent Design"

It is well settled that public schools may restrict a public school teacher's ability to talk with students about religion during the school day. In that context, courts have uniformly acknowledged the school's compelling interest in avoiding an Establishment Clause violation as justifying abridging the teacher's free speech.[112] Accordingly, public school teachers may not claim an academic freedom right to teach their own personal religious beliefs, including a belief in creationism or intelligent design, in the classroom. For example, in *Peloza v. Capistrano Unified School District*, the court concluded that a public high school biology teacher did not have a free speech right or academic freedom right to deny the theory of evolution or to discuss his personal religious views in science class.[113] The court based its conclusion on the fact that a school teacher is not an "ordinary citizen" while in contact with students. Rather, the teacher

> *is one of those especially respected persons chosen to teach in the high school's classroom. He is clothed with the mantle of one who imparts knowledge and wisdom. His expressions of opinion are all*

> *the more believable because he is a teacher. The likelihood of high school students equating his views with those of the school is substantial. To permit him to discuss his religious beliefs with students during school time on school grounds would violate the Establishment Clause of the First Amendment. Such speech would not have a secular purpose, would have the primary effect of advancing religion, and would entangle the school with religion. In sum, it would flunk all three parts of the [*Lemon*] test.*[114]

Likewise, the court in *Webster v. New Lenox School District* came to a similar conclusion when it held that a public school teacher has no free speech right or academic freedom to reference his personal religious beliefs while teaching the state curriculum. In particular, the court found that the school district had an interest in preventing the teacher from rebutting that section of the biology textbook that explained that the world was over four billion years old, even though the teacher stated that the "discussion of religious issues in his class was only for the purpose of developing an open mind in his students."[115]

This principle—that academic freedom is not a defense to injecting personal religious beliefs into classroom discussion—is so ingrained in our constitutional jurisprudence that even subtle forms of inculcation have been barred from the classroom. For example, in *Roberts v. Madigan*, the court constitutionally barred a public school elementary teacher from subtly communicating his religious views to students by keeping a Bible on his desk and other religious books on his shelves during the school day; reading from the Bible in front of his students during their daily silent reading period; and displaying a religious poster on his classroom wall.[116] The court explained that the school's decision to prohibit the teacher's silent Bible reading was "reasonably related to legitimate pedagogical concerns" because "students, parents, and members of the public might reasonably perceive [the teacher's Bible reading] to bear the imprimatur of the school."[117] As constitutional law and religion law scholar Professor Steven G. Gey simply put it, "[p]erception is the key to all endorsement claims, and the perception that a teacher's religious views represent an official position is inevitable."[118]

In articulating the rationality of the courts' approach, Professor Gey further observed that courts have embraced the policy argument that a contrary rule

> *would permit widespread disobedience of the Supreme Court's school prayer precedents by allowing public school officials to permit teachers to disguise religious speech as 'individual' religious speech. In such cases, the public would clearly (and often correctly) perceive that the teachers were fulfilling the unstated desires of government officials who are prohibited from officially endorsing the community's dominant faith.*[119]

It is also important to note that, even though a public school may constitutionally prohibit a teacher from interjecting religious views into the classroom, that school cannot normally terminate a teacher solely because of his or her religious beliefs, because such an action would violate Title VII of the Civil Rights Act.[120]

7. Public Schools May Limit the Extent to Which Students Raise Religious Evidence against Evolution in Science Class Discussion in the Same Manner By Which Those Schools Limit Other Class Discussions

The question whether students may raise religious evidence against evolution in science class discussions is a tricky one because it potentially raises both student free speech and school Establishment Clause issues. As a free speech issue, it is important to treat the student objections as neutrally as possible. In other words, schools should treat religious objections to evolution in the same manner that it treats any off-point comments made in class.[121]

In this context, student speech is generally analyzed under one of two doctrines[122]: *Tinker v. Des Moines Independent Community School District*[123] or *Hazelwood School District v. Kulmeier.*[124] Under *Tinker*, public schools may not suppress student speech unless school officials reasonably forecast that the student expression will "material[ly] and substantial[ly] interfer[e] with schoolwork or discipline."[125] Under *Hazelwood*, public schools may regulate school-sponsored student speech or activities, even absent a finding of substantial disruption, "so long as [the school's] actions are reasonably related to legitimate pedagogical concerns."[126]

There is no dispute that students who try to disrupt science class by peppering teachers with questions about creationism may be censored under *Tinker.* The real question is whether schools may also suppress the speech of

the polite student with genuine questions. The answer is yes. Public schools that wish to curtail nonscientific objections to evolution may credibly invoke *Hazelwood*'s less restrictive standard. Along these lines, the Supreme Court has also recognized that "[t]he determination of what manner of speech in the classroom or in school assembly is inappropriate properly rests with the school board."[127]

To elaborate, under *Hazelwood*, school-sponsored speech comprises "expressive activities" that "may fairly be characterized as part of the school curriculum, whether or not they occur in a traditional classroom setting, so long as they are supervised by faculty members and designed to impart particular knowledge or skills to student participants and audiences."[128] Accordingly, in cases where students seek to discuss alternatives to evolution in science class, the school would have a legitimate pedagogical purpose in ensuring that instructional time reserved for science is not wasted on nonscientific discussion.

