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## KITZMILLER'S ERROR: DEFINING "RELIGION" EXCLUSIVELY RATHER THAN INCLUSIVELY

*John H. Calvert*<sup>†</sup>

*"For it is by discourse that men associate, and words are imposed according to the apprehension of the vulgar. And therefore the ill and unfit choice of words wonderfully obstructs the understanding. . . . [The] words plainly force and overrule the understanding, and throw all into confusion, and lead men away into numberless empty controversies and idle fancies."*  
(Francis Bacon, 1620)<sup>1</sup>

### ABSTRACT

In *Kitzmiller v. Dover Area School District*,<sup>2</sup> the court held that it was a violation of the Establishment Clause for a public school "to advise students of gaps/problems in Darwin's theory and of other theories of evolution, including, but not limited to intelligent design," because the policy caused the state to endorse "religion." In reaching this conclusion the court did not define "religion" functionally and inclusively as has the Supreme Court "[as] an aspect of human thought and action which profoundly relates the life of man to the world in which he lives."<sup>3</sup> Instead, the *Kitzmiller* court implicitly used a narrow discriminatory or exclusive definition of religion that limits the scope of "religion" to only beliefs in God. The discriminatory definition excludes from "religion" and the burdens of the Establishment Clause non-theistic beliefs that relate life to the world materialistically through matter, rather than mind. If the *Kitzmiller* court had used the inclusive functional definition rather than the exclusive discriminatory definition, its result would have been different.

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1. FRANCIS BACON, THE NEW ORGANON OR TRUE DIRECTIONS CONCERNING THE INTERPRETATION OF NATURE, Part XLIII (1620).

2. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005).

3. *McGowan v. Maryland*, 366 U.S. 420, 461 (1961) (Frankfurter, J., concurring) (joined by Harlan, J.).

## I. INTRODUCTION

In *Everson v. Board of Education*, a 1947 case involving state subsidized transportation of students to parochial schools, Justice Jackson noted in dissent that:

Our public school . . . is organized on the premise that secular education can be isolated from all religious teaching so that the school can inculcate all needed temporal knowledge and also maintain a strict and lofty neutrality as to religion. The assumption is that after the individual has been instructed in worldly wisdom he will be better fitted to choose his religion. Whether such a disjunction is possible, and if possible whether it is wise, are questions I need not try to answer.<sup>4</sup>

The disjunction seems possible when the “temporal knowledge” is confined to subjects like reading, writing, and arithmetic. They are basic to learning, reflect temporal knowledge, and are religiously neutral. But what about education that seeks to explain the origin of the universe, life and its diversity, and the origin of man—“origins science education”? Do explanations about these matters amount to temporal knowledge or historical narratives or opinions that provide the foundation for religions? Furthermore, can the subject be taught so that public education “maintain[s] a strict and lofty neutrality as to religion?” If it is to be taught, then how should it be taught to confine the teaching to temporal knowledge informed with a lofty neutrality?

Scientific explanations of origins are much different than those of most operational sciences because they amount to historical narratives or opinions about a long series of unobserved remote events derived from inferences from a limited and constantly changing mix of data and a variety of many controversial assumptions. Because the narratives fill gaps in the record with assumption, inference, and imagination, they reduce to matters of opinion rather than statements of fact or intersubjectively accessible knowledge. The religious bias of the author of a textbook, school administrator, or teacher is also likely to subtly favor one explanation over another. If only one opinion is allowed or favored, then the “teaching” of origins science becomes indoctrination in an orthodoxy, not education about the state of our scientific knowledge. This would seem legally problematic, as the Supreme Court in an oft-repeated dictum has stated that “[i]f there is any fixed star in our constitutional constellation, it is that no

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4. *Everson v. Bd. of Educ.*, 330 U.S. 1, 23-24 (1947) (Jackson, J., dissenting) (emphasis added) (majority holding that a state may pay the bus fares of all students, including those who attend parochial schools).

official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion . . . .”<sup>5</sup>

Origins narratives are not confined to a temporal or non-religious sphere. In fact, they are at the core of the religious sphere as they provide an answer to the ultimate question: *Where do we come from?* It is one of “ultimate concern” because what we believe about “from whence we come” “is inseparable” from what we believe about “life’s goal,” or where we should go.<sup>6</sup> If we believe life is a creation made for a purpose, then where we go becomes a function of what we believe is the Creator’s purpose for life. However, if one believes that life is just an occurrence that has arisen from materials of the past, then one may decide to find the purpose of life solely from human reason rather than the wisdom of scripture. One narrative provides the foundation for theistic religion while the other provides for non-theistic religion. Is it constitutional for the state to select one of these origins narratives to be taught exclusively as orthodoxy and thereby favor one kind of religion over another?

