

*1 THIS IS THE TRAP THE COURTS BUILT: DEALING WITH THE ENTANGLEMENT OF RELIGION AND THE ORIGIN OF LIFE IN AMERICAN PUBLIC SCHOOLS

Jana R. McCreary [FN1]

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*2 I. Introduction

Over eighty years ago, debates began concerning what we should teach our schoolchildren regarding origins of life in their science classes. [FN1] The *3 debate continues today, and even a new twist has been added: intelligent design. [FN2] But new twist or old, courts seem to fear offering any theory to schoolchildren that might have been part of the original creationism movement. Courts are concerned that the government not endorse or show any preference over a religions idea regarding the origin of life. [FN3]

But each time we present a theory of life's origin to our schoolchildren, we are showing preference. And by actually looking at the theories and what they represent, as well as looking at what religion provides for people, we can see that the government, even in limiting the teaching to only evolution, is endorsing a religious ideology. A message exists behind this endorsement - the same message people feared would exist if we allowed schools to teach biblical creationism theories or even intelligent design theory. The message itself is an endorsement. Accordingly, the government is endorsing a particular religious belief - the belief that no supernatural being exists. In effect, this endorsement not only advances that particular religious belief and inhibits other religious beliefs, but also it shows an utter failure of maintaining the government's requisite neutrality involving religion and the government.

This Article argues that by endorsing the teaching of only evolution, the government is, in essence, endorsing a view on religion: that a higher power does not exist. In doing so, Part II first defines both religion and science and shows the overlap and crossover of the two. It next identifies and defines varying theories of life's origin by using the fundamental understanding of each theory. Part III reviews the background of the legal *4 arena involving what we teach our schoolchildren, looking at tests used for the constitutional questions at stake, then looking at the case law as it has developed. Finally, Part IV addresses the premise that to embrace the large-scale concept of macroevolution, the concept that differing species share common ancestors, is to embrace a theory of an absence of a higher power. Doing that, in itself therefore, must violate the Establishment Clause.

II. Defining the Terms

Before delving into the legal interpretations of what could and should be taught in America's public schools, an understanding of core terms should occur. Because to level

the playing field of dialogue, terms must be defined and understandings established about just how core concepts are being identified. [FN4]

A. Science versus Religion

For some, science crashes head-on into any religious notions or thoughts. For others, the two ideas and concepts can live in harmony. Still others insist that in any scientific discussion, religion has no place whatsoever. Based on looking at the wide array of what these concepts cover, I disagree with that school of thought insisting science must be completely separate from religion, especially when the scientific issue inherently involves issues that incorporate religious areas of thought. Based on the descriptions of these concepts as discussed below, this Article presupposes that to reference “science” is not to unequivocally omit any discussion with religious tones or even undertones.

1. Science and Religion: The Core Concepts

Many proponents of teaching only evolution argue that any concept other than evolution is not science and thus does not belong in the science classroom. [FN5] But narrowly restricting the concept of science limits *5 education, understanding, and respect of what is not fully known.

a. Science

“Science” means, from its Latin translation, “to know.” [FN6] This meaning though, is quite broad. So moving from this broad meaning, scientists often rely on what they refer to as “modern science,” and put qualifications on what it means “to know”: (1) the information must be objective - a fact that exists as a fact although it could be interpreted subjectively; and (2) nature must be explained by natural processes. [FN7] Science then, is “a process of interpreting and understanding nature without” resorting to using anything supernatural for an explanation. [FN8]

Other scientists, however, explain science differently, assuming that only that which can be “observed or measured is [subject] to scientific investigation.” [FN9] For this group, that investigation can - and will - lead to the discovery of operational rules about any force. [FN10] And if something cannot be so investigated such that measurable evidence can be collected, then it is not part of science. [FN11] Therefore, “explanations of natural phenomena that are not based on evidence but on myths, personal beliefs, religious values, and superstitions are not scientific.” [FN12] Likewise, under this idea of science, science, limited to using measurable evidence, cannot investigate or explain religion. [FN13]

Many scientists, though, expand on the above definition and acknowledge that science can be abstract - focusing on material that is not easily measurable. [FN14] The underlying issue for this group addresses conflicts that arise when trying to explain the natural world. [FN15] The theories we have used to explain the natural world have gone through continual change. [FN16]*6 Thus, “[s]cience, by its nature, is changeable.”

[FN17] This broader definition of science admits weaknesses in trying to understand our natural world. But it also acknowledges that science, “as a series of ideas,” changes not just science itself, “but often . . . whole areas of human thought.” [FN18]

To define science as only that which can be presently concretely measured, we restrict ourselves to simple explanations that are not allowed to reach beyond what is currently known. If, instead, we accept the broader expanded idea that science itself changes over time, we then are able to take into account both what is today considered to be known along with what could be considered supernatural - concepts that could provide possible answers to questions we cannot answer otherwise. By using this expanded definition, we open the doors of our ability to understand the world around us. [FN19]

b. Religion: Theists & Nontheists

The concerns of constitutional debates over what is taught in public schools directly involve “religion”: the government, acting through its public schools, cannot make any “law respecting an establishment of religion, or prohibiting the free exercise thereof” [FN20] What is meant by “religion,” then, often defines what raises constitutional questions. [FN21]

Determining what is meant by religion, like science, involves varying degrees of thought and ideas. Warren Matthews, Emeritus Professor of Philosophy and Religious Studies at Old Dominion University, opines that central to religion is a thought that humans all encounter a central problem. [FN22] The religion, then, considers the identified central problem; the *7 focus of that religion is about the solution of that problem. [FN23]

Others define religion as “something people do together to face urgent problems and to resolve them by appealing to truths that seem self-evident to them.” [FN24] Religion, to some, is inherent within man's nature, and every human is in some way concerned with religion. [FN25] Still others describe it as that “longing for a ‘more’ that the world of everyday experience cannot requite.” [FN26]

Of course, the philosophical meaning of religion is not core to the constitutional issues. [FN27] Instead, those issues typically involve some sort of theology - a “study of religious faith, practice, and experience; esp [ecially] the study of God and of God's relation to the world[.]“ [FN28] And within theology lie both theists and nontheists.

A theistic belief involves a belief in one or more deities or gods. [FN29] One theistic belief that is central to the origin of life as taught in public schools debate is Christianity. Christianity is a monotheistic religion, involving belief in only one god, and it includes a belief that Christ was divine. [FN30]

However, Christianity is not the only theistic view to be considered when addressing origin of life questions. Other monotheistic religious views include religions such as Judaism and Islam. [FN31] Polytheistic religions - those involving a belief in more than

one deity - should also be included, such as Hinduism and the beliefs of Native Americans. [FN32] In addition, beliefs that address no deity or god - nontheistic views - need to be considered.

*8 Examples of nontheistic beliefs include belief systems such as Buddhism, Taoism, and Confucianism. [FN33] In addition to those systems, atheism and agnosticism represent nontheistic beliefs--terms often brought up when those with fundamental religious beliefs discuss evolution. Atheism is the belief that any supernatural being does not exist. [FN34] Agnosticism, on the other hand, represents the belief that the existence of a supernatural being is unknown. [FN35]

Under the Atheism doctrine, science, as traditionally considered, is heralded as necessary for a “free, open inquiry” and required for humans to improve their lives. [FN36] Atheists also argue that “[r]eligion is anti-science,” and Atheists promote their freedom from religion but also their freedom from theism - from any god theory. [FN37] Atheists argue their beliefs do not represent a religion because the doctrine accepts only what can be or has been proven through science. [FN38] However, by using “religion” as defined above, as “something people do together to face urgent problems,” [FN39] Atheism meets that definition of religion - as a “devotion to an acknowledged ultimate reality” [FN40] This reality, for atheists, is that no god or supernatural being exists, and thus nothing has an effect on our *9 lives. [FN41] Further, atheists meet as a group to discuss their beliefs (beliefs that no god or supernatural power exists) and their approach to the world. [FN42]

Agnosticism, on the other hand, represents the belief that the existence of a supernatural being, or God, can be neither proved nor disproved, and therefore, belief in such a deity is uncertain. [FN43] Agnosticism, then, is not a theology; it does not represent any belief in a supernatural being. [FN44] Agnosticism deals only with the natural world without debating what sort of supernatural beings might exist. [FN45]

2. Science or - or and? - Religion: Deciding what to Teach

Before discussing the debate over what could or should be taught in a public school classroom, we need first to look at the two somewhat conflicting views of what science can be, and determine which to use. If we restrict ourselves to a narrow interpretation of sharing with students only that information that is readily testable and observable, we limit the breadth of what we can share with our children.

When a history teacher guides the study of historic events with a group of students, those students are not limited to studying only factual timetables and records. Instead, the study of history should help students understand their current world and events of the past. This understanding involves more than rote memorization of when events happened; it addresses why things happened.

Therefore, students need also to be exposed to possible historical happenings, and they should review social cultures and psychology of peoples to better understand

everything that was happening around a time *10 period. [FN46] Having proof of what occurred is not always the necessary presupposition before students are able to consider why things happened and how the past may affect the present. [FN47] The study, and more importantly the understanding, of history involves interpretation of that history, and that interpretation can, and most often does, involve reviewing the points of views of a variety of leaders in the field who espouse different ideas, understandings, and beliefs about history. [FN48]

Likewise, the study of science, and specifically the study of areas without existing concrete proven answers, should not be limited to the bare study of “factual” issues that have been or can be measured. Instead, turning to subjects traditionally considered “scientific,” the inherent nature of not having all the answers to all questions requires studying areas with open minds and abstract thought. If science means “to know,” then the study of science should involve the journey of attaining that knowledge, and - even, and perhaps especially - any path of understanding involves asking questions when those questions are difficult to define or even more difficult to answer.

Therefore, to explicitly restrict the study of science only to matters that have been capable of measurement equates to restricting a student's ability to ask the hard questions and develop the ability to think, rationalize, and analyze issues in an educational setting. [FN49] Doing so will not further any goals of education: to promote understanding, critical thinking, and the ability to think and reason. [FN50]

*11 Of course, defining science too narrowly works for those who support teaching only evolution when considering the origin of life. [FN51] But this viewpoint actually will lead, eventually, to greater questions involving the constitutionality of teaching the origin of life. This narrow view of science discounts too much the other explanations for the origin of life and chooses one explanation - a nontheistic one - over others.

Professor Phillip Johnson at the University of California, Berkeley, argues that science now is associated with “materialists” who believe that God is nothing more than an idea that humans have created. [FN52] These persons, materialists, tend to use explanations of evolution to prove that things can be created without any assistance or guidance of a supernatural being. [FN53] And that, in and of itself, states a sort of ideology: if God is nothing more than an idea, then God, as believed by many, does not actually exist. Further, by using only explanations of evolution to explain our existence promotes the idea that no guidance or higher power is necessary for life to exist, to change, or to begin. This view adopts and supports the views of those who believe in no deity at all.

Based on all of the above, the view adopted here, for this discussion, maintains that the goals of education - to expand learning, knowledge, and capacity for thought - will best be furthered if we do not restrict the study of science to only that which can be measured and evaluated concretely. Accordingly, the study of science will not be viewed as necessitating the automatic omission of any religious concepts or theories. After all,

the concept at the core of science's explanation of the origin of life directly supports one such theory, albeit a nontheistic one.

*12 B. Origins of Life--The Theories [FN54]

Next in any discussion regarding the historical conflicts over teaching differing theories about the origin of life on earth should be an understanding of the terms used to describe the various theories used to explain life's origin. While some blending has occurred, and overlap exists, to better establish a clear discussion, a basic definition of each theory must be reviewed and clarified.

1. Creationism and its Progeny

At the core of the debate is creationism. But depending on personal beliefs, creationism may represent a different idea to one person than what it represents to another. Many people believe in only a direct and literal interpretation of the Bible. [FN55] Some believe in a blend of theories and ideas, basing the essential concepts in which they believe on the creation account in Genesis. [FN56] And others believe that the world was created, but they do not know how or by whom - although, to them it was certainly by some being. [FN57] But the basic and fundamental view of creationism - that which is based on a literal interpretation of the Bible's creation story - is the one essential to understanding the teaching debate - the argument to separate religious views from scientific ones. Additionally, other concepts such as creation-science and intelligent design address the alternate views of creation, and those will be discussed in turn below.

*13 a. Creationism - Young-Earth Creationists

Reviewing the most common understanding of creationism involves the literal interpretation of the Bible's book of Genesis. [FN58] Genesis, translated from Greek to actually mean "the beginning," [FN59] provides the story that many people believe describes the beginnings of human life: "In the beginning, God created the heavens and the earth." [FN60] Strict creationists believe this story as a fact - perhaps not proven scientifically, but to those believers, their faith fills in any gaps. [FN61] Under this origin of life theory, the story is, as told in Genesis, that God created the earth and all life forms in a traditional twenty-four hours per day, six-day period (resting on the seventh day). [FN62]

This view of life's origin leads to a belief that the earth has existed for only a short period of time - less than ten thousand years (compared to alternative views that the earth has existed for billions of years). [FN63] Those who hold this view are often accordingly dubbed "young-Earth creationists." [FN64]

Strict creationists, then, reject any notion that life has evolved or that life forms have changed over time in any significant way. [FN65] In believing a literal interpretation of Genesis, strict creationists believe that the very first humans and all animals, were made - in their current form, by God. [FN66]*14 Animals, plant life, and humans were made

originally in the same form in which they exist today and only God controls any changes - not effects of science or natural conditions. [FN67]

Although this belief is most often associated with a literal interpretation of Genesis, this belief of creationism is not limited to a belief in the Christian or Jewish God. [FN68] The belief encompasses all beliefs that life appeared from nothing as an “act of creation” (ex nihilo) or that life - and some sense of order - emerged from what had previously been only chaos (demiurge). [FN69] Fundamental to any such views, however, is that a supreme being, a higher power, or a deity of some sort, guided this creation or emergence. [FN70]

This essential belief in a supreme being guides and unites creationists. According to information from the Supreme Court, the Institute for Creation Research (part of the Christian Heritage College in San Diego, California) was established to facilitate an “urgent need . . . to return to belief in a personal, omnipotent Creator . . .” [FN71] A similar group, The Creation Research Society, of Ann Arbor, Michigan, requires its members to ascribe to a belief that the Bible is scientifically true. [FN72] These sorts of views, along with others, provide the fuel supporting the argument that evolution and creationism theories directly conflict. [FN73]

*15 However, over time in the twentieth century, with the increasing awareness and discussion of evolution and scientific explanations for life's origin and changes to life forms over time, strict creationists found themselves losing ground in establishing the content of the material that would be taught to their children. [FN74] Battles were being fought in courtrooms, and creationists were losing. [FN75] Therefore, in the 1970s, many strict creationists began to promote themselves as creation scientists. [FN76]

b. Creation-science

After a pivotal 1968 Supreme Court decision that struck down laws forbidding the teaching of evolution, [FN77] creationism proponents wanted to be sure their views were incorporated into the public school classrooms. [FN78] To facilitate this cause, a group in California created the “Science Framework for California Public Schools,” which argued the two predominant theories should be viewed together: “Some of the scientific data, (e.g., the regular absence of transitional forms) may be best explained by a creation theory, while other data (e.g., transmutation of species) substantiates a process of evolution.” [FN79] Thus, the concept of “creation-science” was born - and distinguished from biblical creationism. [FN80]

The traditional biblical view of creationism takes the literal interpretation of Genesis as fact, needing and seeking no further explanation for life's origin. [FN81] Creation-scientists, on the other hand, continue to adhere to a belief in the theory that God created life. [FN82] However, most creation-scientists also purport that they can use scientific *16 techniques to prove that the Genesis account of creation occurred. [FN83]

For example, creation-scientists argue that science proves the great flood occurred by arguing that a subterranean pool of water existed under the Earth's crust, and that water erupted at one point, creating the great flood as described in Genesis. [FN84] They argue the evidence supports that this sudden eruption of water brought about the great flood and resulting fossil remains, arguing against the theory that the fossil remains provide support for evolution having occurred over billions of years. [FN85]

In reaching their conclusions and explanations of occurrences, creation-scientists often differentiate between the initial origin of life and later issues of cause-and-effect. [FN86] In their view, life was created from nothing, and therefore, was not the effect of any natural or scientific cause. [FN87] However, all later issues involving life - after it was created from nothing - were the effect of some scientific cause. [FN88]

With this new marriage of origin theories - creation as explained by science - a new group formed to spread its message: the Creation-Science Research Center. [FN89] The primary purpose of this group was, and is, to address the public school system's education of life's origin. [FN90] However, even with the scientific slant that creation-scientists would put on their theory of life's origin, the Supreme Court would later hold that the doctrine was not scientific, but instead represented a religious doctrine because creation-scientists maintain the belief that life began as the result of a *17 supernatural being. [FN91]

2. Evolution: Micro- and Macroevolution Differences

In its most simplistic definition, evolution is “descent with modification.” [FN92] But evolution consists of two distinct schools of thought: microevolution, the general and broad sense of small-scale change within a species; and macro-evolution, the large-scale version of evolution suggesting that different species have a common ancestor. [FN93]

Both concepts of evolution came to the forefront of attention after Charles Darwin's *On the Origin of Species by Means of Natural Selection* was published nearly 150 years ago. [FN94] Although the foundation for evolution had been laid before Darwin's book, [FN95] Darwin's theory, of course, received more attention and acclaim. [FN96] Subsequent to Darwin's book, long-held beliefs about how humans first appeared on earth were shaken. [FN97]

The essential point of Darwin's theory argued that upon overpopulating an environment, species would engage in a struggle for existence. [FN98] Once in this struggle, the process of natural selection would *18 take over. [FN99] This selection would be based on certain traits giving some members of a species an advantage; retaining those traits would lead to that species's survival. [FN100] Because the members of that species with that trait survived, genetics then assure future generations will possess the preferred trait. [FN101] Any traits that would have hurt the species were thus selected out. [FN102]

Many people do not argue that this sort of evolution, described above, in some form occurs or has occurred. [FN103] But just what is meant by “evolution” when related to the origin of life itself - the very beginning of life - is debated: is it a hard-line principle explaining the origin of life or merely a part of life that occurred after life was created? [FN104] The competing theories of macro- and microevolution address this debate.

*19 a. Microevolution

The predominant and basic overall theory of microevolution - small-scale change - argues that species adapt over time. [FN105] Based on environment, changes in the environment, and biological responses, species adapt to better survive, and these adaptations are inherited in offspring and future generations. [FN106] Furthering this idea, the National Science Teachers Association states that in its broadest sense, evolution “can be defined as the idea that the universe has a history: that change through time has taken place.” [FN107]

What microevolution does not address is the initial coming into existence of life on Earth. Because the question of how life originally began is not addressed, many people - even those who believe in a close-literal interpretation of the Bible - accept this concept of microevolution. [FN108] But the concept of evolution also includes that of macroevolution - the large-scale idea that promotes the scientific theory that all living beings diverge from shared ancestors. [FN109] This concept of evolution is that which raises the central concerns in the origin of life debate.

*20 b. Macroevolution

In viewing macroevolution, all species are considered to have descended from a common ancestor. [FN110] This evolution involves not changes within a species, but rather the change over time of one species into another or into two new species. [FN111] This concept of evolution is that which causes most discord in the evolution/creationism debate, specifically as it relates to the origin of man. [FN112]

If man originated from the same ancestor as every other life form, and if plant and animal life all descended from one life form, then evolution guided the development of human life form. [FN113] And evolution, by definition, is based on “random mutation and natural selection.” [FN114] As one Harvard biology professor phrased it:

Modern biology has arrived at two major principles that are supported by so much interlocking evidence as to rank as virtual laws of nature. The *21 first is that all biological elements and processes are ultimately obedient to the laws of physics and chemistry. The second principle is that all life has evolved by random mutation and natural selection. [FN115]

Macroevolution, then, involves the idea that humans have evolved over the last five to eight million years. [FN116] This broad concept of evolution directly contradicts the views held by strict creationists “who believe that the [E]arth is only a few thousand years old” and that life appeared suddenly. [FN117] This is the broad concept of

evolution considered in this Article when considering the core focus of the debate about what should be taught in public schools.

3. Intelligent Design

The newest theory among the many is intelligent design. [FN118] Contrary to the arguments promoted by many, intelligent design does not rely on a particular religious belief. [FN119]

a. Explaining Intelligent Design

The essential concept of intelligent design is that life and life systems are so complex that an intelligent force or being must have been involved in their origin. [FN120] Included in the concept is the idea that life, as seen and observed, shows signs of having been designed by intelligence--the design theory. [FN121] From this design theory, many see intelligent design as the study *22 of the patterns and of the signs that indicate design. [FN122] And this, they argue, represents a theory of scientific notions. [FN123]

Intelligent design does not exclude or attempt to discredit the theory of evolution, at least not the microevolution theory. [FN124] Many intelligent design proponents even use the story of the peppered moth as examples of how species change and adapt. [FN125] Some intelligent design proponents even accept and embrace the idea of macroevolution. [FN126] But intelligent design rejects the thought that the species' adaptations occur randomly. [FN127]

b. Intelligent Design: Is it God-Talk?