On the flip side, public schools make themselves vulnerable to an Establishment Clause violation if they permit discussion about religious objections to evolution during science class. For example, a reasonable observer could view a teacher's failure to restrict frequent student discussion about creationism as an endorsement of religion. Even schools allowing some discussion in a content- and viewpoint-neutral way accompanied by disclaimers of any school endorsement remain vulnerable to lawsuit—perception reigns. The legally safer policy to adopt is to disallow off-topic comments in class. In applying that policy, teachers should explain to students that their religious objections are not part of the curriculum, and gently steer students to alternative ways at school to express their religious viewpoints.[129] That course avoids the Establishment Clause problem altogether.

8. Creationism and Intelligent Design Cannot Be Taught in Public Schools, but Objective, Academic Discussion about Religion, Such As Its Role in History, Is Permissible in Some Contexts As Long As the Approach Is Educational and Not Devotional

In *Epperson v. Arkansas*, in the context of declaring state anti-evolution laws unconstitutional, the Supreme Court recognized that not all religious in-

struction in public school violates the Establishment or Free Exercise Clauses. The Court explained that "[w]hile study of religions and of the Bible from a literary and historic viewpoint, presented objectively as part of a secular program of education, need not collide with the First Amendment's prohibition, the State may not adopt programs or practices in its public schools or colleges which 'aid or oppose' any religion."[130] Nevertheless, if the "purpose" or "primary effect" of the enactment is to advance or inhibit religion, then "the enactment exceeds the scope of legislative power as circumscribed by the Constitution."[131]

Additionally, in *School District of Abington Township v. Schempp*,[132] in the context of declaring unconstitutional mandatory Bible reading in public schools, the Supreme Court approvingly discussed the idea that public schools can instruct students on the role that religion has played in history and its role in historical controversies so long as the school does not teach religious dogma as true or attempt to inculcate religious values:

> *In addition, it might well be said that one's education is not complete without a study of comparative religion or the history of religion and its relationship to the advancement of civilization. It certainly may be said that the Bible is worthy of study for its literary and historic qualities. Nothing we have said here indicates that such study of the Bible, or of religion, when presented objectively as part of a secular program of education, may not be effected consistently with the First Amendment.*[133]

Indeed, teaching about religion is an important aspect of civic education because it promotes intellectual reasoning skills, knowledge of religious history, informed evaluation of government laws and other action affecting religion, and understanding the role religion plays in public debate and decision making.[134] Given the case authority, so long as the course is taught in an objective manner, and neither teachers nor students determine that the class discussions should turn either directly to advocating any one particular religious belief or directly to criticizing the beliefs of any one religion, a course on the Bible as literature or a course that surveys the world's religions is likely to be constitutionally permissible.

By contrast, the Supreme Court has also granted "public school officials extensive authority to dictate the contents of the public school cur-

riculum and regulate any other 'expressive activities that students, parents and members of the public might reasonably perceive to bear the imprimatur of the school.'"[135] For example,

> *[u]nder current law, public school authorities may, therefore, regulate or even prohibit certain student and teacher speech "to assure that participants learn whatever lessons the activity is designed to teach, that readers or listeners are not exposed to material that may be inappropriate for their level of maturity, and that the views of the individual speaker are not erroneously attributed to the school.*[136]

Along these lines, public schools are generally permitted to restrict the religious speech of elementary and middle school students during "Show and Tell," to avoid an Establishment Clause problem.[137]

Busch v. Marple Newtown School District[138] is illustrative. In that case, a kindergarten student's mother sought to read the Bible to her son's classmates as part of her son's "About Me Unit." The court concluded that prohibiting the mother from reading the Bible to her son's kindergarten class was viewpoint discrimination, because the school had prohibited it specifically because of its religious nature.[139] But the court concluded that the school did not violate the mother's free speech rights because the school had a heightened interest in prohibiting an Establishment Clause violation.[140] The court noted that this was so because kindergarten students viewed another student's parent as an authority figure, much like the students viewed their teacher as an authority figure, and, consequently, a kindergarten student could perceive the event as school-endorsed religious speech.[141]