Public education could avoid the problem by excluding from the curriculum all discussion of origins. However, the study of origins is a legitimate scientific subject of study. The problem is that the origins narratives provided in science textbooks are uniformly materialistic, as they explain that life arises only from natural or material causes, an explanation that provides the foundation for non-theistic beliefs.<sup>7</sup>

A variety of attempts have been made to deal with the issue. The first was to enact legislation that would ban the teaching of evolution, the materialistic account of origins. This was found to be problematic in *Epperson v. Arkansas* because the banning of one of multiple origins accounts set up the favored account as an orthodoxy.<sup>8</sup> If Arkansas had banned all discussions of origins, then public education would have limited its curriculum to temporal knowledge as contemplated by Justice Jackson. By excluding only one of multiple accounts of origins, its actions were not religiously neutral.

The response to *Epperson* was to revise the statute to require the teaching of a biblical account of origins whenever the materialistic account

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5. *W. Va. Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943).

6. “If it is true that the question of the origin (whence do we come?) is inseparable from that of life’s goal (where do we go?), then the question of creation also concerns that of its purpose or end.” Christopher Cardinal Schönborn’s First Catechetical Lecture for 2005/2006: *Creation and Evolution: To the Debate As It Stands* (Oct. 2, 2005, St. Stephan’s Cathedral, Vienna), from unofficial transcript, available at <http://stephanscom.at/edw/katechesen/0/articles/2005/10/04/a9281>.

7. See *infra* Parts VI.A-B.

8. *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968).

of origins was brought up in a science class. In *Edwards v. Aguillard*,<sup>9</sup> this attempt to achieve religious neutrality was viewed as not neutral because it effectively required the teaching of a particular religious orthodoxy contained in the Bible as a condition to a presumably objective scientific teaching of origins.

In 2005, a local school board in Dover, Pennsylvania suggested an alternative: limit the discussion of origins in a science class to the historical narratives developed by science, but teach those narratives objectively so that students would not be indoctrinated in the materialistic orthodoxy. Show the students the narratives, but show them the scientific gaps or problems in the narratives, as well as an alternative teleological view of origins called "Intelligent Design." This formula would exclude all scriptural accounts of origins and keep the discussion focused on an accurate assessment of the state of our scientific knowledge regarding origins. Under such circumstances, the goal for the delivery of "temporal knowledge" that is religiously neutral might be achieved.

In *Kitzmiller v. Dover Area School District*, Judge Jones held this attempt at objectivity to be a violation of the Establishment Clause.<sup>10</sup> He found that natural cause explanations of origins are science, while supernatural cause explanations are religion. Hence, a policy that would introduce students to the supernatural and challenge the natural would endorse religion rather than advance science. Thus, to ensure a "secular" public school curriculum, implementation of the policy was enjoined.

In reaching this conclusion the court did not define "religion" functionally as has the Supreme Court, the Third Circuit, and other federal courts. Generally, a functional definition of "religion" includes beliefs regarding matters of "ultimate concern" that function in the lives of their possessors in the same manner as traditional theistic beliefs function in the lives of theists. A functional definition is inclusive rather than exclusive. It includes both theistic and non-theistic belief systems such as Atheism and "Secular" Humanism.<sup>11</sup>

A standard and commonly used dictionary lists a functional definition first: "Religion . . . is a set of beliefs concerning the cause, nature and

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9. *Edwards v. Aguillard*, 482 U.S. 578, 601-04 (1987) (Powell, J., concurring) (joined by O'Connor, J.) (finding that the tenets of "creation science parallel the Genesis story of creation" in the Bible).

10. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005); *see infra* Parts VII-VIII.

11. Quotation marks are placed around "Secular" in "Secular" Humanism, the label for a particular non-theistic religion. They are necessary because secular means not religious. Hence the descriptor is an oxymoron. The first Manifesto that proclaimed the religion labeled it "Religious Humanism." *See infra* Parts III.A, III.B.3.c.xiv.

purpose of [life].”<sup>12</sup> This definition is consistent with the observation of the Supreme Court in *McGowan v. Maryland*: “By its nature, religion – in the comprehensive sense in which the Constitution uses that word – is an aspect of human thought and action which profoundly relates the life of man to the world in which he lives.”<sup>13</sup>

This article argues that Judge Jones’ use of the narrow exclusive definition serves to effect religious discrimination and offend principles of Establishment Clause neutrality. Its application causes the state to prefer non-theists over theists and materialists over creationists by establishing natural or material causes as the orthodox answer to the ultimate religious question. When viewed in the light of the prevailing functional definition of religion, the ID Policy is not only valid, but also apparently necessary, if public education is to engage students in a discussion of the origin of life and its diversity and limit its curriculum to the provision of temporal knowledge that is religiously neutral.