Many people argue that the proper placement of intelligent design would be as a progeny of creationism - after all, that characterization is central to how intelligent design is being treated in the court system. [FN128] However, creationism and creation-science have a central theme in common: a belief, to some degree, of the story as told in Genesis and in the Jewish or Christian God. [FN129] Some persons who believe intelligent design also believe in the same faith as Christians or Jews, although to a different degree than fundamentalist believers, such belief is not required. [FN130] This distinctly separates intelligent design from any creationistic viewpoint. [FN131]

*23 Thus, the key difference between intelligent design and creationist-type views involves identifying the creator and that creator's role. [FN132] While intelligent design does support a belief in some sort of "intelligent" designer, contrary to the thoughts of many, intelligent design does not require a belief in any particular deity. [FN133] In fact, intelligent design does not even require the belief in a single deity. [FN134] Accordingly, a person of the Hindu faith, a polytheistic faith, could agree with the concept of intelligent design as easily as one from the Christian faith. The intelligent design concept does not promote any particular religion - only that some force had a role in life's origin. [FN135] Therefore, intelligent design is not a strict creationistic viewpoint, and it is likewise not a Christian creationistic viewpoint.

c. Intelligent Design: Narrowing the Focus

As explained above, intelligent design is not the proponent of any particular religious viewpoint. [FN136] Because intelligent design does not promote a belief in the Jewish or Christian God, creationists reject the concept. [FN137] Trapped in a circular meaning, though, evolutionists continue to argue that intelligent design is nothing but creationism in disguise. [FN138] These evolutionists are missing a key of the central focus of intelligent design.

For creationists, intelligent design represents beliefs similar to natural theology. [FN139] Natural theologians, like those who embrace intelligent design, believe a supernatural being is present and guided creation of life. [FN140] However, neither natural theologians nor intelligent design *24 believers hold specific across-the-board beliefs about the supernatural being responsible for the creation. [FN141]

The focus, then, of intelligent design is not a particular religion. Instead, although intelligent design is not, as discussed, a “sneaky” form of creationism, the core of intelligent design is not only design, but also purpose. Because life is seen as so complex and involved, the adaptations of life forms must have some purpose - a “means to an end.” [FN142] Because life is so complex, then, it must exist with a purpose. And because it exists with a purpose, it could not have simply appeared and developed based on random occurrences. [FN143]

This focus on purpose is the key dividing line between believing the origin of life is due only to evolution and its concepts, or based on some supernatural being's design and guidance. But the evolution proponents focus on this “purpose” argument and contend it is based only on religion. [FN144] They further argue that the only reason intelligent design has supporters is due to creationists trying to argue for a belief in God, and that succumb to the “deeply religious nature” of the United States will lead to the demise of science and understanding of things in a scientific light. [FN145] But others counter that believing that one cannot hold scientific views while also expressing religious opinions shows science as a dogma, as a *25 belief system that cannot stand in harmony with other belief systems. [FN146]

4. Other Belief Systems' Theories

The theories of life's origin are not limited to those discussed above. Other cultures, religions, and groups support several other theories and concepts about how life began on earth. In defining what it means to teach one theory over another, a brief look at these other theories is warranted.

Although creationism in the United States traditionally is associated with Christianity, the world's largest religion, both Islam and Judaism share the common ancestry of Abraham (the patriarch of all three faiths) and the belief in a monotheistic creator. [FN147] Judaism shares the book of Genesis with Christianity, and thus both

religions, at their fundamental levels, share a belief in that theory of life's origin. [FN148] Islam, on the other hand, views Genesis and other Biblical books “mainly as interesting stories.” [FN149] But central to Islam is a belief that Allah, God, is all-powerful. [FN150] Allah created the universe and controls everything in it - to the smallest detail. [FN151]

Another of the world's prominent religions, Hinduism, sees life's origin as founded on traditional Hindu theology. One of the sacred texts of Hinduism, the Vedas, includes an account of how the universe began. [FN152] According to this theory, a supernatural being was involved: Purusha, sometimes simply referred to as That One. [FN153] The universe came into being based on “division and cosmic sacrifice” of this being. [FN154] However, Purusha is not necessarily one of the Hindu gods, for they came into *26 existence only after the world was created; thus, the Hindu gods were not creators themselves. [FN155] But the Hindu origin theory does hold the belief that the world was created. [FN156]

Hinduism, though, was challenged in India in the fifth century b.c.e., and that challenger became the founder of Buddhism. [FN157] But in the development of Buddhism, early Buddhists rejected the idea of a creator. [FN158] For this reason, many hold the opinion that Buddhism is a nontheistic religion. [FN159] Being so, Buddhism - favoring a naturalistic explanation of the universe - is closer to traditional science and the theory of evolution than any other religion. [FN160]

Still other views exist. Many Native Americans traditionally believed in a henotheistic world - one in which one supreme deity existed but ruled over other, lower deities. [FN161] The common thought of life's origin is that spirits fashioned life as we know it but continue to intervene in current change, and humans, rather than being created per se, sprang forth from within the earth. [FN162] Along with Buddhism, two other movements in China sought to explain life: Taoism and Confucianism. In religious Taoism (meaning “the Way”), Taoism is the cosmic force that defines all other phenomena. [FN163] Confucianism likewise is not concerned with deities or focused on gods. [FN164]

5. Conclusion

Life's origin can be and has been explained in numerous ways. Some of these explanations, such as that involving creationism, are based outright on a particular organized religion and its beliefs. Other views, like that held by those of the Hindu faith, have as foundations the basic beliefs of a *27 religious people, but these views are not integral to that religion's structure or foundation. [FN165] Still other views, such as intelligent design, are based on a belief system in the underlying meaning or purpose of life. [FN166] Moreover, other views, such as the explanation that life evolved based on random mutations, although not expressly advocating for a purpose of life, outright provide support against any notion that life indeed has a purpose.

Because each of these theories espouses concepts that speak to the question of why we exist, then each represents an ideology. Fundamental to the idea that no purpose exists is the concept that, accordingly, no supreme being exists. After all, a supreme being represents an intelligent force, a plan, a purpose. Central to ideologies about religion is the belief in a supreme being - whether God or some such higher power exists in the world. The court system, though, cannot seem to understand the integral nature of belief systems addressing the origins of life and ideologies about the existence of God - a fundamental religious question.

III. Origin of Life as Taught in Public Schools: Courts' Analysis

In looking at courts' treatment of the origin of life, by no means is the treatment of law involving the teaching of the origin of life consistent. Courts have moved from one extreme to another, and each end of the spectrum they have visited is indeed extreme. This section details this history of courts' treatments of teaching the origin of life.

Eighty years ago, states had laws in place that prohibited teaching theories that suggested humans evolved from any lower order of animal. [FN167] Forty years later, the Supreme Court stepped in and struck down one of these "monkey laws." [FN168] So as the pendulum began to swing in the opposite direction, states moved to balanced treatment statutes, requiring equal time for different views. [FN169] But the momentum behind the push for science and the fear of establishing religion forced the pendulum back up to the other side; the balanced-treatment positions failed to satisfy courts. [FN170]

Today, the fear of establishing religion in schools continues to have a *28 strong grasp on the status of our science classes - in spite of a heavy influence of religion in the nation for many people. In fact, the pendulum seems to have swung possibly even farther away from balance as most recently courts have addressed the concept of teaching "Intelligent Design" - a theory that seems to combine science and some belief in a higher power. [FN171] Those courts have refused to allow this blend of science and religion to enter the classroom. [FN172]

But in reviewing legal issues addressing religion and public schools, the courts seem to have become trapped in a cycle of review: once something is viewed as religious it can never be viewed objectively again. To understand this requires a look back at what has happened with courts and cases involving religious establishment and entanglement, as well as cases involving the teaching of the origin of life.

A. Establishment Clause: Judicial Tests for Analysis

"Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof." [FN173] These seemingly simple words from the First Amendment to the Constitution have plagued courts for years. As society shifts its focus of religion's entanglement in daily life, courts' foci and treatment of these words shift also. When the issues arise, our Supreme Court has been using one of two methods by

which to review the constitutionality of actions involving religion: the Lemon test [FN174] and the endorsement test. [FN175]

1. The Lemon Test

For over thirty years now, courts have used the test set out in *Lemon v. Kurtzman* [FN176] - the Lemon test - to determine the constitutionality of statutes *29 challenged under the First Amendment's establishment clause. [FN177] The test, developed over time and set out in *Lemon*, uses three prongs to analyze a law to determine whether the statute in question violates the Establishment Clause. [FN178] First, the statute in question must have been enacted or adopted under a “secular . . . purpose.” [FN179] Second, the primary effect of the statute must “neither advance[] nor inhibit [] religion[.]” [FN180] “[F]inally, the statute must not [bring about] an ‘excessive entanglement of government and religion.’” [FN181] If a statute fails to satisfy any of the three prongs, it violates the Establishment Clause. [FN182]

Under the first prong of the Lemon test, a court looks to the purpose behind legislation. [FN183] “The purpose prong . . . asks whether [the] government's actual purpose is to endorse or disapprove of religion.” [FN184] If the law is intended to serve a religious purpose, intent to endorse religion is clear. [FN185] But the presence of a secular purpose will not overcome an intended religious purpose; a court will consider actual underlying religious purposes as well. [FN186] A court may even look behind the stated meaning of a statute to ensure the stated purpose is “sincere and not a sham.” [FN187] If a statute is enacted with no new secular purpose, but merely with a stated purpose that is already served by other legislation, then the secular nature of the statute may be insufficient to overcome additional religious purposes *30 behind that same legislation. [FN188] Thus, for a statute to survive scrutiny under the first prong of the Lemon test, it must have an actual valid secular purpose that is not already served by other legislation. [FN189]

Under the Lemon test's second prong, the “primary effect [of the statute] . . . [may] neither advance[] nor inhibit[] religion” [FN190] The test under this prong is objective, and it asks how the legislation affects the reasonable person, no matter the statute's purpose. [FN191] The intent of the statute is not considered - just the perception. [FN192] But simply having a religious effect of advancing or inhibiting religion is not enough. [FN193] Instead, the statute must have the effect that sends the message that the government has advanced or inhibited religion. [FN194]

Finally, the third prong prohibits “‘excessive government entanglement with religion.’” [FN195] In *Lemon*, the Court added this prong to its previous “purpose and effect,” and with the addition of this prong, a *31 court could consider degrees of involvement of religion in government actions. [FN196] Under this prong, a court may examine “the character and purposes of the institutions that are benefited, the nature of the aid that the State provides, and the resulting relationship between the government and the religious authority.” [FN197] This interplay, and the degrees to which any interplay exists, will determine whether the statute violates the Establishment Clause. [FN198]

The Lemon test still receives mention and is often still applied whenever issues involving the Establishment Clause arise. It has even been applied as recently as 2005. [FN199] But another test has been used more often in the last fifteen years: the endorsement test. [FN200]

2. The Endorsement Test

After setting out the three prongs of the Lemon test in 1971, the Court relied on it in most of its Establishment Clause jurisprudence. [FN201] But in 1989, the majority of the Court implemented another test: the endorsement *32 test. [FN202] In using this test, the Court has looked specifically at whether the challenged practice actually “endorses” religion. [FN203] And in recent years, the endorsement test seems to have been used in lieu of the Lemon test. [FN204]

The Court discussed this issue of endorsement at length in 1989, reviewing the history of the Court's analysis of cases that focused on the constitutionality of statutes based on any endorsement of religion. [FN205] For example, in 1985 the Court held that a statute that had the purpose of endorsing prayer activities violated the Establishment Clause. [FN206] Likewise, the Court concluded that the purpose of a state's creationism act - an act requiring the teaching of biblical creationism - endorsed religion and was therefore unconstitutional. [FN207]

The Court used the term “endorsement” based on its prior use of the term, analogizing to terms such as “favored” and “preferred.” [FN208] Thus, if a law showed particular favor towards religious beliefs, it might be held to endorse religion. [FN209] Or if a law showed preference for one religion over another, it likely violated the Establishment Clause. [FN210] According to the Court though, not only may a law not endorse particular religious belief, a law also cannot “promote . . . religious theory . . . against the militant opposite.” [FN211]

In 2000, the Court applied the endorsement test to the issue of school-sponsored prayer at high-school football games. [FN212] The Court stated, “[i]n cases involving state participation in a religious activity, one of the relevant questions is ‘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 schools.’” [FN213] Then, quoting the case from which the Lemon test's second prong was derived - that the primary effect of the statute may neither advance nor inhibit religion - the Court *33 further clarified as follows: “School sponsorship of a religious message is impermissible because it sends the ancillary message to members of the audience who are nonadherents ‘that they are outsiders, not full members of the political community, and an accompanying message to adherents that they are insiders, favored members of the political community.’” [FN214] The Court concluded that such a message actually encouraged prayer, which in essence endorsed religion. [FN215]

3. Where We Stand Today

Both the Lemon test and the endorsement test continue to be used by courts in Establishment Clause jurisprudence, but neither is used consistently. [FN216] The predictability that either test will be applied to a new case is less than solid:

A superficial review of current religion clause jurisprudence would likely lead to the conclusion that the area is in tumult. There is no underlying theory of religious freedom that has captured a majority of the Court, and the Court's commitment to its announced doctrines is tenuous at best. Every new case accepted for argument presents the very real possibility that the Court might totally abandon its previous efforts and start over. [FN217] In a recent Supreme Court case, the Court noted that it often applied the Lemon test only after invalidating a statute under another approach. [FN218] The Court even characterized its use of the Lemon test as happening only “sometimes,” [FN219] acknowledging that shortly after Lemon, the Court stated the Lemon factors were “no more than helpful signposts.” [FN220]

Accordingly, many courts use both tests. And until the Supreme Court actually chooses one over the other, perhaps indeed those courts should continue to do so.

*34 B. Teaching the Origins of Life: The Cases and Stories Behind Them

The Supreme Court and states' highest courts have analyzed the Establishment Clause in many areas involving religion and schools. [FN221] But the focus in this Article is on that analysis addressing what is taught in schools regarding the origins of life. School prayer, moments of silence, and tax issues aside, this section addresses how presenting a theory to schoolchildren could be considered an establishment of religion - at least in how the Court defines establishment of religion.

The road to our present state of court opinion shows a path that has turned several times. The force behind the journey began as a crusade to keep schoolchildren from being taught the ideas promoting “atheism” and thoughts that would poison their “minds and hearts.” [FN222] But eventually the laws that addressed what information could, and should, be presented in public schools were reviewed strictly under the Constitution and not based on public morality.

1. Bringing Evolution into the Classroom

a. Where it all Began: Tennessee's Monkey Trial

In 1925, “monkey” became a money-making and attention-grabbing word in Dayton, Tennessee. [FN223] The monkey trial had begun. [FN224] For earlier that year, the state of Tennessee had enacted a law prohibiting teaching evolution:

[I]t shall be unlawful for any teacher in any of the . . . public schools of the State . . . to teach any theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a lower order of animals. [FN225]*35 Although the governor signed the law and stated, “The people have the

right, and must have the right, to regulate what is taught in their schools,” he implied the law would not be an active statute. [FN226] The governor was wrong.

The law became effective immediately when it was signed in March 1925, and only two months later, the American Civil Liberties Union (the “ACLU”) began its campaign to test the new law. [FN227] The ACLU advertised for a teacher who was willing to test the law, and in an attempt to help test the law while also trying to revive a struggling local economy, a few citizens of Dayton decided to help. [FN228]

John Thomas Scopes taught at the local high school, and he agreed to help in the ACLU's cause. [FN229] Upon agreeing to participate, Scopes admitted that he had used a textbook for a biology review that “prominently featured evolution,” and a warrant was issued for his arrest. [FN230] The ACLU, originally seeking a quiet challenge to the law, now faced a criminal trial - and a great deal more publicity. [FN231]

With hundreds of spectators, [FN232] live radio broadcasts, and daily newspaper updates around the globe, the world paid attention to this small trial in Tennessee. [FN233] William Jennings Bryan helped prosecute, and *36 Clarence Darrow led the defense team - this being his “only case for which [he] would ever volunteer his [legal] services.” [FN234] At the end of the trial, the defense asked that the jury find Scopes guilty. [FN235] But that was after eleven days had elapsed - days when the court opened with a prayer, when the judge “cited Darrow for contempt of court,” when Darrow “questioned Bryan about his ‘fool ideas’” (testimony later expunged from the record as “irrelevant”), and when applause and shouts of “Amen” regularly interrupted the proceedings. [FN236] And at the end, the jury, as requested and expected, found Scopes guilty of teaching evolution. [FN237] The defense was not displeased; [FN238] after all, a guilty verdict was necessary to have the case heard by a higher court. However, the defense sealed its fate of which - the Tennessee Supreme Court or the United States Supreme Court - would hear the case.

Before this verdict was read, the court discussed the punishment. [FN239] And when the judge overruled the prosecution's request for the jury to set the fine, Darrow did not object. [FN240] This error made the difference between the case affecting Tennessee only or potentially setting precedent for the entire country. [FN241] Because without that objection, the case went only as far as the Tennessee high court. [FN242]

Eleven months after the verdict, the appeal hearing finally began. [FN243] The State argued that evolution undermined its citizens' faith, essentially arguing that if one believes in evolution, one could not also believe in life after death. [FN244] And the following January, in 1927, the Tennessee Supreme *37 Court reversed Scopes's conviction - but only on a “technicality”; the Tennessee Constitution required that fines higher than fifty dollars be imposed by a jury. [FN245] However, the court did not hold the statute to be unconstitutional. [FN246]

In its constitutional review of the law, the Tennessee court determined that the law did not mandate any particular theory of the origin of life to be taught; it merely restricted one theory from being presented. [FN247] According to the court, the Tennessee

Legislature was free to determine what should not be taught in its schools, even if it decided the entire curriculum of biology should be omitted. [FN248] And as an employee of the school system, the statute did not infringe on Scopes's individual liberties - only those of a state employee's. [FN249] The court held the state could regulate the conduct of its own employees, as employees. [FN250]

The “trial of the century” [FN251] was over, and appeals were exhausted. Although the State of Tennessee could have retried Scopes, it chose not to. [FN252] The statute remained law. [FN253] And its survival of the trial paved the way for other states to follow suit.

b. After Scopes: Antievolution Spreads

After the Scopes trial in 1927, the State of Arkansas, like several other states, adopted a law that prohibited teaching the theory of evolution. [FN254] The law applied to “any state-supported school or university,” and although the law did not address the teaching of specifically biblical ideas or issues as the Tennessee law had, the Arkansas law did prohibit teaching “the theory or doctrine that mankind ascended or descended from a lower order of animals” [FN255]

The 1928 statute in Arkansas, like those elsewhere, was proactive in *38 nature. After the Scopes trial, concerned persons wanted to be sure their children were not similarly taught evolution. [FN256] The “‘fundamentalist’ religious fervor” had begun to take hold, and what seemed to be at the heart of any such statutes was the idea that if schools did not teach evolution, children would not have to question the biblical concepts they were taught - whether they learned those concepts at home, at church, or even at school. [FN257] And why not enact such a law? After all, Tennessee had upheld the constitutionality of its statute; why should another state not protect its children from having to hear such, as so many antievolution supporters thought, blasphemy? [FN258] Evolution was removed from the classroom, [FN259] and the laws passed in the wake of Scopes remained largely unchallenged for forty years.