End Notes - Chapter Four

1 Bd. of Educ., Island Trees Union Free Sch. Dist. No. 26 v. Pico, 457 U.S. 853 (1982).

2 *See, e.g.*, Virgil v. Sch. Bd. of Columbia County, Florida, 862 F.2d 1517, 1520-25 (11th Cir. 1989) (school board was permitted to remove textbook from the curriculum because of the school board's objections to the vulgarity and sexuality discussed in the book without violating the First Amendment, because such actions were in relation to a legitimate pedagogical purpose under *Hazelwood*) (citing Hazelwood Sch. Dist. v. Kuhlmeier, 484 U.S. 260 (1988)).

3 457 U.S. 853 (1982).

4 *Id.* at 864 (quoting Br. for Petitioners, Bd. of Educ., Island Trees Union Sch. Dist. No. 26 at 10).

5 *Id.* at 869.

6 268 U.S. 510 (1925).

7 268 U.S. 510, 534-35 (1925).

8 The cases that established this principle illustrate the type of statutes that the Court is willing to find unreasonable. See Farrington v. Tokushige, 273 U.S. 284, 298-99 (1927) (finding unconstitutional Hawaii law that restricted private foreign language schools); Meyer v. Nebraska, 262 U.S. 390, 397, 402-03 (1923) (finding unconstitutional state law prohibiting "teach[ing] any subject to any person in any language [other] than the English language" and prohibiting teaching a foreign language to children who have not yet passed eighth grade).

9 *See, e.g.*, Grove v. Mead School Dist. No. 354, 753 F.2d 1528, 1533-34 (9th Cir. 1985) (essentially allowing opt-out in holding that school's use of religiously objectionable book as part of English curriculum did not violate students' Free Exercise rights where students were not forced to read book, participate in classroom discussion of that book or even to be present during that discussion).

10 827 F.2d 1058 (6th Cir. 1987).

11 *Id.* at 1063.

12 *Id.* at 1064.

13 *Id.* (citing Epperson v. Ark., 393 U.S. 97, 106 (1968)).

14 *See, e.g.*, Parker v. Hurley, 514 F.3d 87, 105-07 (1st Cir. 2008) (following *Mozert* and concluding that school did not violate parents' or students' free exercise rights where teacher read to students book that was intended to teach children about gay marriage and diversity because parents still retained other educational options for their children, such as private school and homeschooling. Further, because school never required children to affirm a belief in the correctness of gay marriage, there were no facts of constitutional magnitude for the parents to have stated a cause of action for coercion and compulsion under *West Virginia Board of Education v. Barnette*); Fleischfresser v. Dir. of Sch. Dist. No. 200, 15 F.3d 680, 689-90 (7th Cir. 1993) (discussing *Mozert* and holding that, although parents' religious beliefs were sincere, school district directors were entitled to judgment as a matter of law regarding parents' Free Exercise challenge against the school for using the *Impressions Reading Series* as a supplemental reading series in kindergarten through fifth grades, because directors neither precluded parents from meeting their religious obligations to instruct their children nor coerced or compelled the children or their parents to do or refrain from doing anything of a religious nature). *See also* McCollum v. Bd. of Educ., 333 U.S. 203, 235 (1948) (Jackson, J., concurring) ("If we are to eliminate everything that is objectionable to any [religious group] or inconsistent with any of

their doctrines, we will leave public education in shreds. Nothing but educational confusion and a discrediting of the public school system can result from subjecting it to constant law suits.").

15 *Mozert*, 827 F.2d at 1074 (Boggs, J., concurring).

16 But federal law does require that parents or guardians have the right to inspect "[a]ll instructional materials, including teacher's manuals, films, tapes, or other supplementary material which will be used in connection with any survey, analysis, or evaluation as part of any applicable [federal] program. Protection of Pupil Rights Amendment (PPRA), 20 U.S.C. § 1232h (2009). Further, federal law also provides that "[n]o student shall be required, as part of any applicable program, to submit a survey, analysis, or evaluation that reveals information concerning . . . (3) sex behavior or attitudes; . . . (6) religious practice, affiliations, or beliefs of the student or the student's parent…" *Id.* A sample form to aid schools in complying with this law is available at U.S. Dep't of Educ., Family Policy Compliance Office ("FPCO"), PPRA Model Notice and Consent/Opt-Out For Specific Activities, http://www.ed.gov/policy/gen/guid/fpco/pdf/ppraconsent.pdf (last visited Jun. 19, 2009).