But slowly, over the next twenty years, the tides changed again. Evolution crept back into some books, and in 1959, the American Institute of Biological Sciences, an organization developed as a result of President Eisenhower's request to foster the advancement of science in the United States, produced new textbooks. [FN260] Perhaps fundamentalism was less fundamental in the scare of the Cold War.

c. Susan Epperson: Challenging Antievolution Law Again

One of these new textbooks, *Modern Biology*, was adopted at *39 Arkansas's Little Rock Central High School in 1965; the biology teachers had recommended that the administration adopt new textbooks. [FN261] The textbooks contained a chapter that set forth this theory: men originated from a lower form of animal. [FN262] The textbook, of course, fell far short of meeting the mandates the 1928 statute had proscribed. [FN263] When a tenth-grade teacher, Susan Epperson, realized the predicament, she brought an

action requesting the statute to be declared void. [FN264] After all, under the statute, any teacher who taught the proscribed theory would be subject to dismissal. [FN265]

And this time, forty years after the “trial of the century,” the trial court did things differently. The chancellor banned media coverage and restricted the issues to constitutional challenges. [FN266] And after only two hours, the trial ended, and the court's opinion that followed rejected not creationism but the law that made it illegal to teach evolution, implying that to forbid the teaching of a chapter on evolution would suppress constitutional freedoms. [FN267]

The Arkansas Chancery Court referenced the Scopes decision, but *40 refused to follow its lead. [FN268] And Arkansas did not limit the issue to the state as an employer directing what its employees should or could do. [FN269] Instead, the court addressed the effect of the law's substance. [FN270] The court acknowledged the public interest, but held that the law “was arbitrary and vague” and that it “hinder[ed] the quest for knowledge, restrict[ed] the freedom to learn, and restrain[ed] the freedom to teach.” [FN271]

And so the days of Tennessee's “monkey” law were over - at least in Arkansas. For final resolution though, more than a mere chancery court opinion was needed. Likewise, more was needed than the Arkansas Supreme Court. Whether it intended to or not, the Arkansas Supreme Court paved that road: it reversed the chancery court in a mere two-sentence, unsigned opinion. [FN272] That court reasoned the statute was “a valid exercise of the state's power to specify the curriculum in its public schools,” but the court stated it did not issue an opinion on what the law actually forbade. [FN273] With a decision against them, Epperson, along with her attorney, Eugene R. Warren, appealed to the United States Supreme Court. [FN274]

d. Epperson v. Arkansas: Antievolution in the U.S. Supreme Court

The Supreme Court declined to address the law on the vagueness issue. [FN275] Instead, the Supreme Court stated the law “conflict[ed] with the constitutional prohibition of state laws respecting an establishment of religion . . .” [FN276] The law's prohibition on teaching evolution, the Court stated, existed solely because the doctrine conflicted with a particular religion. [FN277] And under the First Amendment, the government could “not be hostile to any religion or to the advocacy of no-religion . . .” [FN278] The Court *41 stated that neutrality must control. [FN279]

Addressing the history of constitutional issues and classrooms, the Court stated that even as early as 1923 it had “not hesitat[ed] to condemn . . . ‘arbitrary’ restrictions upon the freedom of teachers to teach and of students to learn.” [FN280] Although a state should have power over its schools' curriculum, when either students' or teachers' liberty was restricted, that power was not enough to support such restriction. [FN281] But the Court stated it did not have to revisit that dialogue; the Epperson issue could be resolved on the narrow terms of the First Amendment. [FN282] The State could not have a law that aided one - or all - religions or that preferred one religion over any other. [FN283]

In analyzing whether any religion was being preferred with the Arkansas law, the Court said, “There can be no doubt” that the antievolution law was in place because evolution conflicted with the explanation of origin of life as given in the Book of Genesis. [FN284] And for *42 some people, that explanation should be the exclusive explanation provided to students. [FN285] In fact, the Court noted that no other explanation was available for the law other than the “fundamentalist sectarian conviction.” [FN286]

Based on the lack of any nonreligious explanation for the law, then, the Court held it was not “an act of religious neutrality.” [FN287] Arkansas had not banned all discussion of the origin of man - only discussions that involved evolution, a theory that had a “supposed” conflict with the theory provided by a literal reading of the Bible. [FN288] Due to that lack of neutrality, the law was unconstitutional under the First Amendment. [FN289]

2. The Road to Balanced Treatment

The Supreme Court had spoken: antievolution laws were unconstitutional. [FN290] Schools could not prohibit the teaching of a theory for the lone reason that it conflicted with a particular religion. [FN291] But just because the Court issued an opinion on what could not be prohibited from being taught, opinions on the matter did not subside. Conservative Christian groups were vigilant - and angry. [FN292] The divide between evolution and creationism was as strong as ever. [FN293] The Court, however, *43 gave no further guidance. [FN294] Evolution could be taught in the classroom. But what else? Could other theories regarding the origin of life be offered to students?

In the years after Epperson, groups formed and argued and sometimes demanded that if evolution could not be banned, then schools should offer (meaning, it would seem, that they should teach) “at least two theories about [the] origin [of life] . . . to . . . students. [FN295] Proponents of science likewise spoke out as strongly, “condemn[ing] the creationis[m proponents'] ignorance . . .” and fearing science education would be damaged. [FN296] Publishers, caught between the two sides, responded. [FN297]

Trying to appease the creationism proponents, in the late 1960s and early 1970s, publishers removed words such as “ancestors” from texts and qualified discussions of evolution with language such as “it is believed” and “according to one point of view.” [FN298] But most books continued to provide information about evolution. [FN299] Nothing was mandated. After all, the Court had not said what should be taught; it merely stated what could not, on its own, be banned. [FN300] Lawsuits continued, but none traveled the path to the Supreme Court. States continued to handle issues at the local level. [FN301]

*44 Answering the essential uncertainty about what should or could be taught, states, fueled by creationism proponents, began to pass legislation in the late 1970s. The group Citizens for Fairness in Education assisted several state legislatures in introducing

legislation that would require schools to teach creationism alongside evolution. [FN302] Attorneys for the Institute for Creation Research likewise helped draft proposed bills. [FN303]

Tennessee saw the passage of the Genesis Act, a bill that “required biology textbooks [(not teachers)] . . . to identify evolution as a theory rather than a ‘scientific fact,’ and . . . [required] to give equal emphasis to ‘the Genesis account in the Bible.’” [FN304] As amended, the law required Genesis to be read in the classroom and banned “the teaching of all occult or satanical beliefs of human origin.” [FN305] The Sixth Circuit Court of Appeals struck down the law barely two years later, holding it violated the Establishment Clause by mandating the teaching of religious doctrine. [FN306] The court also likened the law to the Butler Law from Tennessee in the 1920s - the statute that brought about the Scopes trial. [FN307]

Based on the case out of Tennessee, striking down the Genesis Act, many equal treatment bills lost steam. [FN308] States chose instead to address the issue through the process of selecting textbooks and not through official state law. [FN309] Then, in an attempt to bring the issue back to state legislatures, creationist proponents “created” creation-science. [FN310]

With the push of the creation-scientists, the core of discussions focused *45 on the science behind each theory. [FN311] The new focus addressed the right of religions and centered on equal time - not on scientific evidence. [FN312] But this focus also asserted that to teach both theories would restrict the debate to scientific areas and not present religious doctrine. [FN313] By doing so, teaching would be “neutralized” and doing so “would not advance [any] religion.” [FN314] Public support for equal and balanced treatment had grown. [FN315] Even textbook authors incorporated creationism back into textbooks. [FN316]

The support did not reach only textbook authors. Legislatures joined in. The state legislature of Arkansas, in 1981, passed a bill, which was based on a model bill drafted in the 1970s by the Citizens for Fairness in Education and on Wendell Bird's resolution for “equal time.” [FN317] Balanced treatment was now required by law in Arkansas. [FN318]

3. Balanced Treatment: Religion or Science?

a. Arkansas's Balanced Treatment Act: McClean v. Arkansas Board of Education

The Arkansas law required “balanced treatment to creation-science and to evolution-science” in public school classrooms. [FN319] Earlier creationism proponents initially saw such legislation as a way to “prevent[] ‘the establishment of theologically liberal, humanistic, nontheist, or atheist religion.’” [FN320] In spite of this noted purpose though, the bill focused on promoting creation-science. [FN321]

Barely two months after the Arkansas governor signed the bill, *46 challenges were brought. [FN322] The ACLU represented groups such as biology teachers and groups of Catholics, Jews, Methodists, and Presbyterians who complained the bill violated the Establishment Clause because it “attempt [ed] to establish religion in public schools” [FN323] The plaintiffs argued that creation-science was not science at all but “actually a religious apologetic.” [FN324] The defense responded that the purpose of the law was secular: “to broaden the discussion of origins to more than one exclusive model . . . and [to] further[] academic freedom.” [FN325]

This time, to review the law under the Constitution, the court now had specific language to use: the Lemon test. [FN326] If the law failed under any one of the three prongs of the Lemon test, the law was unconstitutional. [FN327] The federal district court in Arkansas, though, did not stop with analyzing just one prong; it held the law failed under all three prongs. [FN328]

The circumstances of the bill's drafting led to its demise regarding the purpose prong. [FN329] The court held that the only purpose - that the actual specific purpose - that could be inferred was one that advanced religion. [FN330] The inclusion of language that was specific to Western religion doomed the law under the second prong. [FN331] Finally, enforcing the law would cause authorities to have to make “religious judgments” - an entanglement of religion and government that would be excessive. [FN332]

The defendants argued that the law had carefully focused on the idea of “creation-science.” [FN333] But the federal district court in Arkansas disagreed such a thing existed as developed by this group. [FN334] After all, the law was based on language drafted by a person who was not an expert in *47 either science or law. [FN335] The drafter instead blamed evolution for “ills such as Nazism and abortion[,]” having claimed the issue was a “battle . . . between God and anti-God forces,” making it easy for the court to conclude the act had religious intentions. [FN336]

The court went further. Even after determining the law was unconstitutional under the First Amendment, the court analyzed creation-science. [FN337] Several things doomed the court's view. [FN338]

First, members of the Creation Research Society, a group to which most of the creation-scientists belonged, were required to affirm their belief in God and in a literal interpretation of Genesis. [FN339] The court viewed the resulting methodology as inherently unscientific in that ascribing to the views in the statement of beliefs would not allow for skepticism or the changing of one's mind because the conclusion would never be altered. [FN340]

Second, creation-scientists did not join the activities of traditional scientists. [FN341] The creation-scientists had not shown that they participated in scientific academia by publishing articles subject to peer review. [FN342] They likewise did not participate in debates or similar areas of the scientific community. [FN343] They did not show the

court they were employed by leading research institutions; the only institutions involved were those with a stated religious purpose. [FN344]

Finally, the court considered what most courts focus on: evidence. And on this, the fundamental nature of creationism hurt the argument. [FN345]*48 For creationism is based on faith. And faith, as it stands, is the belief in something without evidence of that something. [FN346] If evidence existed for creationism, then we would not need faith to believe in it. [FN347] But the core faith of creationism proponents makes their belief strong. [FN348] A conundrum had put creationism in its own corner; and the court agreed: creationism was not science, even when labeled “creation-science.” [FN349]

The defendants had lost; the court declared the law unconstitutional. [FN350] The state had already spent almost \$1 million on the issue, and the attorney general decided not to appeal. [FN351] But the issue was not settled for a national audience. Louisiana brought about that opportunity. [FN352]

b. Louisiana's *Edwards v. Aguillard*: Revisiting the Supreme Court

Before the federal district court issued its opinion in *McClean* in January 1982, the Louisiana Legislature had passed a similar bill mandating balanced treatment: the Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction Act. [FN353] Before the court even heard testimony in *McClean*, the ACLU brought an action challenging the constitutionality of the Louisiana law. [FN354]

The plaintiffs' primary argument stated the law violated the Establishment Clause because it “advanced religion.” [FN355] The federal district court, in granting summary judgment for the plaintiffs, held that the law violated the First Amendment because it either prohibited schools from teaching evolution or, if evolution was taught, the law required creation-*49 science to also be taught, and creation-science had a purpose of advancing a particular religious doctrine. [FN356] The circuit court affirmed the district court's decision, holding that although the statute proclaimed its purpose was to protect academic freedom, by placing restrictions on teaching, the opposite effect occurred. [FN357] Conversely, the court stated the intent behind the law was to “discredit evolution” by mandating that an opposing theory be presented any time the theory of evolution was presented. [FN358]

The plaintiffs thought the issue was finally settled, but this time, for the first time since *Scopes*, a judge dissented and published an opinion in support of the creationism proponents' views. [FN359] With that dissent and with mandatory jurisdiction lying with the Supreme Court (because a federal court had ruled a state law violated the U.S. Constitution), the Louisiana defendants appealed, and the case went to the Supreme Court. [FN360] The Court affirmed the lower courts, although two justices - Justices Scalia joined by The Chief Justice - dissented. [FN361]

The essential arguments were not new. The defendants argued that summary judgment had been incorrect because a fact issue existed: the definition of creation-

science. [FN362] But the defendants also argued that the decision behind the summary judgment was incorrect, contending the law “had a . . . secular purpose based on . . . ‘academic freedom’ . . .” [FN363] The defendants argued that to teach creation-science did not necessitate teaching a particular religious view because evidence “such as the abrupt appearance of complex life in the fossil record, the systematic gaps between fossil categories, [and] the mathematical improbability of evolution . . .” was purely scientific and showed no concept of the Genesis account. [FN364] But it also contradicted strict evolution science.

*50 The plaintiffs, of course, disagreed. Their focus was on purpose; for if the law was held to have a religious purpose, it would be unconstitutional. [FN365] And the plaintiffs asserted that nowhere in the record could a secular purpose be found. [FN366]

Acknowledging the public school system's inherent influence on schoolchildren, the Court stated that it must keep in mind that parents should be able to trust that “the classroom will not purposely be used to advance religious views that may conflict with the private beliefs of the student and his or her family.” [FN367] Thus, the Court agreed with the plaintiffs, and it never had to define creation-science; summary judgment was correct because the law was unconstitutional based on its purpose - understanding the purpose through the law's legislative history and historical context. [FN368] Even considering the affidavits offered by the defendants, the affidavits addressed events that occurred after the statute was enacted. [FN369] Under the Lemon test, which the Court used to analyze the law, the first prong looked at a law's purpose not as stated, but as the government actually intended when the law was enacted. [FN370]

According to the Court, the plaintiffs had identified no secular purpose for the law. [FN371] Although the law itself stated its purpose was to protect academic freedom, the Court agreed with the conclusion of the court of appeals that the law actually was not designed for its stated purpose. [FN372] Instead, because the act removed teachers' flexibility by mandating coverage of one theory if another theory was taught, the law actually restricted academic freedom. [FN373] A teacher would not be free to decide to present only one of the theories. [FN374] Before this law, Louisiana teachers *51 were free to teach any theory “based on established fact,” and the law in question gave “teachers no new authority.” [FN375]

However, the Court was not unanimous. Justice Powell, joined by Justice O'Connor, concurred in the judgment. [FN376] He wrote separately to address specific areas of the legislative history and to highlight that the Court's majority opinion did not speak against states' discretion in determining school curriculum. [FN377] Justice Powell compared the legislative history of the Louisiana statute to that of the Arkansas statute from Epperson and stated that the Louisiana legislature had “exercised its discretion” to promote a particular religious belief - an act prohibited by the Establishment Clause. [FN378]

But Justice Powell addressed schools' and states' ability to direct the curriculum for students. [FN379] Choosing to teach material that happened to “coincide or harmonize with the tenets of some or all religions” did not on its own violate the Establishment

Clause. [FN380] The key focus was the purpose behind that choice. [FN381] If the choice was made to advance religious beliefs, the law violated the Constitution. [FN382] But if the purpose of the statute could be identified as something else - a secular purpose - then the law might withstand constitutional scrutiny. [FN383]

Like cases before it, the Edwards decision struck a blow to creationism proponents' goals. But this time, unlike in Epperson, the creationism proponents had some direct support: two justices dissented. [FN384] Justice *52 Scalia authored the dissent and was joined by Chief Justice Rehnquist. [FN385]

Justice Scalia focused on the application of the Lemon test in the past. [FN386] He stated that a law need not have only a secular purpose, but that if it had any secular purpose, then it could withstand scrutiny. [FN387] Laws could have dual purposes and be constitutional. [FN388] Just because a law was advanced by religious proponents was no reason to strike the law down, assuming it had some secular purpose that was served. [FN389] Otherwise, religious persons would not have the right to participate in the political process the same as nonreligious persons did. [FN390] Accordingly, just because the law coincided with the religious beliefs of some of its proponents, that alone was not reason to deem the law unconstitutional. [FN391]

Justice Scalia also focused on the Court's past goal of neutrality concerning religion. [FN392] The First Amendment does not forbid only actions that advance religion, but it also forbids actions that are hostile toward religion. [FN393] If a state action was acting to inhibit religion, then the State would be required to prevent the action. [FN394] Accordingly, if the Louisiana legislatures believed that teaching evolution was hostile towards religious beliefs, the state had a duty to take action to prevent that hostility. [FN395] And doing so would not violate the Lemon test. [FN396]

The Supreme Court had spoken again on the evolution-creation controversy, and Louisiana's balanced treatment act was unconstitutional - at least with the legislative purposes highlighted by the Court. [FN397] But Justice Brennan, writing for the majority, had stated, "teaching a variety of scientific theories about the origins of humankind to schoolchildren might be validly done with the clear secular intent of enhancing the effectiveness of science instruction." [FN398] And organizations, teachers, and courts would test that language in the coming years. [FN399] The issue was (and is) far from *53 over.

4. Life after Edwards: The Debate Continues

The creationism proponents had been encouraged by comments in Edwards and by the dissenting opinion. And so, battles continued, beginning in school districts across the country, but ending in courtrooms.

a. Stickers in Textbooks: Biblical Focus

Understanding its school district could not ban the teaching of evolution, a school board in Louisiana adopted a resolution in 1994 that required teachers to read a disclaimer anytime evolution was going to be studied. [FN400] Parents of some of the district's students sued, challenging the resolution under the First Amendment. [FN401]

The federal district court reviewed the disclaimer to be read. [FN402] The disclaimer instructed students that evolution was being taught as a scientific theory and not in an attempt to alter any student's views of "the Biblical version of Creation or any other concept." [FN403] The court, reviewing minutes of school board meetings, concluded that the school board expressly intended the disclaimer to show it did not endorse the theory of evolution. [FN404] Further, the singling out of creationism and the biblical theory of life's origin showed a religious motivation and not a motivation to foster "critical thinking." [FN405] Prior to the resolution, "teachers . . . [already] had the right to discuss alternate theories to the creation of life" [FN406]

Based primarily on the evidence seen in the school board minutes, the court concluded the resolution violated the Establishment Clause. [FN407] The court reasoned the purpose was not secular; the only other theory referenced in the disclaimer was that of creation, and the school board's meetings showed religious intent. [FN408] The court, quoting the Supreme Court to state that the government was "firmly committed to a position of *54 neutrality[]" involving matters of religion in society, held that the language in the disclaimer was unconstitutional. [FN409]

b. Using the Free Speech Clause

Creationists changed tactics. If the First Amendment's Establishment Clause worked against them, perhaps the Free Speech Clause would work in their favor. In 1987, a science teacher in Illinois taught his students creation-science. [FN410] When told to stop, he argued his right to free speech was being violated. [FN411] The courts disagreed. The Seventh Circuit held that a teacher does not have a free speech right to teach creation-science. [FN412] But the court went further. It stated also that the school district could indeed ban a teacher from teaching creationism. [FN413]

Another teacher, this time in Minnesota, used the Free Speech Clause as an argument when he was reassigned to teach another class. [FN414] Lavake was transferred to the new class after he requested to teach not only evolution, as required by the school district, but also to include class discussions involving "an honest look at the difficulties and inconsistencies of the theory without turning [his] class into a religious one." [FN415] The school superintendent asserted that the teacher was reassigned because he "differed fundamentally with the 'commonly held principles of the curriculum.'" [FN416] After being reassigned, the teacher sued based on his personal right to "free exercise of religion, free speech, [and] due process" [FN417]

In reviewing the lower court's granting of summary judgment, the Minnesota appellate court affirmed. [FN418] The court held that the teacher had not shown a burden on his religious practice and the school district had an important pedagogical interest in

its curriculum and a legitimate concern in remaining religiously neutral. [FN419] Further, the court held that the teacher's duties as a public school teacher to teach evolution as directed overrode the *55 teacher's right to free speech. [FN420] Finally, because the teacher was not fired and was only reassigned, and because the teacher's proposed method of teaching the material conflicted with the school district's prescribed curriculum, the court held that the teacher's due process rights were not violated. [FN421]

c. Finding a Secular Purpose but Religious Effect

Learning from the events in Louisiana and its unconstitutional disclaimer language, a Georgia school district adopted a policy of placing a sticker in its biology textbooks. [FN422] The sticker stated, in part, “[e]volution is a theory, not a fact, regarding the origin of living things. This material should be approached with an open mind, studied carefully, and critically considered.” [FN423] In spite of the language not focusing on creationism or any biblical theory, one parent, who joined others as plaintiffs against the school district, was alarmed by the language on the sticker. [FN424] The parent felt that the sticker could have had only a religious purpose because “religious people are the only people who ever challenge evolution.” [FN425]

This time, though, the court held that the disclaimer had two secular purposes: to foster critical thinking; and to present the evolution theory in a nonhostile environment. [FN426] Accordingly, the disclaimer did not fail the purpose prong of the Lemon test. [FN427]

However, although the purpose of the disclaimer language was determined to be secular, the court held for the plaintiffs; the effect was not secular. [FN428] The court held that the “informed, reasonable observer” would view the sticker as an “endorsement of religion,” because the sticker sends the message that if one opposes evolution, he is a preferred member of society. [FN429] And one who favors evolution is not. [FN430] The court reasoned that because “[m]embers of certain religio[ns] . . . [had] historically . . . opposed *56 the teaching of evolution . . .,” any observer would know this and interpret any statement about evolution as favoring those religions. [FN431] In other words, the historical debate regarding evolution and religion would itself cause any comment regarding evolution as a “theory” to be perceived as an advancement of religion. [FN432]

5. The Pennsylvania Intelligent Design Case

Late in 2005 in Dover, Pennsylvania, the concept of intelligent design met the American judicial system. [FN433] Beginning in January 2005, teachers in the Dover school system were going to be required to read a disclaimer regarding teaching the origin of life. [FN434] Before the resolution took effect, it was challenged under the Constitution as an establishment of religion. [FN435] The district court used both the Lemon test and the endorsement test to review the resolution under the Constitution. [FN436]

Under the endorsement test, the court noted that it needed to review both “what [the government] intended to communicate” with its resolution as well as the “message [its conduct] actually conveyed[.]” - both purpose and effect of the resolution. [FN437] And the court, following Supreme Court language, narrowed the focus of the review of the resolution's purpose: it would look at the purpose as understood by the observer who was familiar with the history and context of the enactment to make sure nothing was *57 implemented that might favor or prefer any particular religion. [FN438] This observer would be considered informed and to know not just the history of the society, but also of the legislation that was being reviewed. [FN439]

The court stated that the resolution came about because the government wanted to weaken the teaching of evolution in its school system. [FN440] It could accomplish this by focusing on gaps in the theory of evolution. [FN441] Further, intelligent design, as the court reviewed it, had a “religious nature” that would be observable to the hypothesized “objective observer.” [FN442]

The court reviewed the testimony of the plaintiffs' expert in the trial who stated that intelligent design was an ancient religious idea. [FN443] Quoting 13th century philosopher - and more notably for this discussion, theologian - Thomas Aquinas, the expert stated that the intelligent designer referenced in the concept of intelligent design was God - the Christian God. [FN444] Further, the court reviewed the development of the information used to describe intelligent design and concluded that intelligent design was nothing more than disguised creation-science. [FN445] The court focused on the “intelligent design movement” and stated that the movement itself describes intelligent design as a religious concept. [FN446] In continuing its review, the court concluded that the disclaimer, its classroom presentation, and the policy itself would, to the objective observer, be perceived as an “official endorsement of religion.” [FN447]

Turning to the Lemon test, the court again analyzed the purpose and *58 effect of the proposed resolution. [FN448] The court stated its primary question was whether the school district had preferred one religion or set of religious beliefs; to act with a purpose of advancing religion would violate the Establishment Clause. [FN449] The court concluded that based on the disclaimer's language, the legislative history, and the historical context, advancing religion was the central reason for the curriculum. [FN450] No evidence suggested that the school district's reason involved improving science education; ample evidence showed many members of the board wanted something that would discredit evolution and promote biblical creationism's inclusion. [FN451] Accordingly, the court concluded that no secular purpose was present, violating the Establishment Clause. [FN452]

Although it admitted that based on its holdings, no further review was necessary, the court also addressed the effect prong. [FN453] The resolution could neither advance nor inhibit religion and government could not focus its resources on “a single religious faith or behind religious belief in general” such that those who did not agree would feel compelled to support the view at issue. [FN454] The court reasoned that because it had

concluded that intelligent design was not science, the only effect that could result was to advance religion. [FN455]

In conclusion, the federal district court held, in every review, that the resolution promoting the reading of a disclaimer to Dover students violated the Establishment Clause. [FN456] The resolution failed under both the endorsement and Lemon tests, and the court had determined that intelligent design was not science. [FN457] The court, though, had looked at things in a one-sided manner. And much of what it said can actually work similarly against the teaching of evolution.

*59 IV. Ideologies: To Fear Endorsing One Leads Only to Endorsing Another

In case after case, courts focus on the creationism theory and conclude that because of the historical debate that exists, reference to the theory, if nothing more, in the very least sets up a religious effect. [FN458] But what courts have missed is how evolution, at its fundamental core, likewise shows religious effect. By looking at the core concept of evolution and what the theory represents, a religious message - a theistic message - is being conveyed. Because repeatedly courts have allowed the teaching of evolution when they have not allowed the teaching of other theories, the government has shown a preference for one religious message over another, thereby endorsing a religious view. And that directly violates the First Amendment.

A. Dogmas and the First Amendment

As described above, religion is the answer humans provide for central problems. [FN459] In developing religious ideas, people face some sort of issue *60 for which, without an ideology or self-evident truth, they could not otherwise answer. This is not to say that the answer could not be explained by any other means. For example, if some sort of physical natural proof came about that showed the existence of a god or supreme being, the religions that believed in that god or supreme being would not cease being religions. Thus, the religious dogma is what is central to understanding whether something promotes religion - not the lack of explanation found in the natural world.

When referring to something as “dogma,” what is meant is some sort of belief held as a principle or truth that is authoritative and that is to be neither disputed nor doubted. [FN460] For example, for the Christian and Jewish religions, the existence of a single God is the dogma of the religions. [FN461] From this dogma, incorporating tenets carried within each theology, the conclusion stands that God created life as described in the book of Genesis. [FN462] But if one did not believe in the core concept of God's existence, one could not believe in the Genesis creation story.

Another example of dogma - an authoritative truth - is found in atheism: no supernatural deity exists. [FN463] Based on this dogma, the ultimate conclusion reached regarding the origin of life must be that life appeared based on evolution and random mutations. Nothing guides the direction of life, and life itself has no purpose - no power exists to give it such a purpose.

1. Dogma and the Establishment Clause

When the Constitution becomes involved, the Supreme Court has stated that neutrality is key to assuring a government action does not violate the Establishment Clause. [FN464] A violation could occur if a theology is endorsed or if the government action has a religious purpose, results in an effect that either “advances []or inhibits religion,” or if the action brings about “excessive entanglement of government [and] religion.” [FN465]

The great constitutional concern is whether a dogma - a religious idea *61 or theology (a “study of God and of God's relation to the world” [FN466]) - is endorsed or showed preferential treatment. [FN467] However, crucial to that concern is the worry over the result of endorsing any such dogma or theology. If any theology or dogma is endorsed, people who disagree with those concepts will feel like outsiders to the community. [FN468] And those who agree with the concept being espoused will feel as though they are “favored members of the political community.” [FN469]

Thus, the constitutional concern involves endorsing a particular idea about supernatural beings - of a god's relation to the world. When looking at that relationship, inherent in that belief and concept is the ideology that a god has a relationship to the world. However, the alternatives - that no god exists, that any deity that does exist has no relation to the world, or that multiple gods have a relation to the world - likewise promote some religious dogma. The Christian God is not the only deity to be considered; the absence of such a god likewise promotes an ideology - a religious dogma.

At no time has a limit been placed on only particular religious dogmas or concepts. Any religious purpose - whether the demonstrated religious views are held by the majority or the minority of the population - has been held to violate the Establishment Clause; the argument is not limited to promoting Christian ideas. [FN470] It follows, then, that favoring an atheistic dogma would likewise violate the Establishment Clause when that dogma is preferred in such a way as to make those who agree feel like favored members of the community and those who disagree with it feel like outsiders. [FN471]

We do not know, with absolute certainty, how life first began. People have different beliefs, and the final answer is a matter of taking what evidence exists, considering one's personal faith and belief system, and coming to a conclusion. Some reach the conclusion that nothing guided the development of life. Others believe that one deity created life. Still others *62 believe that many gods played a role. The bottom line, though, is that each of these beliefs, no matter the basis, supports a religious ideology - a theistic view.

Because each belief supports an ideology, when a school system or state chooses to adopt a textbook that offers only one theory as the answer for how life began, the state is, in essence, choosing an ideology to offer its students. [FN472] And when the government shows preference for one of those ideologies, it is violating the Establishment Clause.

2. The Dogma of Evolution

Evolution, as a concept used to teach the origin of life, represents religious dogma - an authoritative truth involving a theistic view. [FN473] To believe that life has a specific goal-oriented purpose is to believe design of life exists. [FN474] And for design to exist, some power, being, deity, or force above nature must exist. [FN475] But if life is a result of nothing more than random events and occurrences, then no purpose could exist. If no purpose to life exists, then no supernatural being could exist. [FN476] Therefore, from this syllogism, we can further tie a specific religious dogma to the concept because to believe that no supernatural being exists is to support the basic tenets and dogma of atheism. [FN477]

Believing and promoting the idea that God or Allah or any god exists *63 and directs a purpose of life is no less religious in nature than to argue that no god exists. So when a court approves the teaching of only evolution to explain the origin of life, a state is doing exactly what the courts have said states cannot do: showing preference for one religious dogma over another - for a particular theistic view over other theistic views.

In further support of this idea, consider how the evolutionary theory developed. Those who believe that any deity or supernatural being or beings created the world did not decide to seek out another theory to explain life. They did not abandon their faith and decide to believe that life exists with no purpose or that life was the result of random mutations. Instead, those who did not believe in a higher power or deity - those who did not believe the story of creation - whether they were atheist or agnostic, they sought alternative answers. Regardless of which theory is correct, they found the answers to how life began without a supernatural being in the theory of evolution. [FN478]

B. Courts' Confusion of the Issues

As the courts have reviewed the varying issues brought before them, they have not necessarily missed the boat on each issue. To maintain neutrality, a government cannot prohibit the teaching of evolution. Nor can it mandate that a school district teach one specific theory of the origin of life.

However, neither can a government protect the teaching of only evolution - to the exclusion of other theories. This crosses the line into First Amendment violation. In Minnesota, the court concluded that the school district remained religiously neutral by reassigning a teacher who wanted to cover more than only evolution. [FN479] But to teach only evolution is anything but religiously neutral: doing so provides only the position that no *64 supernatural being exists.

The courts have not stated that to be considered a religious thought or idea, a supernatural being must be believed in. Instead, this assumption is being made - albeit incorrectly. The belief that a supernatural being exists is no less dogmatic than the outright belief that one does not exist.

Further, courts have too often created circular reasoning when defining what is religious. Ever since the original Scopes trial, courts have viewed the issue as inherently religious. [FN480] But courts have gone even farther: they have assumed that because this was once an argument in favor of teaching Christian creationism, every consideration that promotes teaching a concept other than strictly evolution must be fueled by that same push to teach Christianity in public schools. Even if courts have not gone that far, they charge the “objective observer” with knowledge of that historical debate. In doing so, courts assume that no person could ever view new ideas or proposals regarding teaching the origin of life without believing every new proposal was the original proposal in disguise. Courts have, in essence, prevented society from ever advancing in its treatment of the issue.

C. Achieving Actual Neutrality in an Entangled Environment

The Selman court in Georgia acknowledged, “science and religion both offer an explanation to resolve a controversial issue - namely, the origin of the human species.” [FN481] Because the view that science represents also stands for a religious view - a theistic view - government should no longer be able to choose one of those or to show preference for only one view.

The core issue in Edwards was the requirement to teach creationism. [FN482] The Court did not state a school could not teach creationism, but a state could not require a school to do so. [FN483] From Epperson, we know that a state cannot prohibit the teaching of evolution. [FN484] But no case has said that evolution must be taught, and no case has stated that creationism shall not be taught. So a question is begged: does any issue even exist? I answer, yes.

Teachers who want to present a variety of theories to their students need to know the law protects them. A permissive law should be in place that allows teachers to share with their students information generally *65 accepted regarding how life began. Because without such protection, when a teacher attempts to fully educate the students, no doubt a parent will complain that the school system is trying to establish that child's religion.

I agree wholeheartedly that schools are not the place to teach schoolchildren to believe in a particular doctrine or ideology. But they are an ideal place to share with schoolchildren information about the ever-increasing diverse nation we live in. Thus, schools may very well be a good place to educate schoolchildren that alternative views to the “big questions” exist. [FN485] After all, in the month of December, children are often educated about varying holiday celebrations different ethnic and religious groups follow and participate in, whether it is Christmas, Hanukah, Kwanza, celebrations of the winter solstice, and the like. This education has even been reviewed by the Supreme Court. [FN486]

Teachers should likewise feel secure in their ability to teach alternative theories regarding the origin of life and to let their students know that the world has many different answers for the question of the origin of life. But to maintain the neutrality as

required by the Supreme Court and its Establishment Clause jurisprudence, schools would have to educate their students that the full answer is not agreed on and that each concept and theory represents just that - a theory. This could be done with a disclaimer of some sorts, but the school must address all theories equally while not selecting any one over another.

One answer might be to allow each school district to have the origin of life explanations from a variety of views readily available for its teachings - monotheistic views, polytheistic views, and atheistic views. Then, each year, the school could survey its biology students' parents to determine if those parents desired for any other theory to also be covered. In the brief lesson about the origin of life, each theory could be shared. This would prevent any theistic view from being preferred over others and at the same time provide a wonderful opportunity for schools to address issues of tolerance.

Even intelligent design has a place in such a lesson. [FN487] Intelligent *66 design can be taught in the classroom, but only with the same limits that should fall upon the teaching of evolution - and any other theory. [FN488] As religion is explained previously, intelligent design could be considered religious - it serves to answer a problem faced by humans, namely, identifying our origin and, more importantly, purpose. But then again, so does atheism; the atheistic view of the origin of life is evolution. Because both theories have the potential to represent a dogma, as described above, teaching either of these theories should be approached with care to assure neither is placed above others.

With that, how we teach evolution, then, must change - at least in the way it is presented as an allowed theory to be taught without referencing any other theory. Otherwise, we cannot achieve neutrality. And neutrality, as stated by the Supreme Court, is key.

With the uncertainty in the Court as to what test will be used to analyze new legislation or just how it will be scrutinized, in attempts to draft new legislation that addresses the concerns raised in teaching the origin of life, we should assure that any new legislation can withstand scrutiny from any of the tests. Such new legislation, then, should be written so as not to have the purpose of promoting or inhibiting religion, not to have the effect of promoting or inhibiting religion, not to excessively entangle government and religion, and not to endorse religion. And actually, the purpose of any new legislation should be exactly what the Court states we should strive for: neutrality.

V. Conclusion

The teaching of the origin of life involves inherently religious concepts. Even the Supreme Court acknowledged the “historic and *67 contemporaneous link between the teachings of certain religious denominations and the teaching of evolution.” [FN489] From the view of many creationists, for example, evolution is not strictly a scientific theory. Instead, creationists view evolution as a religious doctrine. [FN490] And this

view entangles evolution with the Establishment Clause - in direct violation of the First Amendment.

Evolution - at its fundamental core of macroevolution, explaining the origin of life--represents a religious dogma, a theistic view. Accordingly, favoring the teaching of only evolution in a public school system tramples over the Establishment Clause. The school districts that have such policies in place are not showing neutrality - those who agree with the religious dogma represented by evolution feel like favored members of the community while those who disagree feel like outsiders. This, according to our Supreme Court, is just what our judicial system strives to prevent with First Amendment jurisprudence.

Schools, then, must be allowed to share all theories of the origin of life. Moreover, courts must stop hiding behind the history of the debate. Courts must allow open dialogue among legislatures without permanently tying a trial from the 1920s to our ability to move forward today, nearly one-hundred years later. After all, that history behind the debates has inherent flaws in its logic and application, for all the while the courts tried so hard not to show a preference for one religious dogma, they showed preference for another.

[FN1]. LL.M., Southern Methodist University Dedman School of Law; J.D., Texas Wesleyan University School of Law. The author is a Visiting Professor at the University of Memphis Cecil C. Humphreys School of Law. This Article was originally written as the author's LL.M. thesis at Southern Methodist University Dedman School of Law. The author is grateful to Ellen Smith Pryor, the author's LL.M. thesis sponsor, for her insightful comments and dialogue, her support and encouragement, and editorial input.

[FN1]. See *Scopes v. State*, 289 S.W. 363, 363-64 n.1 (Tenn. 1927). The Tennessee Supreme Court upheld the constitutionality of Tennessee's "monkey law," which made teaching "any theory that denies the story of the divine creation of man... and to teach instead that man has descended from a lower order of animals" unlawful. *Id.* The Tennessee Supreme Court pointed out the statute's primary purpose was to prohibit teaching evolution as was commonly understood to refer to the descending of humans from some other - "lower" - form of life. *Id.* at 364. The phrase "monkey law" became a common method of referring to the Tennessee law, based on its reference to theories that supported the idea that man descended from a lower form of animals - hence, "monkey" law. See, e.g., *Edwards v. Aguillard*, 482 U.S. 578, 591 n.10, 603 (1987); *Smith v. State*, 242 So. 2d 692, 697 (Miss. 1970).

[FN2]. Intelligent Design represents the theory that "holds that the sheer complexity of life defies the science of chance and points to an intelligent architect." Craig Savoye, *Whose 'Science'?*, *The Christian Sci. Monitor*, Feb. 8, 2000, at 11, available at 2000 WLNR 1283097.

[FN3]. See *County of Allegheny v. Am. Civil Liberties Union Greater Pittsburgh Chapter*, 492 U.S. 573, 593 (1989) (explaining that the Endorsement Clause "preclude[s

the] government from conveying or attempting to convey a message that religion or a particular religious belief is favored or preferred.” (citation omitted)).

[FN4]. I realize that defining concepts such as science and religion may bring about great debates. However, that debate is left for another time; this Article instead concerns an idea about those concepts and theories as determined by reviewing a specified definition of each.

[FN5]. See, e.g., National Science Teachers Association, NSTA Position Statement: The Teaching of Evolution 3, [http:// www.nsta.org/pdfs/PositionStatement_Evolution.pdf](http://www.nsta.org/pdfs/PositionStatement_Evolution.pdf) (last visited Nov. 5, 2007) (explaining that the sciences cannot be taught “with integrity if evolution is not emphasized.”).

[FN6]. See Robert George Sprackland, Teaching About: Origins, 192 Am. Sch. Board J. 26, 27 (Nov. 2005).

[FN7]. See *id.*

[FN8]. *Id.*

[FN9]. National Science Teachers Association, *supra* note 5, at 2.

[FN10]. *Id.*

[FN11]. *Id.*

[FN12]. *Id.*

[FN13]. *Id.*

[FN14]. See Brian L. Silver, *The Ascent of Science*, at xiii (Oxford University Press 1998) (“At its most abstract, science shades into philosophy”).

[FN15]. *Id.*

[FN16]. *Id.*

[FN17]. *Id.*

[FN18]. *Id.*

[FN19]. Consider the recent scientific studies addressing the effects of prayer. See Sam Knight, Prayer Does Not Heal the Sick, Study Finds, Times Online, Mar. 31, 2006, http://www.timesonline.co.uk/tol/news/world/us_and_america/article1072638.ece. Prayer itself may be an abstract concept and involve religion, but a scientific study was employed to inquire about its effects. *Id.* Of course, some argued against such a study,

saying that to try to study religion scientifically does “violence to the phenomenon by reducing it to basic elements that can be quantified...” Id. (quoting Dr. Richard Sloan). However, even if religion is proven with elements that can be quantified, it will not negate the nature of the belief or provide any less of a basis on which people can use to solve a particular “central problem.” See *infra* note 23 and accompanying text.

[FN20]. U.S. Const. amend. I. The First Amendment is, of course, applicable to the states through the Fourteenth Amendment. See, e.g., *Wallace v. Jaffree*, 472 U.S. 38, 49-50 (1985).

[FN21]. See *Welsh v. United States*, 398 U.S. 408, 351-52 (1970) (providing six different definitions of religion).

[FN22]. See Warren Matthews, *World Religions* 11 (3d ed. 1999).

[FN23]. See *id.* Central problems identified include sin for Judaism and Christianity, refusal to submit to God for Islam, recurring rebirth for Hinduism, suffering for Buddhism, living harmoniously with others for Confucianism, and living harmoniously with nature for Daoism. See *id.*

[FN24]. Jacob Neusner, *Judaism*, in *Our Religions* 291, 306 (Arvind Sharma ed., 1993).

[FN25]. See Seyyed Hossein Nasr, *Islam*, in *Our Religions*, *supra* note 24, at 425, 444.

[FN26]. See Huston Smith, *Why religion Matters: The Fate of the Human Spirit in an Age of Disbelief* 3 (2001).

[FN27]. See, e.g., *Wisconsin v. Yoder*, 406 U.S. 205, 216 (1972) (explaining that Thoreau's choice to isolate himself at Walden Pond was not based on a religious claim, but rather was based on his own philosophical belief and therefore did “not rise to the demands of the Religion Clauses.”).

[FN28]. Merriam-Webster's Collegiate Dictionary 1296 (11th ed. 2003).

[FN29]. See *The Columbia Encyclopedia* 2825 (Paul Lagassé ed., 6th ed. 2000).