17 Parker v. Hurley, 514 F.3d 87, 100-07 (1st Cir. 2008) (concluding that the school district did not have to give parents notice of the presentation of materials the parents found religiously objectionable and that parents did not have a Free Exercise right to have their children opt-out of stories that teachers read to elementary school students that involved children who had homosexual parents).

18 *See, e.g.*, Tex. Educ. Code § 26.010 (2009) (permitting parents to remove their "child temporarily from a class or other school activity that conflicts with the parent's religious or moral beliefs if the parent presents or delivers to the teacher of the parent's child a written statement authorizing the removal of the child from the class or other school activity," so long as the request is made neither to "avoid a test or to prevent the child from taking a subject for an entire semester," nor "to exempt a child from satisfying grade level or graduation requirements in a manner acceptable to the school district and the agency."); Cal. Educ. Code § 51938 (2009) (requiring that schools give parents notice of parents' "right to excuse their child from all or part of comprehensive sexual health education, HIV/AIDS prevention education, and assessments related to that education" no fewer than fourteen days before such education is scheduled; however, Cal. Educ. Code § 51932 provides that such excusal "does not apply to description or illustration of human reproductive organs that may appear in a textbook, adopted pursuant to law, on physiology, biology, zoology, general science, personal hygiene, or health," or "to instruction or materials that discuss gender, sexual orientation, or family life and do not discuss human reproductive organs and their functions."); *see generally* Eric A. DeGroff, *Parental Rights and Public School Curricula: Revisiting Mozert After 20 Years*, 38 J.L. & Educ. 83, 128-32 (2009) (discussing states that have opt-out provisions by state statute).

19 Brown v. Hot, Sexy and Safer Productions, Inc., 68 F.3d 525, 539 (1st Cir. 1995) (concluding that parents had no privacy, substantive due process, or free exercise right to require that the school permit the parents' children to opt out of the school's sex education program). *Accord* Leebaert ex rel. Leebaert v. Harrington, 193 F. Supp. 2d 491, 497-502 (D. Conn. 2002), *aff'd* 332 F.3d 134, 143-44 (2d Cir. 2003) (concluding that student had no hybrid claim under *Employment Div., Dept. of Human Resources of Ore. v. Smith*, 494 U.S. 872 (1990) to opt out of health education class because student and his parents found the material religiously objectionable, and that school did not violate student's constitutional rights by giving him a failing grade for not attending class). *See also* CN v. Ridgewood Bd. of Educ., 430 F.3d 159 (3d Cir. 2005) (Alito, J.) (finding no Free Exercise violation where students participated in voluntary survey distributed by the school that had sexual subject

matter); *accord* Fields v. Palmdale Sch. Dist., 427 F.3d 1197 (9th Cir. 2005) (no Free Exercise violation where students participated in a voluntary survey that included sexual topics, and finding that parents have no right to object to anything in the curriculum). *See also* Morrison v. Bd. of Educ., 49 F. Supp. 2d 937 (E.D. Ky. 2000), *rev'd on other grounds*, 507 F.3d 494 (6th Cir. 2007) (concluding that parents had no right to exempt their child from mandatory diversity training on homosexuality).

20 Spence v. Bailey, 465 F.2d 797, 798-800 (6th Cir. 1972) (citing W.Va. Bd. of Educ. v. Barnette, 319 U.S. 624 (1943)).

21 McCollum v. Bd. of Educ., 333 U.S. 203.

22 Zorach v. Clauson, 343 U.S. 306, 307-08 (1952).

23 Swanson ex rel. Swanson v. Guthrie Indep. Sch. Dist. No. I-L, 135 F.3d 694, 700 (10th Cir. 1998).

24 *Zorach*, 343 U.S. at 311.

25 Pierce v. Sullivan-West Sch. Dist., 379 F.3d 56, 58-60 (2d Cir. 2004) (upholding the state statute but noting that the court would find the statute unconstitutional on an "as applied" challenge if the plaintiffs could prove that the school officials actually coerced the students to attend the released time program); Lanner v. Wimmer, 662 F.2d 1349, 1357-64 (10th Cir. 1981) (finding that release time program violated the Establishment Clause as applied because the school district's actions evidenced an excessive entanglement with religion under *Lemon* when it not only required student aids to go to the seminaries to pick up attendance slips during school hours, but also gave students elective credit towards graduation for attending the religious courses when it did not grant such credit for other religious groups).