[FN30]. See, e.g., ReligiousTolerance.org, *Who is a Christian?* (Aug. 27, 2006), http://www.religioustolerance.org/chr_defn3.htm. Defining exactly what is meant to consider oneself Christian involves a great deal of conflicting opinions, and even the many varying denominations of the Christian church place focus and emphasis on differing areas of the faith such as baptism status or having declared Christ as one's personal savior. See, e.g., *id.*

[FN31]. See *infra* notes 116-49 and accompanying text.

[FN32]. See *infra* notes 151-53, 161-62 and accompanying text.

[FN33]. See *infra* notes 153-59, 162-63 and accompanying text.

[FN34]. See, e.g., American Atheists, *Atheism* (2006), [http:// www.atheists.org/Atheism/](http://www.atheists.org/Atheism/) (last visited Oct. 16, 2007).

Atheism is a doctrine that states that nothing exists but natural phenomena (matter), that thought is a property or function of matter, and that death irreversibly and totally terminates individual organic units. This definition means that there are no forces, phenomena, or entities [that] exist outside of or apart from physical nature[] or [that] transcend nature, or are “super” natural, nor can there be.

Id.

[FN35]. See, e.g., ReligiousTolerance.org, *Agnosticism: Uncertainty About Whether God Exists* (July 18, 2007), [http:// www.religioustolerance.org/agnostic.htm](http://www.religioustolerance.org/agnostic.htm) (last visited Sept. 7, 2007) [hereinafter ReligiousTolerance.org, *Agnosticism*] (“Agnosticism implies uncertainty about the existence of God.”); *The Columbia Encyclopedia*, *supra* note 29, at 36 (defining agnosticism as a “form of skepticism that holds that the existence of God cannot be logically proved or disproved.”).

[FN36]. American Atheists, *The American Atheist Symbol* (2006), [http:// www.atheists.org/visitors.center/logo.html](http://www.atheists.org/visitors.center/logo.html) (last visited Sept. 7, 2007). On its website, the organization explains the use of a symbol similar to the atomic symbol in selecting a nationwide symbol in 1963 when the organization, American Atheists, was formed. *Id.* However, American Atheists also notes that one of the orbitals used in the symbol is broken, representing that “not all of the answers are in.” *Id.*

[FN37]. See American Atheists, *Introduction* (2006), [http:// www.atheists.org/visitors.center/intro.html](http://www.atheists.org/visitors.center/intro.html) (last visited Sept. 7, 2007).

[FN38]. *Id.* (“We are not a ‘religion’ We accept only that which is scientifically verifiability. Since god concepts are unverifiable, we do not accept them.”).

[FN39]. See *supra* note 24 and accompanying text.

[FN40]. *Merriam-Webster's Collegiate Dictionary* 1052 (11th ed. 2003).

[FN41]. See *supra* note 34 and accompanying text.

[FN42]. See, e.g., American Atheists, *Affiliation* (2006), [http:// www.atheists.org/affiliation/](http://www.atheists.org/affiliation/) (last visited Oct. 20, 2007) (listing atheist groups across the country affiliated with American Atheists organization. “Hundreds of atheist groups across the country want the friendship, communication, education and action that American Atheists is able to provide. This plan can help us grow together.”) *Id.*

[FN43]. See *supra* note 35 and accompanying text.

[FN44]. See ReligiousTolerance.org, Agnosticism, supra note 35.

[FN45]. See id. Although agnosticism is usually distinguished from atheism, under some beliefs, an Atheist may also be an Agnostic. Id. Atheists may fall into one of two categories - Strong Atheists and Weak Atheists. Reference.com, Positive Atheism (Sept. 8, 2007), [http:// www.reference.com/search?q=positive%20atheism](http://www.reference.com/search?q=positive%20atheism) (last visited Sept. 7, 2007). Strong Atheists believe affirmatively that no god exists at all. Id. However, Weak Atheists (also called Negative Atheists), similar to Agnostics, have no belief regarding any supernatural being. Id. No belief is held that a deity does exist, but likewise, no belief is held that a deity absolutely does not exist. See id.

[FN46]. See, e.g., Julie A. Taylor, Teaching History at America's #1 High School, 37 *The History Teacher* 517 (2004), available at <http://www.historycooperative.org/journals/ht/37.4/taylor.html> (last visited Sept. 7, 2007). In discussing a Michigan high school's curriculum, Taylor states, "In their history courses, students are challenged to explore and weigh evidence, to defend their ideas, and to create projects with real-life applications." Id. The high school referenced was ranked in Newsweek magazine. Id. (citing Jay Mathews, *The 100 Best High Schools in America*, Newsweek, June 2, 2003, at 48-54.).

[FN47]. See Steven Kreis, A Student's Guide to the Study of History: The Proper Attitude, *The History Guide*, May 12, 2004, <http://www.historyguide.org/guide/attitude.html> (last visited Sept. 8, 2007) (explaining that students need a "sense of 'what was it like' when... study [ing] history.").

[FN48]. See id.

[FN49]. See James H. Stronge, Qualities of Effective Teachers 47-48 (2002) (discussing the use of questions to add to a student's understanding and engagement in the classroom); Benjamin S. Bloom, The Search for Methods of Group Instruction as Effective as One-to-One Tutoring, in *Effective Classroom Instruction* 37, 47 (Phi Delta Kappa Center on Evaluation, Development, Research 1987) (noting the improved mental process when students are taught ways of thinking and encouraged to reflect on lessons and information).

[FN50]. See Robert Boostrom, *Thinking: The Foundation of Critical and Creative Learning in the Classroom 2* (2005). In the introduction, Professor Boostrom recognizes existing disputes about goals for schools but promotes the idea that agreement exists that getting students to think is a primary goal. Id.

[FN51]. See infra Part III (discussing court opinions based on teaching origin of life in public schools).

[FN52]. See Phillip E. Johnson, *The Right Questions: Truth, Meaning & Public Debate* 63-64 (2002). Professor Johnson characterizes the materialists' story as:

"In the beginning were the particles and the impersonal laws of physics.

And the particles somehow became complex living stuff;
And the stuff imagined God;
But then discovered evolution.”
Id.

[FN53]. See Savoye, *supra* note 2 (quoting Professor Phillip Johnson).

[FN54]. The word “theory” has received much criticism and been assigned varying definitions - often even used as a word to mean “guess” or “hunch,” but also used to describe “[t]he most important scientific explanations.” National Science Teachers Association, *supra* note 5, at 2. For the purpose of this Article, “theory” is used as explained by the National Science Teachers Association: “a set of universal statements that explain some aspect of the natural world.” Id. This definition does not limit the use of “theory” only to concepts accepted by science. Although, using this definition does recognize goals of science “to develop theories that are firmly grounded in and based upon evidence; are logically consistent with other well-established principles; explain more than rival theories; and have the potential to lead to new knowledge.” Id. However, the goal of science is to find evidence and to assure its theories are logically consistent with others. Id. The word theory itself does not require evidence, and thus, theory can be used to explain ideas based on religion and faith. However, because the origin of life is not proven, in considering any of the varying explanations, all of the explanations will be described as theories - as statements that explain that part of the natural world: how life began.

[FN55]. See *id.* at 4.

[FN56]. See *id.*

[FN57]. See Francis J. Beckwith, *Science and Religion Twenty Years After McClean v. Arkansas: Evolution, Public Education, and the New Challenge of Intelligent Design*, 26 *Harv. J.L. & Pub. Pol'y* 455, 460 (2003).

[FN58]. See, e.g., National Science Teachers Association, *supra* note 5, at 4.

[FN59]. See *The American Heritage Dictionary of the English Language* 733 (Joseph P. Pickett ed., 4th ed. 2000) (“Genesis” is a Greek word for “coming into being of something; the origin”), available at [http:// www.bartleby.com/61/13/G0081300.html](http://www.bartleby.com/61/13/G0081300.html) (last visited Nov. 10, 2007).

[FN60]. Genesis 1:1.

[FN61]. See Ken Ham, *A Young Earth - it's Not the Issue!*, *AIG-USA Newsletter*, Jan. 1998, available at [http:// www.answersingenesis.org/docs/1866.asp](http://www.answersingenesis.org/docs/1866.asp) (last visited Sept. 8, 2007) (stating that words have meaning according to the context of the language they were written in and if one takes the plain words of Genesis in context, it points to the authority of the word of God).

[FN62]. Id.

[FN63]. Id.; see also Genesis 6:1-8:22.

[FN64]. See Genesis 6:1-8:22; see also Ham, *supra* note 61. This particular group that supports the website, Answers in Genesis, states that it believes the earth is young because of its underlying belief in the Bible. See *id.* The group stresses the differences in beliefs involve a difference in presuppositions and that their presupposition uses only the Bible as the underlying truth, rejecting any other “presuppositions.” Id.

[FN65]. Ham, *supra* note 61.

[FN66]. Most strict creationists, though, do not differentiate between the two stories of creation found in the Bible, usually melding the two and not acknowledging any differences. Compare Genesis 1:1-2:3 (discussing the creation day by day, and as occurring with God creating plants, then animals, and finally man--both male and female--in God's image to “rule over” the animals already created), with Genesis 2:4-2:22 (immediately retelling the story of creation, but not acknowledging the previous version: “This is the account of the heavens and the earth when they were created[;]” this time discussing God making man before plant and animal life, having man name the animals, before God created woman).

[FN67]. See generally Ken Ham, *Couldn't God Have Used Evolution?*, in *The New Answers Book: Over 25 Questions on Creation/Evolution and the Bible* 31, 31-39 (Ken Ham ed., 2006), available at <http://www.answersingenesis.org/articles/nab/couldnt-god-have-used-evolution> (last visited Oct. 16, 2007) (discussing that the belief in the “loving God of the Bible” essentially necessitates a belief that God originally created a “perfect world” that has not evolved - and has not needed to evolve, lest it would not have been “perfect”).

[FN68]. See Mark Isaak, *What is Creationism?*, *The TalkOrigins Archive*, May 30, 2000, <http://www.talkorigins.org/faqs/wic.html> (“[C]reationism’ refers to a wide range of beliefs.”).

[FN69]. See *id.*; see also McClean, 529 F. Supp. at 1260 n.7, 1265 (using the terms “ex nihilo” and “demiurge”).

[FN70]. Beckwith, *supra* note 57, at 460.

[FN71]. *Edwards v. Aguillard*, 482 U.S. at 602 (Powell, J. concurring) (quoting testimony offered in the Supreme Court's determination that Louisiana's balanced treatment act that requires teaching creation-science if evolution was taught is unconstitutional).

[FN72]. Id.

[FN73]. Pbs.org, Evolution: Religion: Science and Faith (2001), <http://www.pbs.org/wgbh/evolution/faith/index.html> (last visited Sept. 8, 2007).

Even the Institute for Creation Research promotes its purpose as one to address evolution:

Why ICR?

Because American society - especially our educational system - is dominated by evolutionary humanism.

Because the harmful consequences of evolutionary thinking on families and society (abortion, promiscuity, drug abuse, homosexuality, and many others) are evident all around us even infiltrating our churches and seminaries.

Because this rebellion against God and His laws stems from unbelieving scientists and educators undermining the foundational truth of creation.

Institute for Creation Research, FAQs (2007) <http://www.icr.org/home/faq/> (last visited October 16, 2007).

[FN74]. See Edward J. Larson, Trial and Error: The American Controversy Over Creation and Evolution 133-34 (3d ed. 2003) [hereinafter Larson, Trial and Error].

[FN75]. See *infra* notes 261-317 and accompanying text.

[FN76]. Randy Moore, Evolution in the Courtroom: A Reference Guide 73 (2002).

[FN77]. *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968); see *infra* notes 275-89 and accompanying text.

[FN78]. See Larson, Trial and Error, *supra* note 74, at 122.

[FN79]. See *id.* at 123.

[FN80]. Moore, *supra* note 76, at 73 (explaining that some argue that “creation-science” was born only to challenge evolution in a scientific manner). While this may have prompted the beginning of this concept, I disagree that the idea remains solely as a challenge to evolution - at least not to every person, and more personally, to me.

[FN81]. See *infra* notes 59-69 and accompanying text.

[FN82]. See generally Walter T. Brown, Jr., *In the Beginning* vi, 115, (7th ed. 2001), available at <http://www.creation-science.com/onlinebook/> (last visited Oct. 16, 2007) [hereinafter Brown, *In the Beginning*].

[FN83]. See *id.*, available at <http://www.creation-science.com/onlinebook/>; Pbs.org, Evolution: Frequently Asked Questions About Evolution: Evolution on Trial (2001), <http://www.pbs.org/wgbh/evolution/library/faq/cat09.html#Q02> (last visited Sept. 9, 2007).

[FN84]. See Brown, *In the Beginning*, supra note 82, at 84.

[FN85]. See *id.*; see also Brendan I. Koerner, *A Solution in Place of Evolution: Hunting for God on a 'Creation Safari'*, *U.S. News & World Rep.*, Apr. 10, 2000, at 52 (discussing a Kansas City, Missouri fossil-seeking trip, a "creation safari," sponsored by the Creation-science Association for Mid-America during which participants find fossils and hear lectures on the "young earth").

[FN86]. See, e.g., Brown, *In the Beginning*, supra note 82, at 260, available at <http://www.creationscience.com/onlinebook/HydroplateOverview2.html#wp1197621> (explaining the hydroplate theory as a cause of the great flood) and at <http://www.creationscience.com/onlinebook/Asteroids4.html> (summarizing several cause-to-effect theories).

[FN87]. See, e.g., Institute for Creation Research, *Research: Tenets of Scientific Creationism*, http://www.icr.org/research/index/research_tenets/ ("The physical universe of space, time, matter, and energy has not always existed, but was supernaturally created by a transcendent personal Creator who alone has existed from eternity.").

[FN88]. See Brown, *In the Beginning*, supra note 82, at 260.

[FN89]. See The Parent Company, *A Brief Description of the Creation-Science Research Center*, <http://www.parentcompany.com/csrc/csrcinfo.htm> (last visited Sept. 9, 2007).

[FN90]. See *id.*

[FN91]. See *Edwards v. Aguillard*, 482 U.S. at 593-94 (1987).

[FN92]. The University of California Museum of Paleontology, Berkeley, *An Introduction to Evolution* (2007), http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_02 (last visited Sept. 9, 2007) [hereinafter *The University of California Museum of Paleontology, Berkeley, Introduction to Evolution*].

[FN93]. See *id.* at http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_37; see *id.* at http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_47.

[FN94]. See Patricia G. Horan, *Foreward to Charles Darwin, The Origin of Species by Means of Natural Selection or The Preservation of Favoured Races in the Struggle for Life*, v, v (Avenel Books 1979) (1859).

[FN95]. See Theresa Wilson, *Evolution, Creation, and Naturally Selecting Intelligent Design Out of the Public Schools*, 34 *U. Tol. L. Rev.* 203, 206 (2003) (discussing Thomas Malthus's 19th century essay, *Essay on the Principle of Population*, in which Malthus opined that the law of nature placed a constant check on population growth due

to the difficulty of finding food to support life for too large a population (Thomas Robert Malthus, *An Essay on the Principle of Population*, in *Population, Evolution, and Birth Control* 7 (Garret Hardin ed., 2d ed. 1969)); see also Edward J. Larson, *Evolution: The Remarkable History of a Scientific Theory* 7, 13-51 (2004) [hereinafter Larson, *Evolution*].

[FN96]. See Larson, *Evolution*, supra note 95, at xiii-xiv (“Darwin's theory ripped through science and society, leaving little unchanged by its force.”).

[FN97]. See *id.*; see also Wilson, supra note 95, at 206.

[FN98]. Darwin, supra note 94, at 114-29; see also The University of California Museum of Paleontology, Berkeley, *Understanding Evolution: Natural Selection*, http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_25 (last visited Sept. 9, 2007) [hereinafter The University of California Museum of Paleontology, Berkeley, *Understanding Evolution*].

[FN99]. See The University of California Museum of Paleontology, Berkeley, *Understanding Evolution*, supra note 98; see also Darwin, supra note 94, at 130-31.

[FN100]. See The University of California Museum of Paleontology, Berkeley, *Understanding Evolution*, supra note 98.

[FN101]. *Id.*

[FN102]. *Id.*

[FN103]. See ReligiousTolerance.org, *Public Beliefs About Evolution and Creationism* (May 7, 2007), http://www.religioustolerance.org/ev_publi.htm (last visited Sept. 9, 2007) [hereinafter ReligiousTolerance.org, *Public Beliefs*] (showing results of a 1991 and 1997 Gallup Poll, as well as results of other surveys, asking American adults about their views). The Gallup Poll participants could choose from the creationist view, theistic evolution, and naturalistic evolution. *Id.* Forty-nine percent of the respondents chose either theistic evolution or naturalistic evolution. *Id.* The 1991 poll shows interesting results based on gender: Men who believe in creationism over theistic evolution - 39% compared to 45%; women - 53% compared to 36%. *Id.* Discrepancies are seen in income differences as well: for those whose salary was less than \$20,000- 59% believe in creationism versus 28% who believe in theistic evolution. *Id.* On the other hand, for those respondents whose income was above \$50,000, only 29% believe in creationism while 50% believe in theistic evolution. *Id.* In 2005, the Gallup Poll was conducted again; little differences are seen between the 2005 results and those from 1991. Compare *id.*, with Dan Vergano & Cathy Lynn Grossman, *The Whole World, From Whose Hands?*, USA Today, Oct. 10, 2005, available at 2005 WLNR 16479430.

Even the Vatican does not entirely dismiss the concept of evolution. International Theological Commission, *Communion and Stewardship: Human Persons Created in the Image of God*, http://www.vatican.va/roman_

curia/congregations/cfaith/cti_documents/rc_con_cfaith_doc_20040723_communion-stewardship_en.html (last visited Sept. 9, 2007). In 2004, The Vatican's International Theological Commission concluded that the creationism and evolutionary process views are not incompatible. *Id.*; see also Cardinal Christoph Schönborn, *Finding Design in Nature* (2005), <http://www.catholiceducation.org/articles/science/sc0060.html> (last visited Sept. 9, 2007) (specifically distinguishing the concepts of microevolution from macroevolution--stressing that the world was designed with a purpose and life did not appear as a result of random evolution).

[FN104]. See Eugenie C. Scott, *Creation or Evolution?*, 2 *Paleontological Society Papers*, Oct. 1996, http://www.ncseweb.org/resources/articles/6261_creation_or_evolution__1_9_2001.asp (last visited Sept. 9, 2007).

[FN105]. See *id.*

[FN106]. See, e.g., Larson, *Evolution*, *supra* note 95, at 221-23. Larson details the story of the “peppered moth,” which in the 1800s changed from a white moth with black speckles to a black moth - but only in industrial locations. *Id.* at 221. The moth remained speckled in rural areas. *Id.* In rural areas, the speckles allowed the moth to blend in with its surroundings of tree Arkansas. *Id.* On the other hand, the black moth blended better with soot-covered walls and buildings of industrial locations. *Id.* J.B.S. Haldane, a British biochemist, blended the theories of Darwin and geneticist (and botanist) Gregor Mendel to explain this adaptation and evolution of the moth's appearance. *Id.* at 222. But see Scott, *supra* note 104 (distinguishing the natural selection concept from a true evolutionary process and stating the peppered moth did not evolve as per the definition of evolution addressing species' adaptations over time and resulting in various species that share a common ancestor).

[FN107]. National Science Teachers Association, *supra* note 5, at 3.

[FN108]. See *supra* note 103; see also Isaak, *supra* note 68 (discussing differences in views among Flat Earthers, Geocentrics, Young-Earth Creationists, and Old-Earth Creationists, among others). The first two groups, Flat Earthers and Geocentrics, believe in a literal interpretation of the Bible and Genesis to the degree of believing that some sort of dome covers the earth - showing the ancient Hebrew view of cosmic issues. *Id.* Young-Earth Creationists likewise believe in a literal interpretation of the Bible, but rely less on everything as stated in Genesis and believe in only some literal interpretations. *Id.* For example, Young-Earth Creationists believe the creation story as told in Genesis (although exactly which story is not always identified - not always do Young-Earth Creationists acknowledge two distinct stories.). *Id.*

[FN109]. See *supra* note 93 and accompanying text; see also *infra* notes 110-16 and accompanying text.