26 *See* Settle v. Dickson County Sch. Bd., 53 F.3d 152, 153-55 (6th Cir. 1995) (public school could constitutionally restrict student's religious speech rights by rejecting student's research paper on a religious topic where paper did not fit within the confines of the assignment, including being researchable, so long as teacher's motivation for prohibiting topic was not expressly because of its religious nature); Duran v. Nitsche, 780 F. Supp. 1048, 1054 (E.D. Pa. 1991) (similar). *See also* DeNoyer v. Merinelli, 1993 U.S. App. LEXIS 30084, at *2-3 (6th Cir. 2003) (prohibiting second grade student from showing videotape of her singing a religious song during a church service as part of a class assignment where students were supposed to present the class with something about themselves did not violate the student's free speech rights because permitting the student to show the video would defeat one of the purposes of the assignment—to get the students comfortable with public speaking).

27 *See* Bannon v. Sch. Dist. of Palm Beach County, 387 F.3d 1208, 1211-14 (11th Cir. 2004) (concluding that school district did not violate student's free speech rights when it required her to remove the religious words and symbols from a mural project in the public school, because these murals were a closed public forum and related to a curricular activity under *Hazelwood*). *See generally* John E. Taylor, *Why Student Religious Speech is Speech*, 110 W.Va. L. Rev. 223, 227-28 n. 16 (2007) (collecting cases and noting that the lower federal courts have generally read *Hazelwood* "to cover all student speech that is part of the curriculum (e.g., speech in classroom discussions, presentations, or student assignments.")).

28 Peck v. Baldwinsville Sch. Dist., 426 F.3d 617, 628-31 (2d Cir. 2005), *cert. denied* 547 U.S. 1097 (2006).

29 452 F. Supp. 2d 723 (E.D. Mich. 2006).

30 O.T. v. Frenchtown Elem. Sch. Dist. Bd. of Educ., 465 F. Supp. 2d 369 (D.N.J. 2006) (determining that elementary school did not have a valid concern about violating the Establishment Clause and therefore engaged in viewpoint discrimination and violated student's free speech rights when it prohibited her from singing the song

"Awesome God," at a school talent show, because the talent show was open to the public and non-curriculum related, and therefore a limited open forum that made viewpoint discrimination impermissible).

31 This overview (III.B.1.) is largely taken from and originally published in Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 220-23 (2006).

32 U.S. Const. amend. I.

33 Cantwell v. Conn., 310 U.S. 296, 303 (1940); *accord* Santa Fe Indep. Sch. Dist. v. Doe, 530 U.S. 290, 301 (2000).

34 Edwards v. Aguillard, 482 U.S. 578, 582-83 n.3 (1987).

35 Bd. of Educ., Island Trees Union Free Sch. Dist. No. 26 v. Pico, 457 U.S. 853, 864 (1982).

36 Epperson v. Arkansas, 393 U.S. 97, 104 (1968); *see also* Wallace v. Jaffree, 472 U.S. 38, 52-55 (1985); Everson v. Bd. of Educ. of Ewing, 330 U.S. 1, 15-16 (1947).

37 403 U.S. 602 (1971).

38 *Id*. at 612.

39 *Id*.

40 *Id*. at 613.

41 Edwards v. Aguillard, 482 U.S. 578, 583 (1987).

42 McCreary County v. ACLU, 545 U.S. 844 (2005).

43 *Id*. at 860, n. 10.

44 465 U.S. 668, 687-94 (1984) (O'Connor, J., concurring).

45 *Id*. at 690.

46 *Id*.

47 492 U.S. 573 (1989).

48 *Id*. at 493-94 (citing *Lynch v. Donnelly*, 465 U.S. 668. 687 (1984) (O'Connor, J., concurring)).

49 *See* Edwards v. Aguillard, 482 U.S. 578 (1987) (striking down anti-evolution law as having religious purpose); Epperson v. Arkansas, 393 U.S. 97 (1968) (striking down balanced treatment law as serving no identified secular purpose and promoting religion). The *Edwards* Court did invoke the endorsement concept, stating that "[i[f the law was enacted for the purpose of endorsing religion, 'no consideration of the second or third criteria [of *Lemon*] is necessary." 482 U.S. at 585 (quoting Wallace v. Jaffree, 472 U.S. 38, 56 (1985)).

50 185 F.3d 337 (5th Cir. 1999).

51 *Id*. at 346-47.

52 390 F. Supp. 2d 1286, 1305-06 (N.D. Ga. 2005), *vacated on other grounds and remanded*, 449 F.3d 1320 (11th Cir. 2006).

53 *Id*. at 1305-06, 1312.

54 400 F. Supp. 2d 707 (M.D. Pa. 2005).