[FN110]. Pbs.org, *Evolution: Frequently Asked Questions about Evolution: Where We're Going* (2001), <http://www.pbs.org/wgbh/evolution/library/faq/cat03.html> (last visited

Sept. 9, 2007). This “common ancestry” idea led to the thought that man descended from apes - an idea that would lead to phrases such as “monkey trials” and the like. Scott, supra note 104. But actually, the common ancestry is the central focus with evolution. Id. Scientists do not purport that man descended from apes or monkeys; instead, the two species have an ancestor in common. At some point in history, a life form existed. That life form evolved into apes and monkeys. However, that same life form also evolved, ever so slowly into man - separately from the line that evolved into apes. See Pbs.org, Evolution: Frequently Asked Questions about Evolution: Where We're Going (2001), [http:// www.pbs.org/wgbh/evolution/library/faq/cat03.html](http://www.pbs.org/wgbh/evolution/library/faq/cat03.html) (last visited Sept. 9, 2007); Scott, supra note 74 (encouraging the use of clear definitions of evolution). In distinguishing microevolution from macroevolution, Scott stated the following:

The “Big Idea” is that living things (species) are related to one another through common ancestry from earlier forms that differed from them. Darwin called this “descent with modification,” and it is still the best definition of evolution we can use, especially with members of the general public and with young learners. Descent with modification makes biology make sense.

Id.

[FN111]. See The University of California Museum of Paleontology, Berkeley, Introduction to Evolution, supra note 92; see also John Wilkins, Macroevolution: Its Definition, Philosophy and History, The TalkOrigins Archive, Sept. 23, 2006, <http://www.talkorigins.org/faqs/macroevolution.html> (last visited Sept. 9, 2007) (explaining that macroevolution “means at least the splitting of a species into two....”).

[FN112]. Interestingly, Darwin never addressed how humans fit in the picture of evolution. See, e.g., John C. Greene, The Death of Adam: Evolution and Its Impact on Western Thought 309 (1959). And antievolutionists have long criticized the concept of evolution due to missing pieces in the evolutionary puzzle showing the trail of humans' formation. But just recently scientists discovered the “missing link” in the evolutionary time-table. See Seth Borenstein, Latest Fossil Find Strengthens Chain of Human Evolution, Associated Press, Apr. 12, 2006, available at 4/12/06 APDATASTREAM 07:19:08.

[FN113]. See The University of California Museum of Paleontology, Berkeley, Introduction to Evolution, supra note 92.

[FN114]. Edward O. Wilson, Let's Accept the Fault Line Between Faith and Science, USA Today, Jan. 15, 2006, available at 2006 WLNR 840576.

[FN115]. Id.

[FN116]. See Pbs.org, Evolution: Frequently Asked Questions about Evolution: Where We Came From (2001), [http:// www.pbs.org/wgbh/evolution/library/faq/cat02.html](http://www.pbs.org/wgbh/evolution/library/faq/cat02.html) (last visited Sept. 9, 2007).

[FN117]. Jim Holt, *Supernatural Selection*, N.Y. Times, Apr. 14, 2002, at 12 (reviewing *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives* (Robert T. Pennock ed., 2001)).

[FN118]. ARN.org, *What is Intelligent Design?*, <http://www.arn.org/idfaq/What%20is%20intelligent%20design.htm> (last visited Sept. 9, 2007) [hereinafter ARN.org].

[FN119]. *Id.*; see also *Darwin or Design?*, *Christian Sci. Monitor*, Feb. 22, 2002, at 8, available at 2002 WLNR 1549524.

[FN120]. See ARN.org, *supra* note 118.

[FN121]. See *id.*; see also Holt, *supra* note 117, at 12; see also Stephen C. Meyer, *The Origin of Biological Information and the Higher Taxonomic Categories*, 117 *Proc. of the Biological Soc'y of Wash.* 213, 234 (2004). See generally William Paley, *Natural Theology or Evidence of the Existence and Attributes of the Deity, Collected from the Appearances of Nature* (Matthew D. Eddy & David Knight eds., Oxford University Press 2006) (1802).

[FN122]. See William A. Dembski, *Intelligent Design: The Bridge Between Science & Theology* 153-83 (InterVarsity Press 1999) (1973).

[FN123]. See *id.* at 106.

[FN124]. *Id.* at 113.

[FN125]. See *supra* note 106 and accompanying text.

[FN126]. See Holt, *supra* note 117, at 12.

[FN127]. See ARN.org, *supra* note 118 (“[N]ature shows tangible signs of having been designed by a preexisting intelligence.”).

[FN128]. See *infra* notes 431-50 and accompanying text.

[FN129]. Dembski, *supra* note 122, at 247 (explaining one of the presuppositions scientific creationism holds is that “[t]he biblical account of creation recorded in Genesis is scientifically accurate.”).

[FN130]. See ARN.org, *supra* note 118.

[FN131]. For example, when discussing this issue while working on this article, M.B. gave her story. Interview with M.B., *Nutritionist* (Mar. 2003) (I prefer not to disclose the name of the person with whom I had this conversation due to the delicate nature of some persons' choice of discussing a disbelief in God; however, what this friend revealed has

been echoed in conversation after conversation about this topic - believing in a “designer” without believing in the Christian God.). Based on the teachings M.B. had been exposed to as a child, she did not believe in God as presented to her. Id. However, during college, while pursuing her degree in nutrition, she took many classes in biology and chemistry, and thoroughly studied organisms and their biological systems. Id. M.B. remarked that what she saw made her think that although she might not believe in God, she believed that life was so complex and so delicate, that something “bigger than herself” must be involved. Id. For many people, this concept represents intelligent design.

[FN132]. Compare ARN.org, supra note 118, and Dembski, supra note 122, at 106, with Ham, supra note 61, and Isaak, supra note 68.

[FN133]. See, e.g., Christoph Cardinal Schönborn, *The Designs of Science, First Things*, Jan. 2006, at 34, available at 2006 WLNR 7461861.

[FN134]. Id.; see also ARN.org, supra note 118.

[FN135]. See ARN.org, supra note 118.

[FN136]. See supra notes 118-35.

[FN137]. Jason Rosenhouse, *Young Earth Creationists: Creation Conference in Lynchburg*, 12 *Skeptic*, 2006, at 11, 15.

[FN138]. Matthew J. Brauer & Daniel R. Brumbaugh, *Biology Remystified: The Scientific Claims of the New Creationists*, in *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives* 289, 290 (Robert T. Pennock ed., 2001).

[FN139]. Rosenhouse, supra note 137, at 15.

[FN140]. Id. Natural theologians, though, believe that this supernatural being is accessible to all without the need of intervening scriptures or explanations from a structured religion - belief can be acquired simply thorough observation of nature. See *The American Heritage Dictionary of the English Language*, supra note 59, at 1798, available at <http://www.bartleby.com/61/16/N0031600.html> (last visited Sept. 9, 2007).

[FN141]. See Rosenhouse, supra note 137, at 11-12 (discussing Dr. Georgia Purdom's talk, “The Intelligent Design Movement: How Intelligent Is It?”). Dr Purdom argued that if a supernatural being was responsible for creation without that creation having occurred as per the story of Genesis, then the supernatural being was responsible for creating not only good, but also the negative aspects of life such as viruses and pathogens. Id. Creationists, however, believe that original sin - the fall of man as told in Genesis - is responsible for all the bad that exists. See, e.g., *All About Creation, Original Sin and Creation*, <http://www.allaboutcreation.org/original-sin.htm> (last visited Oct. 17, 2007).

[FN142]. See Dembski, *supra* note 122, at 105-06; (discussing the idea that “organisms are the product of an intelligence”); see also *supra* notes 52-53 and accompanying text.

[FN143]. Like groups that emerged to promote creation-science, groups advocate for the concept of intelligent design. One such group is the Center for Science and Culture. That group promotes the following idea: “We are skeptical of claims for the ability of random mutation and natural selection to account for the complexity of life. Careful examination of the evidence for Darwinian theory should be encouraged.” Center for Science and Culture, *A Scientific Dissent from Darwinism*, <http://www.dissentfromdarwin.org> (last visited Sept. 9, 2007).

[FN144]. Some go so far as to refer to intelligent design as a “dangerous ... manifestation of creationism.” Barbara Forrest, *The Wedge at Work: How Intelligent Design Creationism is Wedging Its Way into the Cultural and Academic Mainstream*, in *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives* *supra* note 138, at 5, 5.

[FN145]. Richard John Neuhaus, *America as a Religion*, *First Things*, Apr. 2005, at 57, 59 (discussing an editorial piece from *The Washington Post*), available at http://www.firstthings.com/article.php3?id_article=5428.

[FN146]. See *id.* at 59-60.

[FN147]. See, e.g., Matthews, *supra* note 22, at 14. Abraham is credited with being one of the first to widely talk about one god versus the prior held beliefs of polytheism.

[FN148]. See, e.g., Torah.org, *The 24 Books of the Hebrew Bible*, <http://www.torah.org/learning/basics/primer/torah/bible.html> (last visited Oct. 17, 2007) (listing Genesis as one of the Five Books of Moses); see also *id.* at <http://www.torah.org/learning/basics/primer/torah/bereishis.html> (detailing that Genesis tells the story of the creation of the world).

[FN149]. See David Levinson, *Religion: A Cross-Cultural Dictionary* 94 (1996).

[FN150]. See Michael Molloy, *Experiencing the World's Religions: Tradition, Challenge, and Change* 411 (2d ed. 2002).

[FN151]. See *id.*

[FN152]. Molloy, *supra* note 150, at 65; see also Levinson, *supra* note 149, at 83, 85.

[FN153]. See Molloy, *supra* note 150, at 65; see also Levinson, *supra* note 149, at 85. Levinson describes the “great cosmic reality that was beyond human senses” - “neither darkness nor light” that existed prior to the formation of the world. *Id.* The goal of many Hindus is to find that quest of knowledge - for realizing the presence of the One accomplished through meditation and rituals. *Id.*

[FN154]. Molloy, *supra* note 150, at 65.

[FN155]. *Id.*

[FN156]. See *id.* Molloy notes that the account, though, also admits uncertainty about exactly how the world and life began. *Id.* See also C. Mackenzie Brown, Hindu and Christian Creationism: “Transposed Passages” in the Geological Book of Life, 37 *Zygon J. of Religion & Sci.* 95, 98 (2002) [hereinafter Brown, Hindu and Christian Creationism].

[FN157]. See Levinson, *supra* note 149, at 25, 81.

[FN158]. See Molloy, *supra* note 150, at 119.

[FN159]. Masao Abe, Buddhism, in *Our Religions*, *supra* note 24, at 69, 83; see Molloy, *supra* note 150, at 119. However, some argue that Buddhism gives some sort of hope that a supernatural something exists. See *id.* at 223.

[FN160]. See Abe, Buddhism, in *Our Religions*, *supra* note 24, at 84.

[FN161]. See, e.g., Matthews, *supra* note 22, at 36-37.

[FN162]. *Id.* at 37.

[FN163]. Levinson, *supra* note 149, at 245.

[FN164]. See Molloy *supra* note 150, at 210. For this reason, some argue Confucianism is more philosophy than religion. *Id.*

[FN165]. See *supra* note 153 and accompanying text.

[FN166]. See *supra* notes 120-43.

[FN167]. See, e.g., *Scopes*, 289 S.W. at 363-64 n.1.

[FN168]. See *Epperson v. Arkansas*, 393 U.S. at 107-09 (1968) (stating “Arkansas' law cannot be defended as an act of religious neutrality.”).

[FN169]. See *infra* notes 301-02 and accompanying text.

[FN170]. See, e.g., *Kitzmiller v. Dover Area Sch. Distr.*, 400 F. Supp. 2d 707, 764 (M.D. Pa. 2005) (holding that a school district violated the Establishment Clause when it required students to hear that the theory of intelligent design is an alternative to the theory of evolution).

[FN171]. See ARN.org, *supra* note 118.

[FN172]. See, e.g., *Kitzmiller*, 400 F. Supp. 2d at 764 (holding that the intelligent design policy of the school is unconstitutional).

[FN173]. U.S. Const. amend. I. The First Amendment is, of course, applicable to the states through the Fourteenth Amendment. See *Wallace*, 472 U.S. at 49-50.

[FN174]. *Lemon v. Kurtzman*, 403 U.S. 602, 612-13 (1971).

[FN175]. *County of Allegheny*, 492 U.S. at 601 (first time majority of the Supreme Court implemented the endorsement test).

[FN176]. 403 U.S. 602 (1971). The Court explained that even though a law might not actually establish a religion, if a law respected the establishment of a religion such that it would be “a step that could lead to such establishment and hence offend the First Amendment.” *Id.* at 612.

[FN177]. Since 1971, the Court has used the *Lemon* test when addressing constitutionality of legislation under the Establishment Clause. However, when focusing on the historical acceptance of parts of legislation, the Court determined the *Lemon* test would not be useful when addressing matters based on historical practices. *Marsh v. Chambers*, 463 U.S. 783 (1983). In addition, when the entanglement of religion and public schools is at issue, the Court noted the historical approach is not helpful; when the Establishment Clause was written, public education was not widely available. See *Wallace*, 472 U.S. at 80 (O'Connor, J., concurring).

[FN178]. *Lemon*, 403 U.S. at 612.

[FN179]. *Id.*

[FN180]. *Id.*

[FN181]. *Id.* at 612-13 (citations omitted).

[FN182]. *Id.*

[FN183]. *Id.* at 612 (“[T]he statute must have a secular legislative purpose....”).

[FN184]. See, e.g., *Lynch v. Donnelly*, 465 U.S. 668, 690 (1984) (O'Connor, J., concurring) (writing to offer clarification of the Court's Establishment Clause doctrine).

[FN185]. *Id.* (O'Connor, J., concurring).

[FN186]. See *id.* at 690-91 (discussing the dual purposes for posting the Ten Commandments as analyzed in *Stone v. Graham*, 449 U.S. 39 (1980)).

[FN187]. *Edwards v. Aguillard*, 482 U.S. at 586-87. The Court looked at the Louisiana stated purpose of protecting academic freedom in its balanced treatment act. *Id.* at 585-88. The Court determined that the act, in spite of the stated purpose, was not designed to actually protect academic freedom. *Id.* at 586. Because teachers were not allowed by the state to choose what they would teach, academic freedom did not apply to the situation. *Id.* at 586 n.6, 587. The Court noted that the act in essence removed academic freedom by mandating what must be taught. *Id.* at 586 n.6.

[FN188]. See *Wallace*, 472 U.S. at 59 (1985). Alabama had enacted a statute with a stated purpose of providing for a one-minute period of meditation in school. *Id.* at 40. However, Alabama already had such a statute in place. *Id.* The Court held that the secular purpose of the new statute was insufficient to overcome the religious purpose. *Id.* at 59. The Court applied this reasoning in *Edwards* and stated that because the Louisiana statute guided curriculum regarding the teaching of creation-science, but did nothing to address the curriculum for teaching evolution, and because the statute required creation-science to be taught when evolution was taught, the actual purpose of the act was to discredit the theory of evolution. 482 U.S. at 588-89.

[FN189]. The Court noted in 2005 that although on only four occasions a statute has failed this second prong, “the secular purpose requirement alone... nevertheless serves an important function.” *McCreary County*, 545 U.S. at 859 (quoting *Wallace*, 472 U.S. at 75 (O’Connor, J., concurring)). The four cases the Court cited as having failed the second prong are: *Santa Fe Indep. Sch. Distr. v. Doe*, 530 U.S. 290, 308-09 (2000); *Edwards v. Aguillard*, 482 U.S. at 586-93; *Wallace*, 472 U.S. at 56-61; and *Stone*, 449 U.S. at 41 (per curiam)).

[FN190]. *Lemon*, 403 U.S. at 612; see *Lynch*, 465 U.S. at 690 (O’Connor, J. concurring); see also Robert R. Baugh, *Applying the Bill of Rights to the States: A Response to William P. Gray, Jr.*, 49 *Ala. L. Rev.* 551, 595 (1998).

[FN191]. *Lynch*, 465 U.S. at 690 (O’Connor, J. concurring).

[FN192]. See *id.* (O’Connor, J., concurring); see also Baugh, *supra* note 190, at 595. The Establishment Clause is blatantly violated when government regulation has the effect of choosing one religion over another religion. By choosing a specific type of religion, not only is the effect favoring religion itself, but it goes beyond with an even stronger exception of advancing a particular religion. “The clearest command of the Establishment Clause is that one religious denomination cannot be officially preferred over another.” *Larsen v. Valente*, 456 U.S. 228, 244 (1982).

[FN193]. See *Lynch*, 465 U.S. at 691-92 (O’Connor, J. concurring).

[FN194]. *Id.* at 692 (O’Connor, J. concurring) (citing cases with religious effects that were not held to violate the Establishment Clause: *Walz v. Tax Comm’n*, 397 U.S. 664 (1970) (religious, educational, and charitable organization tax exemptions); *McGowan v.*

Maryland, 366 U.S. 420 (1961) (mandatory Sunday closing); *Zorach v. Clauson*, 343 U.S. 306 (1952) (released from school for off-campus religious instruction)).

[FN195]. *Lemon*, 403 U.S. at 613 (citing *Walz*, 397 U.S. at 674). The Court derived the third prong from the test set out in *Walz*. See *Walz*, 397 U.S. at 674.

[FN196]. See Theologos Verginis, *ACLU v. Capitol Square Review and Advisory Board: Is There Salvation for the Establishment Clause? "With God All Things Are Possible,"* 34 *Akron L. Rev.* 741, 744 (2001).

[FN197]. *Lemon*, 403 U.S. at 615.

[FN198]. See *id.* at 614-15 (quoting *Walz*, 397 U.S. at 695). The unedited quote provides: "Although the very fact of neutrality may limit the intensity of involvement, government participation in certain programs, whose very nature is apt to entangle the state in details of administration and planning, may escalate to the point of inviting undue fragmentation." *Walz*, 397 U.S. at 695.

[FN199]. See, e.g., *McCreary County*, 545 U.S. at 861 (Ten Commandments monument on government property). But see *id.* at 900 (Scalia, J., dissenting).

As bad as the *Lemon* test is, it is worse for the fact that, since its inception, its seemingly simple mandates have been manipulated to fit whatever result the Court aimed to achieve. Today's opinion is no different. In two respects it modifies *Lemon* to ratchet up the Court's hostility to religion.

Id.

[FN200]. See, e.g., William P. Marshall, *What is the Matter with Equality?: An Assessment of the Equal Treatment of Religion and Nonreligion in First Amendment Jurisprudence*, 75 *Ind. L.J.* 193, 195 (2000) (stating the *Lemon* test has been "weakened, recharacterized, or simply not applied in recent decisions." (footnotes omitted)). The *Lemon* test, although still used, is not without criticism. See, e.g., *Lamb's Chapel v. Ctr. Moriches Union Free Sch. Dist.*, 508 U.S. 384, 398 (Scalia, J., concurring). As Justice Scalia stated:

As to the Court's invocation of the *Lemon* test: Like some ghoul in a late-night horror movie that repeatedly sits up in its grave and shuffles abroad, after being repeatedly killed and buried, *Lemon* stalks our Establishment Clause jurisprudence once again, frightening the little children and school attorneys of ... [the] School District.

Id.

[FN201]. *County of Allegheny*, 492 U.S. at 592 (listing multiple cases in which the Court applied the *Lemon* test) (footnote omitted).

[FN202]. *Id.*

[FN203]. *Id.* at 592-94.

[FN204]. See *Marshall*, supra note 200, at 195.

[FN205]. See *County of Allegheny*, 492 U.S. at 592-93.

[FN206]. *Wallace*, 472 U.S. at 60.

[FN207]. *Edwards v. Aguillard*, 482 U.S. at 593; see also *Sch. Dist. of Grand Rapids v. Ball*, 473 U.S. 373, 389-92 (1985), overruled by *Agostini v. Felton*, 521 U.S. 203 (1997) (school's educational program); *Tex. Monthly, Inc. v. Bullock*, 489 U.S. 1, 17 (1989) (tax exemption for religious periodicals).

[FN208]. *County of Allegheny*, 492 U.S. at 593.

[FN209]. *Id.* (citing *Sch. Distr. of Abington Twp., Pennsylvania v. Schempp*, 374 U.S. 203, 305 (1963) (Goldberg, J., concurring)).

[FN210]. *Id.* (citing *Edwards v. Aguillard*, 482 U.S. at 593).

[FN211]. *Id.* (quoting *Epperson v. Arkansas*, 393 U.S. at 104) (internal quotation mark omitted).

[FN212]. See *Santa Fe Indep. Sch. Distr.*, 530 U.S. at 302.

[FN213]. *Id.* at 308 (citing *Wallace*, 472 U.S. at 73) (O'Connor, J., concurring)).

[FN214]. *Id.* at 309-10 (quoting *Lynch*, 465 U.S. at 688 (O'Connor, J., concurring)).

[FN215]. *Id.* at 310.

[FN216]. See, e.g., *Lamb's Chapel*, 508 U.S. at 398 (Scalia, J., concurring) (using *Lemon*); see, e.g., *Zelman v. Simmons-Harris*, 536 U.S. 639, 668-71 (2002) (majority not applying *Lemon*); *Good News Club v. Milford Cent. Sch.*, 533 U.S. 98, 106-07 (2001) (not applying *Lemon*).