55 *Id*. at 708-10, 714-46, 766.

56 *See* Wallace v. Jaffree, 472 U.S. 38, 56 (1985) (to survive an Establishment Clause challenge, the government must have a "clearly secular purpose").

57 The following section (III.B.2.) is taken largely from Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 224-32 (2006).

58 *See generally* Nat'l Acad. of Sciences, Inst. of Med., Science, Evolution, and Creationism, (2008) *available at* http://books.nap.edu/html/11876/SECbrochure.pdf;

McLean v. Ark. Bd. of Educ., 529 F. Supp. 1255, 1267 (E.D. Ark. 1982); Amicus Curiae Br. of 72 Nobel Laureates et al. (*available at* 1986 WL 727658), *Edwards*, 482 U.S. 578; Amicus Curiae Br. of Natl. Acad. of Sci., *Edwards*, 482 U.S. 578 (*available at* 1986 WL 727667); Stephen Hawking, A Briefer History of Time (2005); Eugenie C. Scott, Evolution v. Creationism (2005); James D. Watson, The Double Helix: A Personal Account of the Discovery of the Structure of DNA (1968).

59 Eugenie C. Scott, Evolution v. Creationism 12 (2005)

60 *Id*. at 12.

61 Amicus Curiae Br. of Natl. Acad. of Sci. at 7, *Edwards*, 482 U.S. 578 (*available at* 1986 WL 727667, *7-*8).

62 Eugenie C. Scott, Evolution v. Creationism 13-14 (2005).

63 PBS, *What Is the Nature of Science? available at* http://www.pbs.org/wgbh/evolution/educators/teachstuds/pdf/unit1.pdf (last visited Mar. 13, 2009).

64 Amicus Curiae Br. of Natl. Acad. of Sci. at 7, *Edwards*, 482 U.S. 578 (*available at* 1986 WL 727667, *7).

65 This explanation comes from ERNST MAYR, One Long Argument: Charles Darwin and the Genesis of Modern Evolutionary Thought 36-37 (1991).

66 Jerry Coyne, *The Faith That Dare Not Speak Its Name*, New Republic, Aug. 22 & 29 2005, at 21-33, *available at* http://pondside.uchicago.edu/cluster/pdf/coyne/New_Republic_ID.pdf (last visited Jun. 26, 2009).

67 Ernst Mayr, What Evolution Is 13-19, 22, 25 (2001).

68 Jerry Coyne, *The Faith That Dare Not Speak Its Name*, New Republic, Aug. 22-29 2005, at 21-33, *available at* http://pondside.uchicago.edu/cluster/pdf/coyne/New_Republic_ID.pdf (last visited Jun. 26, 2009).

69 Ernst Mayr, One Long Argument: Charles Darwin and the Genesis of Modern Evolutionary Thought 1-34 (1991).

70 For a more in-depth discussion of the argument from design, see Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 232, 234-37 (2006).

71 The following section (III.B.3.) is taken largely from Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 244-49 (2006).

72 David Masci, The Pew Forum, From Darwin to Dover: An Overview of Important Cases in the Evolution Debate 2 (2005), *available at* http://pewforum.org/publications/reports/evolution-cases.pdf (Sept. 22, 2005) (last visited Jun. 26, 2009).

73 Scopes v. State, 289 S.W. 363, 363-64 (Tenn. 1927). In *Scopes*, the Tennessee Supreme Court concluded that Tennessee's anti-evolution statute presented no conflict with the Establishment Clause. The Court nevertheless overturned the conviction of John Scopes, a public school teacher who taught evolution in violation of the Tennessee statute, on grounds that the trial judge had improperly usurped a jury role of assessing a fine in excess of $50. *Id*. at 367 (citing Tenn. Const. art. 6, § 14).

74 Epperson v. Ark., 393 U.S. 97, 99 n.3 (1968) (quoting Ark. Code Ann. §§ 80-1627, 80-1628 (1960 Repl. Vol.); 1929 Ark. Acts 1).

75 *Id*. at 98-100.

76 *Id*. at 106.

77 *Id*. at 103.

78 *Id.* at 103-04.
79 *Id.* at 104 & n.12.
80 *Id.* at 104.
81 *Id.* (quoting Shelton v. Tucker, 364 U.S. 479, 487 (1960)).
82 *Id.* at 105 (quoting Keyishian v. Bd. of Regents, 385 U.S. 589, 603 (1967)).
83 *Id.*
84 *Id.*
85 *Id.* at 108-09, nn. 15-18.
86 The following section (III.B.4.) is taken largely from Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 249-54 (2006).
87 McLean v. Ark. Bd. of Educ., 529 F. Supp. 1255, 1260 (1982).
88 *See, e.g., id.* at 1274.
89 482 U.S. 578, 596-97 (1987).
90 *Id.* at 586 & n.6.
91 *Id.* at 586.
92 *Id.* at 589 (quoting Aguillard v. Edwards, 765 F.2d 1251, 1257 (5th Cir. 1985)).
93 *Id.* at 591.
94 The Court referred to the "historic and contemporaneous link between the teachings of certain religious denominations and the teaching of evolution," noting that it was this link that concerned the Court in *Epperson*. *Id.* at 590.
95 *Id.* at 591 n. 12 to 593 n.14.
96 *Id.* at 593.
97 *Id.*
98 *Id.* (quoting Epperson v. Ark., 393 U.S. 97, 106-07 (1968)) (emphasis added in *Edwards*).
99 *Cf.* Kent Greenawalt, *Establishing Religious Ideas: Evolution, Creationism, and Intelligent Design*, 17 Notre Dame J.L. Ethics & Pub. Policy 321, 370, 394 (2003).
100 For a concise review of the history of the modern ID movement, see Anne Marie Lofaso, *Does Changing the Definition of Science Solve the Establishment Clause Problem for Teaching Intelligent Design as Science in Public Schools? Doing an End-Run Around the Constitution*, 4 Pierce L. Rev. 219, 256-65 (2006).
101 400 F. Supp. 2d 707 (M.D. Pa. 2005).
102 The following discussion of *Kitzmiller* is taken largely from Posting of Anne Marie Lofaso, *Bush Appointee Strikes Down Dover ID Policy as Unconstitutional available at* http://www.acslaw.org/node/10472 (Dec. 21, 2005, 11:05 EST).
103 *Dover*, 400 F. Supp. 2d at 716.
104 *Id.* at 734.
105 *Id.* at 735.
106 *Id.*
107 *Id.*
108 *Id.* at 747.
109 *Id.* at 752.
110 *Id.* at 762.
111 Intelligent design is not falsifiable because it relies on ad hoc explanations. For example, proponents of intelligent design have used the bacterial flagellum to illustrate the existence of irreducibly complex systems and have argued that such a claim is falsifiable because "a scientist could go into the laboratory, place a bacterial species lacking a flagellum under some selective pressure (for mobility, say), grow it

for ten thousand generations, and see if a flagellum . . . was produced. If that happened, my claims would be neatly disproven." Michael Behe, *Philosophical Objections to Intelligent Design: Response to Critics*, Discovery Institute, (July 31, 2000), *available at* http://www.arn.org/docs/behe/mb_philosophicalobjectionsresponse.htm. But that experiment would not falsify intelligent design because there is no way to tell, from this experiment, whether the intelligent agent was actually working inside the laboratory.

Proponents of intelligent design have argued that finding an irreducibly complex biological system would present a "powerful challenge to Darwinian evolution. Since natural selection can only choose systems that are already working, then if a biological system cannot be produced gradually it would have to arise as an integrated unit, in one fell swoop, for natural selection to have anything to act on." Michael J. Behe, Evidence for Intelligent Design from Biochemistry, Speech Delivered at Discovery Institute's God and Culture Conference (Aug. 10, 1996), *available at* Center for Science and Culture, http://www.discovery.org/a/51 (last visited Jun. 13, 2009). In other words, according to proponents of intelligent design, the observable complexity of natural systems is so complex that natural selection could not have brought it about and some intelligent force must instead have brought it about. But all that shows is that the theory of evolution by natural selection is falsifiable—not that intelligent design is falsifiable.

112 Lamb's Chapel v. Ctr. Moriches Union Free Sch. Dist., 508 U.S. 384, 394-95 (1993); Widmar v. Vincent, 454 U.S. 263, 271 (1981).

113 Peloza v. Capistrano Unified Sch. Dist., 37 F.3d 517, 522-23 (9th Cir. 1994).

114 *Id.* at 522 (citing Lemon v. Kurtzman, 403 U.S. 602 (1971)).

115 Webster v. New Lenox Sch. Dist. No. 122, 917 F.2d 1004, 1006 (7th Cir. 1990).

116 921 F.2d 1047, 1049, 1059 (10th Cir. 1990).

117 *Id.* at 1056-58; *see id.* at 1057 (quoting Hazelwood v. Kuhlmeir, 484 U.S. 260, 260, 271 (1988)).