[FN217]. See *Marshall*, supra note 200, at 194.

[FN218]. *Van Orden v. Perry*, 545 U.S. 677, 686 (2005).

[FN219]. *Id.* (comparing *Wallace*, 472 U.S. 38, with *Marsh*, 463 U.S. 783).

[FN220]. *Id.* (quoting *Hunt v. McNair*, 413 U.S. 734, 741 (1973)) (internal quotation marks omitted).

[FN221]. See supra notes 216-20 and accompanying text.

[FN222]. See *Moore*, supra note 76, at 28-29.

[FN223]. See *id.*

[FN224]. *Id.* at 7.

[FN225]. Tenn. Code Ann. § 49-1922 (1925) (repealed 1967), quoted in *Scopes*, 289 S.W. at 363. William Jennings Bryan, three-time presidential candidate at the turn of the twentieth century, influenced the Tennessee legislator who introduced the legislation in Tennessee. Moore, *supra* note 76, at 7-8. Bryan, shifting “from the politics of ballot boxes to the politics of saving souls,” had delivered lectures on the issues of evolution and creationism, and talks were combined in pamphlets to send to state legislators. *Id.* at 7. John Washington Butler received one such pamphlet and one day “after breakfast at home,” Butler drafted the legislation he introduced to the Tennessee house, commonly known as “The Butler Act.” *Id.* at 7-8.

[FN226]. Moore, *supra* note 76, at 9; see also Larson, *Trial and Error*, *supra* note 74, at 57. According to Larson, “Governor Peay doubted that the law would ever be enforced.” *Id.* Based on the “wide latitude” the law allowed, “no current science textbook [presented language] violat[ing] the law.” *Id.* On the other hand, Larson quotes the governor as describing the new law as “a popular ‘protest against an irreligious tendency to exalt so-called science, and deny the Bible in some schools.’” *Id.*

[FN227]. Larson, *Trial and Error*, *supra* note 74, at 56-58.

[FN228]. *Id.* at 58.

[FN229]. *Id.* at 60.

[FN230]. *Id.* *Scopes* did not actually teach biology; he merely conducted a review. *Id.* *Scopes* “was not even [present] in school on the day mentioned in his indictment;” he was home ill. Moore, *supra* note 76, at 36. But *Scopes* also never testified at his own trial. *Id.* at 19. His attorney, Clarence Darrow, stated in court that “every[thing] ... that was said against ... [Scopes] ... was true.” *Id.* After all, the trial was not about denying that *Scopes* had broken the law; the trial was about fighting the law.

[FN231]. Moore, *supra* note 76, at 9-10. *Scopes* described the trial that occurred as a result of his arrest as a “drugstore discussion that got past control.” *Id.* at 10. And although the law originally passed without much ado, once the law was announced as being put to the test, people “began choosing sides.” *Id.* Before the trial, and while the legislation had been pending, college groups kept silent over fear of losing funding. *Id.* at 8. Also during the legislation's development, newspapers did not speak against the proposed law, choosing to ignore it if not supportive. *Id.* Other groups likewise either had spoken in favor of the law or ignored it while it was pending approval. *Id.*

[FN232]. See, e.g., Douglas O. Linder, *State v. John Scopes* (“The Monkey Trial”), <http://www.law.umkc.edu/faculty/projects/ftrials/scopes/evolut.htm> (last visited Oct. 20, 2007).

[FN233]. See Moore, *supra* note 76, at 10-11.

[FN234]. *Id.* at 14-16.

[FN235]. *Id.* at 22.

[FN236]. See *id.* at 17-22.

[FN237]. *Id.* at 22. But the trial was not over quite yet. After the verdict was read and the fine imposed, another prayer was said. *Id.*

[FN238]. See *id.* at 22.

[FN239]. Moore, *supra* note 76, at 22.

[FN240]. *Id.* (“Darrow... promised that the defense would ‘not take an exception, either way you want it, because we want the case passed on by the higher court.’”).

[FN241]. See *id.* (“Darrow had just sanctioned the error that would ultimately prevent the case from reaching the U.S. Supreme Court.”).

[FN242]. See *id.*

[FN243]. *Scopes*, 289 S.W. 363; see also Moore, *supra* note 76, at 23-25. The defense team “missed the deadline for filing the bill of exceptions” and therefore could not challenge the judge’s rulings. *Id.* at 23; see also *Scopes*, 289 S.W. at 363. The team, then, relied on its pretrial motion to quash that attacked the validity of the statute. *Scopes*, 289 S.W. at 363. The defense ultimately focused its appeal on the argument that the statute “was unconstitutional because it unreasonably restricted the liberty of teachers and students by establishing a preference in public schools for a particular religion.” Moore, *supra* note 76, at 24 (citation omitted).

[FN244]. Moore, *supra* note 76, at 24. Darrow responded to the State’s contention by reiterating that schools should teach science and were not developed to teach religion, stating: “We are once more fighting the old question, which after all is nothing but a question of intellectual freedom of man.” *Id.*

[FN245]. *Scopes*, 289 S.W. at 367.

[FN246]. *Id.* (stating “the trial judge exceeded his jurisdiction in levying this fine and we are without power to correct his error. The judgment must accordingly be reversed.”).

[FN247]. Id.

[FN248]. Id.

[FN249]. Id.

[FN250]. Id. at 364-65.

[FN251]. Moore, *supra* note 76, at 17, 22.

[FN252]. See *id.* at 22-23.

[FN253]. See *Scopes*, 289 S.W. at 367.

[FN254]. See, e.g., *Epperson v. Arkansas*, 393 U.S. at 98.

[FN255]. Id. at 99 & n.3 (quoting Ark. Code Ann. § 80-1627 (1929) (repealed 1960)).

[FN256]. See Moore, *supra* note 76, at 31. In January 1926, when a similar law was proposed in Mississippi, supporters begged the legislature to “prevent evolution ‘from injecting its poison into the minds and hearts of school-children of this State.’” Id. at 28-29. The legislation became law that March. Id. at 28. Some groups warned, “evolution would lead to communism and other social ills.” Id. On the other hand, some antievolution measures were met with resistance and sarcasm such as a proposed bill mandating that all water run uphill, that the proposed antievolution legislation apply only to persons who believed the world was flat, and that the punishment for violating an antievolution measure be imprisonment in the city zoo. Id. at 28.

[FN257]. See *Epperson v. Arkansas*, 393 U.S. at 98; see also Moore, *supra* note 76, at 24 (“Would not the state of Tennessee be committing a tragedy... if it did not intervene to prevent the teaching in her public schools of a dogma conceded to destroy the minds of the people... ?”) (quoting argument by the State at the Supreme Court oral arguments in *Scopes*, 289 S.W. 363); Moore, *supra* note 76, at 29 (noting that biology professors in “Georgia, South Carolina, and elsewhere” were “forced ... to resign” and Baylor University refused to hire “any teacher who ‘doubts God as the creator of the world....’”).

[FN258]. See Moore, *supra* note 76, at 29.

[FN259]. Id. at 32. Most publishers removed any mention of evolution from school textbooks after the *Scopes* trial. Id. “[B]y 1942, most high school ... [students were not taught anything] about evolution.” Id. (citation omitted).

[FN260]. Id. at 32-33. The President requested Congress to pass the National Defense of Education Act; the United States had fallen behind the Soviet Union, and legislators were worried. Id. The Act encouraged the development of “state-of-the-art science textbooks.” Id.

[FN261]. *Epperson v. Arkansas*, 393 U.S. at 99; Moore, *supra* note 76, at 47.

[FN262]. *Epperson v. Arkansas*, 393 U.S. at 99; Moore, *supra* note 76, at 47. The author of the text had removed mention of evolution after 1926, but in 1965, with that founding author no longer involved, a discussion of evolution and Darwin's theories was present once again. See Larson, *Trial and Error*, *supra* note 74, at 98 (discussing James H. Towle & Albert Otto, *Modern Biology* (1965)).

[FN263]. *Epperson v. Arkansas*, 393 U.S. at 98-99 (Arkansas state law banned the teaching of any theory that man “ascended or descended from a lower order of animals”).

[FN264]. *Id.* at 100.

[FN265]. See *id.* at 98-99. Much like the trial in *Scopes* had been orchestrated, so too was this one in Arkansas. See Moore, *supra* note 76, at 48. The Arkansas Education Association had spoken out against antievolution laws, despite the Arkansas's governor's continued support of the law “as a safeguard to keep way-out teachers in line.” *Id.* 47-48. But the Arkansas Education Association sought to challenge the law. *Id.* And it used a kindergarten teacher to help find Susan Epperson, the “ideal plaintiff” - raised in Arkansas, graduate of “a church-affiliated college,” and a “devout Christian.” *Id.* But this time the case was brought seeking a declaratory injunction; Epperson did not have to be fired. *Id.* at 48 & 48 n.13. And the Arkansas Education Association provided her attorney, Eugene R. Warren. *Id.* at 48. But Epperson agreed with the issue; when shown the complaint drafted by Warren that challenged the Arkansas law, she said, “[W]hen a law is wrong you should try to do something about it.... It was really nothing but cowardice that would have kept me from signing the complaint....” *Id.* She agreed to challenge the law also over her idea of her “responsibilities both as a teacher... and as an American citizen.” *Id.*

[FN266]. Moore, *supra* note 76, at 52. Chancellor Reed differed from the judge in *Scopes* also in the type of testimony he allowed. Whereas *Scopes* had involved Darrow's infamous questioning of Bryan on religion and his religious views, Chancellor Reed “refused to allow questions about ... personal beliefs” and allowed no testimony relating to the merits of evolution or creationism. *Id.* Chancellor Reed also allegedly intentionally scheduled the trial for April 1, April Fool's Day, as an expression of his contempt for the anti-evolution laws. *Id.* at 52 n.14.

[FN267]. See *id.* at 52 (quoting the 1966 “Memorandum Opinion”).

[FN268]. See *Epperson v. Arkansas*, 393 U.S. at 100 nn.4-5 (discussing the Chancery Court opinion, which was not officially published).

[FN269]. See *id.* at 100 n.5.

[FN270]. *Id.*

[FN271]. Moore, *supra* note 76, at 54 (quoting the 1966 “Memorandum Opinion”).

[FN272]. *State v. Epperson*, 416 S.W.2d 322, 322 (Ark. 1967) (per curiam).

[FN273]. *Id.*

[FN274]. See *Epperson v. Arkansas*, 393 U.S. at 100.

[FN275]. *Id.* at 103. But see *id.* at 111-12 (Black, J., concurring) (stating the statute should be struck down for vagueness because under the Arkansas Supreme Court's opinion, a teacher could not know what action was prohibited).

[FN276]. *Id.* at 103.

[FN277]. *Id.*

[FN278]. *Id.* at 104.

[FN279]. *Id.*

[FN280]. *Epperson v. Arkansas*, 393 U.S. at 105.

[FN281]. *Id.* (discussing *Meyer v. Nebraska*, 262 U.S. 390 (1923)). Justice Stewart, in his concurrence, noted:

A State is entirely free, for example, to decide that the only foreign language to be taught in its public school system shall be Spanish. But would a State be constitutionally free to punish a teacher for letting his students know that other languages are also spoken in the world? I think not.

Id. at 115-16 (Stewart, J., concurring).

[FN282]. *Id.* at 106.

[FN283]. *Id.* (citing *Everson v. Bd. Educ.*, 330 U.S. 1, 15 (1947)); see also Larson, *Trial and Error*, *supra* note 74, at 93-98. The Court had not analyzed many cases under the Establishment Clause at this point in history. It began in 1947 when faced with the question of whether the government could provide transportation to students who attended parochial schools. See *Everson*, 330 U.S. at 3; see also Larson, *supra* note 74, at 93-94. Before *Everson*, the only concern seemed to be that the government could not establish a state church that chose one denomination of Christianity over another (such as Anglican Church in England). *Id.* But in 1947, the Court faced a question of constitutionality and the Establishment Clause: how far did the clause reach? In 1948, the Court decided that public school buildings could not be used to deliver religious doctrine. See *McCullum v. Bd. of Educ.*, 333 U.S. 203, 203 (1948); see also Larson, *supra* note 74, at 94. Then, in the 1960s, required school prayer and mandatory Bible readings were held to be unconstitutional. See *Sch. Distr. of Abington Twp., Pennsylvania*, 374 U.S. at

223; *Engle v. Vitale*, 370 U.S. 421, 424-25 (1962). After the decision in Abington, the American Civil Liberties Union alerted its area organizations to “review religious practices in their public schools.” Larson, *Trial and Error*, *supra* note 74, at 95 (quoting ACLU, *Freedom through Dissent* 42nd Annual Report of ACLU, July 1, 1961 to June 30, 1962 (1963)). But the Court has also stated that its decisions should not be interpreted to establish a “religion of secularism.” *Sch. Distr. of Abington Twp., Pennsylvania*, 374 U.S. at 225. The Court, even then, was striving for neutrality; it did not want to prefer “those who believe in no religion over those who do believe.” *Id.* (citation omitted).

[FN284]. *Epperson v. Arkansas*, 393 U.S. at 107. But some scholars believe the State failed to accurately provide the Court with the true purpose behind the law. See Larson, *Trial and Error*, *supra* note 74, at 116. According to Larson, Justice Fortas was ill-informed of the purpose behind the Arkansas law and based much of the language in the opinion on assumptions. See *id.* at 115.

[FN285]. See *Epperson v. Arkansas*, 393 U.S. at 108 n.16.

[FN286]. *Id.* at 107-08. The Court decided *Epperson* three years before it formulated the test in *Lemon*, but the focus of the Court's analysis, even if not called by a specific test name, foresaw some of the *Lemon* prongs. See *id.* at 105-09.

[FN287]. *Id.* at 109.

[FN288]. *Id.* Justice Black, on the other hand, questioned whether the Court's opinion actually infringed on the religious freedom of people who thought evolution was anti-religious. *Id.* at 113 (Black, J., concurring). For if the State “must be neutral,” then it could neither favor religion over anti-religion nor anti-religion over religion. *Id.* (Black, J., concurring). Both theories received criticism and challenge. *Id.* (Black, J., concurring). And nothing indicated that the biblical view was being presented in schools. *Id.* (Black, J., concurring). Therefore, by allowing evolution, the Court was choosing one view to present and was not, in essence, providing neutrality. *Id.*; see also *infra* notes 479-87 and accompanying text.

[FN289]. *Epperson v. Arkansas*, 393 U.S. at 109. The Tennessee law, though, had been repealed a year earlier. Another teacher had allegedly been fired for teaching evolution and a parent had filed a lawsuit because the law limited his son's education. Moore, *supra* note 76, at 57. Before June of that year, the Tennessee legislature voted to repeal its law. *Id.* at 59. The plaintiffs withdrew their lawsuits. See *id.* at 59.

[FN290]. See *supra* notes 275-89 and accompanying text.

[FN291]. See *supra* notes 275-89 and accompanying text.

[FN292]. See Moore, *supra* note 76, at 63.

[FN293]. For example, The Institute for Creation Research published many books “endorsed by such fundamentalists as Tim LaHaye and Jerry Falwell.” *Id.* at 63. Texas banned its Biological Sciences Curriculum Study texts, and the state required a disclaimer on textbooks that stated “evolution [wa]s [only] a theory ...” *Id.* People still argued that evolution would ““destroy... moral values”” and erase distinction between not only races but also sexes. *Id.* at 65. And in the late 1970s, a group formed by laypersons, Citizens for Fairness in Education, introduced creation-evolution bills in several state legislatures. See Norman L. Geisler, *The Creator in the Courtroom: Scopes II*, 3 (1982).

[FN294]. See *supra* notes 275-89 and accompanying text.

[FN295]. See Moore, *supra* note 76, at 65.

[FN296]. *Id.* With an issue as emotional as one involving religion, these groups did little to foster good relations. MACOS (Man: A Course of Study), a pro-evolution curriculum funded by the federal government, not only supported the theory of evolution, but used language directly against ideas behind creationism, attacking not only religion, but traditional notions of family and work:

It will not do to dream nostalgically of simpler times when children presumably grew up believing in the love of God, the virtue of hard work, the sanctity of family, and the nobility of the Western historical tradition.... We must understand... what causes... these things.

Id. at 63-64 (internal quotation marks omitted).

[FN297]. *Id.* at 65.

[FN298]. See *id.* (discussing changes made by the California Textbook Committee).

[FN299]. Most books, that is, except most of those in Texas. *Id.* at 63. By the mid 1970s, eighty percent “of the biology textbooks adopted ...[in] Texas ... did not even mention evolution.” See *id.* at 63 n.1 (citation omitted).

[FN300]. See *supra* notes 275-89 and accompanying text.

[FN301]. In California, a father sued claiming that “evolution [being] taught dogmatically as fact” “violat[ed] his children's rights.” Moore, *supra* note 76, at 66-67. The children pleaded that the system “taught that their religious beliefs [were] wrong.” *Id.* at 67. The plaintiff originally requested equal time be given to creationism as was given to evolution discussions in the classroom, but he abandoned that complaint before trial began. *Id.* (discussing *Seagraves v. State*, No. 278978 (Sacramento Super. Ct. 1981)). See also *Wright v. Houston Ind. Sch. Dist.*, 366 F. Supp. 1208, 1209 (S.D. Tex. 1972) (involving a creationist-initiated lawsuit in which the plaintiff alleged her daughter was being taught a ““religion of secularism””). In *Wright*, the court, dismissing the case before trial, reasoned no evidence showed the district discouraged free discussion about all areas. *Id.* at 1210. Further, persons were not guaranteed not to be presented with ideas or concepts that were incompatible with their religious views. See *id.* at 1211. And finally,

offering equal time would intrude on the school system's authority to control its curriculum. See *id.*

[FN302]. Geisler, *supra* note 293, at 3. The idea of a balanced treatment “apparently was borrowed from broadcasting law, which long required equal time for opposing political candidates” in presenting opposing views. See Larson, *Trial and Error*, *supra* note 74, at 97.

[FN303]. See Geisler, *supra* note 293, at 3.

[FN304]. See Moore, *supra* note 76, at 72.

[FN305]. *Id.*

[FN306]. *Daniel v. Waters*, 515 F.2d 485, 489-92 (6th Cir. 1975).

[FN307]. See *id.* at 486-87.

[FN308]. See Moore, *supra* note 76, at 73.

[FN309]. *Id.*

[FN310]. See *infra* notes 368-80 and accompanying text.

[FN311]. See Moore, *supra* note 76, at 73. The book, *The Genesis Flood*, prompted much of the scientific debate and blending of the two theories regarding origin of life. *Id.* (discussing John D. Whitcomb & Henry M. Morris, *The Genesis Flood* (1989)).

[FN312]. *Id.* at 74.

[FN313]. See *id.* at 74-75; see also Wendell Bird, *Resolution for Balanced Presentation of Evolution and Scientific Creationism*, [http:// www.icr.org/article/153/](http://www.icr.org/article/153/) (last visited Oct. 20, 2007).

[FN314]. See Moore, *supra* note 76, at 74-75.

[FN315]. *Id.* at 75.

[FN316]. *Id.* at 75-76.

[FN317]. See Geisler, *supra* note 293, at 3; Moore, *supra* note 76, at 80.

[FN318]. 1981 Ark. Acts 1231, § 1.

[FN319]. *Id.*

[FN320]. Moore, *supra* note 76, at 80 (citation omitted).

[FN321]. *Id.* Perhaps this label was merely a ruse to ensure the bill would be passed. See *id.* But this purpose-change would eventually work against creationism proponents. See *infra* notes 352-74 and accompanying text.

[FN322]. Moore, *supra* note 76, at 82. Interestingly, the governor never even read this noted piece of legislation before signing it. *Id.* He justified this by simply stating if one theory was taught, both theories should be taught. *Id.*

[FN323]. *Id.* at 82-83; see also McClean, 529 F. Supp. at 1257.

[FN324]. Moore, *supra* note 76, at 83 (quoting plaintiff's opening statement).

[FN325]. *Id.* at 84 (quoting defense's opening statement).

[FN326]. See *supra* notes 176-200 and accompanying text.

[FN327]. McClean, 529 F. Supp. at 1258; see *supra* note 182.

[FN328]. McClean, 529 F. Supp. at 1264, 1272.

[FN329]. See *id.* at 1264.

[FN330]. *Id.* The plaintiff's pre-trial brief quoted the drafter of the bill as having encouraged "Christian political action" and noted that the sponsor of the bill said "he could not separate [the bill] from 'his belief in a Creator.'" See *The Legal Arguments: Excerpts from the Plaintiffs' Preliminary Outline and Pre-Trial Brief, in Creationism, Science, and the Law: The Arkansas Case 20, 23* (Marcel C. La Follette ed., 1983) [hereinafter *Creationism*].