118 Steven G. Gey, *When is Religious Speech Not "Free Speech"?*, 2000 U. Ill. L. Rev. 379, 397 (2000). Professor Gey further observed, in summarizing the law, that regardless of "how vociferously the teachers disavow official sanction of their views, . . . the students and the public will see the link anyway, and the Establishment Clause is, therefore, violated." *Id.*

119 *Id.* at 397-98.

120 *See* 42 U.S.C. § 2000e-2(a)(1) (2009). For example, in *Cowan v. Strafford R-VI School District*, 140 F.3d 1153, 1155-58 (8th Cir. 1998), the court upheld a jury verdict in a Title VII case where the teacher alleged that school board members were motivated by a religiously discriminatory motive (animus for the teacher's New Ageism) in failing to renew her teaching contract. In that case, the school board had received numerous parental complaints about the teacher after she had sent home a letter to her second-grade students, telling them, to rub their "magic rock" as an outward sign of self-confidence, and to think good thoughts about them.

121 Several of the ideas from this section are adopted from Thomas Hutton, *Student Religious Rights: Survival Tips for School Boards, available at* BridgeBuilders, *From Battle Ground to Common Ground*, *available at* http://www.bridge-builders.org/RCW6.07.html (last visited Jun. 29, 2009). This section also benefitted from discussions with Professor John Taylor.

122 For a more in-depth discussion about student speech, see Chapter 5.

123 393 U.S. 503 (1969).

124 484 U.S. 260 (1988).

125 *Tinker v. Des Moines Indep. Cmty. Sch. Dist.*, 393 U.S. 503, 511 (1969).
126 *Hazelwood*, 484 U.S. at 273.
127 Bethel Sch. Dist. No. 403 v. Fraser, 478 U.S. 675, 683 (1986).
128 *Hazelwood*, 484 U.S. at 271.
129 *See* Chapter 3 (discussing the Equal Access Act).
130 Epperson v. Ark., 393 U.S. 97, 106 (1968). In this context, the Court explained that the First Amendment's "prohibition is absolute. It forbids alike the preference of a religious doctrine or the prohibition of theory which is deemed antagonistic to a particular dogma." *Id.* at 106-07. The court further explained that "'the state has no legitimate interest in protecting any or all religions from views distasteful to them.'" *Id.* at 107 (quoting Joseph Burnstyn, Inc. v. Wilson, 343 U.S. 495, 505 (1952)).
131 *Id.* (quoting School Dist. of Abington v. Schempp, 374 U.S. 203, 222 (1963)).
132 374 U.S. 203 (1963).
133 *Id.* at 225. *See also id.* at 300 (Brennan, J., concurring) ("[t]he holding of the Court today plainly does not foreclose teaching about the Holy Scriptures or about the differences between religious sects in classes in literature or history. Indeed, whether or not the Bible is involved, it would be impossible to teach meaningfully many subjects in the social sciences or the humanities without some mention of religion."); *id.* at 306 (Goldburg, J., concurring) ("[g]overnment must inevitably take cognizance of the existence of religion and, indeed, under certain circumstances the First Amendment may require it to do so. And it seems clear to me ….that the Court would recognize the propriety of…teaching about religion, as distinguished from the teaching of religion in the public schools.").
134 *See generally* Jay D. Wexler, *Preparing for the Clothed Public Square: Teaching About Religion, Civic Education, and the Constitution*, 43 Wm. and Mary L. Rev. 1159 (2002).
135 Steven G. Gey, *When is Religious Speech Not "Free Speech"?*, 2000 U. Ill. L. Rev. 379, 394 (quoting Hazelwood Sch. Dist. v. Kuhlmeirer, 484 U.S. 260, 271 (1988)).
136 *Id.* (quoting Hazelwood Sch. Dist. v. Kuhlmeirer, 484 U.S. 260, 271 (1988)).
137 Notably, junior high school and high school students ordinarily do not participate in show and tell. As the Court observed in *Mergens* (discussed in Chapter 3), older students have the cognitive abilities to differentiate between speech that the school is merely permitting and speech that the school endorses; it is therefore possible that the adolescent student would have a viewpoint discrimination claim if the confines of the class presentation were broad enough to permit a religious topic. *See also* Chapter 6 for a discussion of these limitations for class projects.
138 Busch v. Marple Newtown Sch. Dist., 2007 WL 1589507 (E.D. Pa. May 31, 2007) (unreported), *aff'd*, 567 F.3d 89 (3d Cir. 2009).
139 2007 WL 1589507, at *7, *aff'd*, 567 F.3d at 104.
140 2007 WL 1589507, at *10, *aff'd*, 567 F.3d at 97.
141 2007 WL 1589507, at *8, *11, *aff'd*, 567 F.3d at 97.