[FN331]. McClean, 529 F. Supp. at 1265.

[FN332]. *Id.* at 1272.

[FN333]. *Id.* at 1268.

[FN334]. *Id.* at 1267.

[FN335]. *Id.* at 1261; Moore, *supra* note 76, at 88.

[FN336]. Moore, *supra* note 76, at 88; see also Susan P. Sturm, *Creationism, Censorship, and Academic Freedom*, in *Creationism*, *supra* note 330, at 125, 127.

[FN337]. See McClean, 529 F. Supp. at 1267-69.

[FN338]. See Michael Ruse, Creation-Science is Not Science, in Creationism, supra note 330, at 150, 150. Ruse, Florida State University's Lucyle T. Werkmeister Professor of Philosophy and the Director of the university's History and Philosophy of Science Program, appeared as an expert witness in McClean. See id. (identifying Ruse as an expert witness in the case).

[FN339]. See The Christian Research Society, CRS Statement of Belief, http://www.creationresearch.org/belief_wndw.htm (last visited Oct. 20, 2007). Persons must agree with the Statement of Belief to apply for membership. The Christian Research Society, Membership, <http://www.creationresearch.org/membership.htm> (last visited Oct. 20, 2007).

[FN340]. See McLean, 529 F. Supp. at 1269.

[FN341]. See Moore, supra note 76, at 90.

[FN342]. Id. The defendants did not present evidence to the court of having even been rejected for publication. Id. at 90 n.13. But subsequent to the trial, most such rejected articles have been rejected for not following scientific research standards--not for religious content. Id.

[FN343]. Id. at 91 (stating that “plaintiffs questioned creationists' ability to make scientifically meaningful interpretive statements about evolutionary theory.”).

[FN344]. Id.; see also Langdon Gilkey, The Creationist Controversy: The Interrelation of Inquiry and Belief, in Creationism, supra note 330, at 129, 129.

[FN345]. Mclean, 529 F. Supp. at 1266.

[FN346]. See id. at 1269.

[FN347]. See id.

[FN348]. See id.

[FN349]. See id. Judge Overton, who presided over the McClean trial, stated, “Much of the [creation-science] material was ‘more like propaganda than educational material’” and “warned schools against the teaching of creationism in public schools” Moore, supra note 76, at 92 (citation omitted).

[FN350]. Id. at 1264, 1272.

[FN351]. Moore, supra note 76, at 93. The ACLU did appeal the award of attorneys' fees, which had been reduced from \$1.4 million to \$357,768. Id. But the Eighth Circuit Court of Appeals affirmed the award. Id.

[FN352]. See *id.*; see also *infra* notes 353-98 and accompanying text.

[FN353]. See La. Rev. Stat. Ann. § 17:286.1:17:286.7 (1982) (repealed).

[FN354]. See Moore, *supra* note 76, at 99. Although the suit was brought on behalf of many plaintiffs, the first named plaintiff was Don Aguillard, a high-school biology teacher. *Id.* According to Aguillard, “‘creationism didn't belong in science classrooms.’” *Id.* (citation omitted).

[FN355]. See *Edwards v. Aguillard*, 482 U.S. at 580-81; see also Moore, *supra* note 76, at 99-100.

[FN356]. *Aguillard v. Treen*, 634 F. Supp. 426, 429 (E.D. La. 1985). Actually, the court first held the law violated the Louisiana Constitution because the legislature did not have authority over the school system - the Board of Elementary and Secondary Education held that authority. *Id.* at 427 n.2. But when that issue was appealed, the circuit court certified the state constitution question to the Louisiana Supreme Court, which held the law did not violate its state constitution. See *id.* Upon receiving that decision, the appellate court remanded the case to the district court to decide the issue under the federal constitution. See *id.*

[FN357]. *Aguillard v. Edwards*, 765 F.2d 1251, 1253, 1257 (5th Cir. 1985).

[FN358]. See *id.* at 1257.

[FN359]. See *Aguillard v. Edwards*, 778 F.2d 225, 225 (5th Cir. 1985); see also Moore, *supra* note 76, at 101.

[FN360]. See *Edwards v. Aguillard*, 482 U.S. 578 at 580-82. Moore, *supra* note 76, at 101. The federal court had ruled that a state law was unconstitutional. See *id.* The Supreme Court, then, had jurisdiction over the matter. *Id.*

[FN361]. See *Edwards v. Aguillard*, 482 U.S. at 597, 610.

[FN362]. See Moore, *supra* note 76, at 101.

[FN363]. *Id.*

[FN364]. *Id.* at 101-02.

[FN365]. See *id.* at 102.

[FN366]. *Id.* at 101.

[FN367]. *Edwards v. Aguillard*, 482 U.S. at 584. The issue focused solely on children in elementary and secondary schools. *Id.* at 581 n.2. In 1981 the Court had concluded that

state-supported colleges' offering of religion and theology classes did not conflict with the First Amendment due to the voluntary nature of enrollment and course selection. See *Widmar v. Vincent*, 454 U.S. 263, 271 (1981).

[FN368]. *Edwards v. Aguillard*, 482 U.S. at 594-95.

[FN369]. See *id.* at 595-96. The Court pointed out that none of the persons whose affidavits had been offered had participated in the drafting or passing of the law. *Id.* And ample legislative hearings showed the drafters intent to advance a religious doctrine. See *id.* at 591, 595-96.

[FN370]. See *infra* notes 184-89 and accompanying text.

[FN371]. See *Edwards v. Aguillard*, 482 U.S. at 586.

[FN372]. *Id.*

[FN373]. *Id.* at 586 n.6 (discussing the appellate court's opinion). The Court agreed with the lower court's view that this restriction, in essence, was intended simply to counter evolution whenever it was taught - not to educate on varying theories. *Id.* at 589.

[FN374]. *Id.* at 588-89.

[FN375]. See *id.* at 587.

[FN376]. *Id.* at 597 (Powell, J., concurring). Justice White also concurred in the judgment, but he wrote separately to state he would accept the district court's view of the statute; noting the Court typically deferred to district courts' views of state statutes. *Id.* at 608-09 (White, J., concurring).

[FN377]. See *Edwards v. Aguillard*, 482 U.S. at 597 (Powell, J., concurring).

[FN378]. *Id.* at 603-04. The essential components behind the religious purpose focus on “sudden creation from nothing” (creation *ex nihilo*), the Genesis flood, and the “young” age of the Earth being six or ten thousand years old versus millions of years old. *Id.* at 603 n.4 (quoting *McLean*, 529 F. Supp. at 1265 n.19) (internal quotation marks omitted).

[FN379]. *Id.* at 605.

[FN380]. *Id.* (quoting *Harris v. McRae*, 448 U.S. 297, 319 (1980)) (internal quotation marks omitted). Justice Powell even suggested that to truly understand the nation's history, an understanding of the role of religion in that history may well be necessary. *Id.* at 606-07. But the purpose behind such instruction would be to understand the history of America and not to advance any of the religious beliefs that were a part of the country's founding or development. *Id.* And he recognized that teaching guides suggested “that

education as to the nature of various religious beliefs could be integrated into a secondary school curriculum in a manner consistent with the Constitution.” Id. at 607 n.7.

[FN381]. See id. at 605.

[FN382]. See id. at 608.

[FN383]. See *Edwards v. Aguillard*, 482 U.S. at 606-08 (Powell, J., concurring).

[FN384]. Id. at 610 (Scalia, J., dissenting).

[FN385]. Id.

[FN386]. Id. at 613 (Scalia, J., dissenting).

[FN387]. Id. at 614.

[FN388]. See id. at 615.

[FN389]. *Edwards v. Aguillard*, 482 U.S. at 615 (Scalia, A., dissenting).

[FN390]. Id.

[FN391]. See id.

[FN392]. See id. at 616.

[FN393]. Id.

[FN394]. Id. at 617.

[FN395]. *Edwards v. Aguillard*, 482 U.S. at 617 (Scalia, A., dissenting).

[FN396]. Id.

[FN397]. See id. at 596-97 (majority opinion).

[FN398]. Id. at 594 (majority opinion).

[FN399]. See *infra* notes 400-30 and accompanying text.

[FN400]. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 975 F. Supp. 819, 821 (E.D. La. 1997), *aff'd*, 185 F.3d 337 (5th Cir. 1999).

[FN401]. Id.

[FN402]. *Id.*

[FN403]. *Id.* at 821.

[FN404]. See *id.* at 828-29.

[FN405]. See *id.* at 829.

[FN406]. Freiler, 975 F. Supp. at 828.

[FN407]. *Id.* at 830.

[FN408]. *Id.* at 829-30.

[FN409]. *Id.* at 830 (citing *Sch. Distr. of Abington Twp., Pennsylvania*, 374 U.S. at 226).

[FN410]. *Webster v. New Lenox Sch. Dist.*, 917 F.2d 1004, 1005 (7th Cir. 1990).

[FN411]. *Id.*

[FN412]. *Id.* at 1007.

[FN413]. *Id.* at 1008.

[FN414]. See *LeVake v. Ind. Sch. Dist. #656*, 625 N.W.2d 502, 505-06 (Minn. Ct. App. 2001).

[FN415]. *Id.* (quoting Lavake's proposal regarding how to teach evolution) (omitted emphasis)

[FN416]. *Id.* at 506.

[FN417]. *Id.*

[FN418]. *Id.* at 510.

[FN419]. *Id.* at 507-08.

[FN420]. *LeVake*, 625 N.W.2d at 508-09.

[FN421]. *Id.* at 509.

[FN422]. *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286, 1292 (N.D. Ga. 2005) vacated, 449 F.3d 1320 (11th Cir. 2006) (remanding for additional proceedings including gathering new evidence and establishing factual findings).

[FN423]. Id.

[FN424]. Id at 1297.

[FN425]. Id.

[FN426]. Id. at 1303.

[FN427]. Id.

[FN428]. Selman, 390 F. Supp. 2d at 1312.

[FN429]. Id. at 1306.

[FN430]. Id. at 1306.

[FN431]. Id. at 1306-07.

[FN432]. See id. at 1307.

[FN433]. See Kitzmiller, 400 F. Supp. 2d at 708.

[FN434]. Id. The statement proclaimed as follows:

The Pennsylvania Academic Standards require students to learn about Darwin's Theory of Evolution and eventually to take a standardized test of which evolution is a part.

Because Darwin's Theory is a theory, it continues to be tested as new evidence is discovered. The Theory is not a fact. Gaps in the Theory exist for which there is no evidence. A theory is defined as a well-tested explanation that unifies a broad range of observations.

Intelligent Design is an explanation of the origin of life that differs from Darwin's view. The reference book, *Of Pandas and People*, is available for students who might be interested in gaining an understanding of what Intelligent Design actually involves.

With respect to any theory, students are encouraged to keep an open mind. The school leaves the discussion of the Origins of Life to individual students and their families. As a Standards-driven district, class instruction focuses upon preparing students to achieve proficiency on Standards-based assessments.

Id. at 708-09.

[FN435]. Id. at 709.

[FN436]. Id. at 714. The court noted that using both tests resulted in a much longer review, but it opined the “‘belt and suspenders' approach” was still preferred. Id. at 714 n.4.

[FN437]. Id. at 714 (third brackets added).

[FN438]. *Id.* at 714-15.

[FN439]. See *Kitzmiller*, 400 F. Supp. 2d at 715.

[FN440]. *Id.* at 716.

[FN441]. *Id.*

[FN442]. *Id.* at 718.

[FN443]. *Id.*

[FN444]. *Id.*

[FN445]. See *Kitzmiller*, 400 F. Supp. 2d at 722.

[FN446]. *Id.* at 716, 719.

[FN447]. *Id.* at 724-31. But the court did not stop with addressing the constitutional questions. The court proceeded to analyze the evidence that had been presented and determine whether it considered intelligent design to be a science. See *id.* at 735. The court stated it was in a better position than any other court because it had heard “twenty-one days and ... countless hours of detailed expert witness presentations ...” *Id.* And by considering intelligent design's inherent reliance on some supernatural being, the court concluded that “[intelligent design] is not a science.” *Id.* The court also stated, as a reason for determining intelligent design was not a science, that intelligent' design's position regarding “evolution ha[d] been refuted by the scientific community.” *Id.* Of course, what the court did not do was note that the “scientific community” to which it referred was made up of those who agree with the theory of evolution, who naturally would refute the concept of intelligent design.

[FN448]. *Id.* at 746.

[FN449]. *Id.*

[FN450]. *Id.* at 747. Much of the court's reasoning for so holding was due to varying statements by members of the school board and community. See *id.* at 748. The superintendent had commented that the board president's primary issue was “creationism.” *Id.*

[FN451]. See *Kitzmiller*, 400 F. Supp. 2d at 747, 756-57, 759.

[FN452]. *Id.* at 763.

[FN453]. *Id.*

[FN454]. *Id.* at 763-64 (quoting *Tex. Monthly, Inc.*, 489 U.S. at 9).

[FN455]. *Id.* at 764.

[FN456]. *Id.* at 765.

[FN457]. *Kitzmiller*, 400 F. Supp. 2d at 728, 725, 763-64.

[FN458]. The effect of the historical debate is receiving more attention and should be examined more closely. See, e.g., Kristi L. Bowman, *Seeing Government Purpose Through the Objective Observer's Eyes: The Evolution-Intelligent Design Debates*, 29 *Harv. J.L. & Pub. Pol'y* 417 (2006). The debate centers on the tests used to analyze the constitutional questions. See *id.* But what has developed from these tests is a jumble of ways to view what has occurred.

The most recent language involves the following test: “whether an objective observer, acquainted with the text, legislative history, and implementation of the statute, would perceive it as a state endorsement of [religion].” *Santa Fe Indep. Sch. Dist.*, 530 U.S. at 308. However, to view the issue from only the viewpoint of someone who is aware of the religious debate involved necessarily presupposes that religion is too involved.

Under the tests used by the courts, once something creates controversy, can it ever pass the test of “an informed, reasonable observer” ? No. That informed person - by definition - will know the controversy that surrounds the issue. And once anyone knows the controversy, courts tend to hold that the informed person will decide anything that could promote religion will be deemed to promote religion. In other words, no way exists to advance from where we stand currently.

The unfortunate outcome of this jumble of tests and application hinders our judicial system from moving forward and from truly objectively looking at the issues raised. Just because fundamentalist religious groups originally made the cry to teach creationism in public schools, we should not damn the idea entirely. After all, religious organizations were the initial charitable organizations in the country. Yet we continue to encourage charity, even when it does not involve religious organizations. We even give people deductions on their taxes for being charitable, whether motivated by religious drives or simply a desire to help others. We should treat intelligent design - and other concepts that could be related, for some people, to creation similarly.

[FN459]. See *supra* notes 22-23 and accompanying text.

[FN460]. See *The American Heritage Dictionary of the English Language*, *supra* note 59, at 532, available at <http://www.bartleby.com/61/35/D0323500.html> (last visited Sept. 12, 2007).

[FN461]. See *supra* notes 30-31 and accompanying text.

[FN462]. See *supra* notes 55-58 and accompanying text.

[FN463]. See supra note 34 and accompanying text.

[FN464]. *Epperson v. Arkansas*, 393 U.S. at 103-04.

[FN465]. See *Lemon*, 403 U.S. at 612-13 (internal quotation marks omitted) (citations omitted).

[FN466]. See Merriam-Webster's Collegiate Dictionary 1296 (11th ed. 2003) (defining "theology").

[FN467]. See *County of Allegheny*, 492 U.S. at 593.

[FN468]. See *Santa Fe Indep. Sch. Dist.*, 530 U.S. at 309-10.

[FN469]. *Id.*

[FN470]. Granted, most of the jurisprudence is accordingly limited. However, challenges have been brought arguing showing favoritism toward other religions such as Judaism and Islam. See, e.g., *Skoros v. City of New York*, 437 F.3d 1, 33 (2d Cir. 2006) (holding holiday display of menorah and star and crescent did not violate First Amendment because Christmas was represented, although with secular symbols, in an attempt to promote understanding of cultural diversity).

[FN471]. See, e.g., *Kitzmiller*, 400 F. Supp. 2d at 763-64.

[FN472]. When a public school system includes the subject of evolution in its curriculum, if it were to limit the discussion and lesson to only microevolution, no issue becomes apparent. However, when macroevolution becomes part of the lesson or any concept that identifies life's origin, ideologies become involved. Information that addresses concepts involving random mutations and occurrences, such as the Big Bang theory, raises issues involving religion, even when what is traditionally considered to be religious is not mentioned.

[FN473]. This is not to say that evolution is religion. My argument is that evolution, as used to explain life's origin based on random events, represents the theistic view that no god exists. Evolution, though, is not in itself theology; it is simply the answer to "how did life begin?" for a particular theistic view.

[FN474]. The expert in *Kitzmiller* used Thomas Aquinas's 13th century syllogism to argue that intelligent design represents creation: "Wherever complex design exists, there must have been a designer; nature is complex; therefore nature must have an intelligent designer." *Kitzmiller*, 400 F. Supp. 2d at 718 (citation omitted).

[FN475]. See supra notes 142-43 and accompanying text.

[FN476]. Syllogisms have long been used to show and better explain logic of arguments. Of course, the Kitzmiller expert also testified by adding an additional statement to his offered syllogism as if a follow-up conclusion were automatic: everyone understands this “designer” to be God. Kitzmiller, 400 F. Supp. 2d at 718 (citation omitted). The author disagrees with the add-on phrase used by the Kitzmiller expert but certainly agrees with the logical benefit syllogistic arguments provide.

[FN477]. See supra notes 36-40 and accompanying text.

[FN478]. The Kitzmiller court extensively reviewed the question of whether intelligent design was science. See Kitzmiller, 400 F. Supp. 2d at 735. Of course, because it limited science to only natural causes or phenomena, intelligent design could not be considered science. *Id.* at 736, 738. But the court failed to address when a scientific argument or explanation might cross the line - or at the very least heavily blur the line - regarding religion. And in Kitzmiller, when the court stated that acting with the purpose of advancing religion would violate the Establishment Clause, so too does advancing the dogma that no supernatural being exists.

Actually, in my view, the Kitzmiller court missed the question. The issue in Kitzmiller should not have been whether intelligent design is a science. The proper question to ask was whether evolution, at its fundamental level, promotes an ideology regarding religion. It does, and because of that, governmental establishment of teaching only evolution demonstrates a preferred treatment of religious ideas.

[FN479]. See LeVake, 625 N.W.2d at 508.

[FN480]. See discussion supra Part II.

[FN481]. Selman, 390 F. Supp. 2d at 1288.

[FN482]. *Edwards v. Aguillard*, 482 U.S. at 580-81.

[FN483]. See *id.* at 596-97.

[FN484]. *Epperson v. Arkansas*, 393 U.S. at 107.

[FN485]. Justice Powell, in his concurring opinion in *Edwards* noted the multireligious nature of the country. *Edwards v. Aguillard*, 482 U.S. at 608 n.6 (Powell, J., concurring). “This fact, perhaps more than anything one could write, demonstrates the wisdom of including the Establishment Clause in the First Amendment.” *Id.*

[FN486]. See Skoros, 437 F.3d at 3.

[FN487]. Even the Supreme Court has opened this door. In a footnote, while addressing the purpose of the Louisiana legislation, the Court stated, “While the belief in the instantaneous creation of humankind by a supernatural creator may require the rejection of every aspect of the theory of evolution, an individual instead may choose to accept

some or all of this scientific theory as compatible with his or her spiritual outlook.”
Edwards v. Aguillard, 482 U.S. at 591 n.11 (citing oral argument transcripts).

[FN488]. Although intelligent design should not be taught to the exclusion of other theories, in my personal view, teaching intelligent design along with evolution is a better answer than changing nothing to get past the courts' terrible trap of thinking anything other than evolution involves the Christian God. The Court pointed out in Epperson that the motivation behind the Arkansas law was “to suppress the teaching of a theory which, it was thought, denied the divine creation of man” and therefore protected particular religions and not others. Epperson v. Arkansas, 393 U.S. at 107-09. But intelligent design does not support one particular religion. See supra note 133 and accompanying text. Intelligent design for some, after all, denies the existence of the Christian God. Or it does not. It depends on the holder of the view, for intelligent design need not name the power, designer or intelligence that sparked creation.

Interestingly in Kitzmiller, the court accepted an expert's testimony to show that since the 13th century, intelligent design has been considered a theory of the origin of life; yet, in the same opinion, the court stated that intelligent design had sprung out of creationist movements of the twentieth century. Kitzmiller, 400 F. Supp. 2d at 718.

[FN489]. Edwards v. Aguillard, 482 U.S. at at 590 (footnote omitted).

[FN490]. See, e.g., Brown, Hindu and Christian Creationism, supra note 156, at 96.