## II. DEFINITIONS KEY TO THE MEANING OF RELIGION

Francis Bacon, the seventeenth-century originator of the scientific method, was concerned with precision in explanation. He believed the popular and unfit use of words often “*obstructs the understanding*” and “*throw[s] all into confusion, and lead[s] men away into numberless empty controversies and idle fancies.*”<sup>14</sup> That appears true today as a popular definition of religion limits “religion” to only theistic beliefs. That usage creates confusion in the application of laws that seek to regulate social relationships among citizens to achieve “secular” ends.<sup>15</sup> An improper definition of religion will also result in an incorrect definition of “secular” as the definition of that word depends entirely on the definition of “religion.” If the use of a term does not fit the purpose of a particular law, then the usage may actually conflict with the law itself.

The confusion noted by Bacon over the vulgar use of words also applies to other words and phrases important to the definition of religion, including *Material or Natural and Intelligent Causes*, *Materialism/Naturalism*, *Evolution and Intelligent Design*, *Secular*, *Science*, and *Methodological Naturalism or Scientific Materialism*. This article will attempt to clarify the meaning of these concepts without defining them with particularity.

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12. RANDOM HOUSE WEBSTER’S UNABRIDGED DICTIONARY (1999) (defining “religion” as “a set of beliefs concerning the *cause, nature, and purpose* of the universe” (emphasis added)). This definition would include a set of beliefs concerning the cause, nature, and purpose of life.

13. *McGowan v. Maryland*, 366 U.S. 420, 461 (1961) (Frankfurter, J., concurring) (joined by Harlan, J.).

14. BACON, *supra* note 1, Part XLIII.

15. T. Jeremy Gunn, *The Complexity of Religion and the Definition of “Religion” in International Law*, 16 HARV. HUM. RTS. J. 189, 195 (2003).

Rather, the discussion will identify concepts included or excluded from their meanings that are important to public education about origins.

*A. Material or Natural and Intelligent Causes*

The phrase “natural cause” is key to *Kitzmiller*. The court concluded that intelligent design is religion because it does not use a “natural cause” to explain the origin of life and its diversity. However, like the other important terms found in the opinion, the court did not define “natural cause.” Instead, it described natural cause in terms of what the concept excludes: any intelligent cause, whether supernatural or natural.<sup>16</sup>

To understand both causes, one must identify the attributes of each and those that inhere in one but not the other. Hence, to understand “natural causation,” one must have some comprehension of the nature of the excluded intelligent cause.

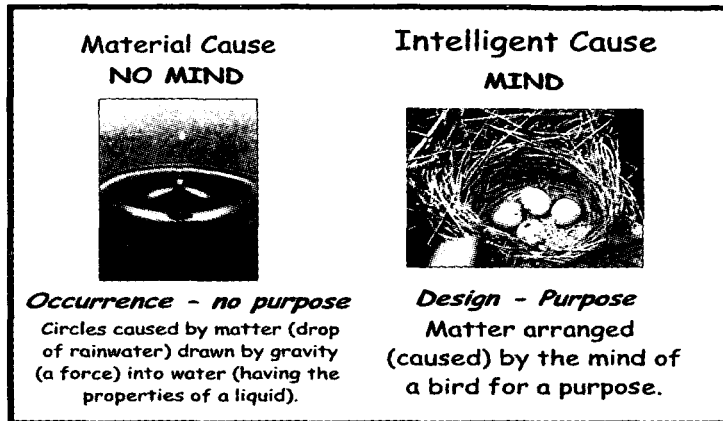
A cause is something that brings about an effect. A natural cause is a cause that produces an effect attributable to the unguided interactions of matter, energy, and the forces<sup>17</sup> (*i.e.*, the gravitational, electromagnetic, and strong and weak nuclear forces) that operate per laws such as the laws of motion and thermodynamics. The photo on the left in Figure 1<sup>18</sup> shows an effect or “*occurrence*” consisting of a perfect circular ripple on the surface of a placid pond of water. It was *caused* by the interactions of matter, consisting of a drop of rain water being pulled by the gravitational force into other matter having the properties of a liquid at a certain speed or level of energy. Thus each of the elements of the pattern in the pond are related by and *dependent on* physical and chemical necessity. Because natural causes reduce to matter—the interactions of atoms and other elemental particles—they are often referred to as material causes.

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16. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 718-19 (M.D. Pa. 2005). According to the court, an inference to a natural alien intelligence is not a “serious alternative.” Hence, an inference to an intelligent cause for life necessarily implies a supernatural rather than natural cause.

17. This is consistent with science standards adopted by the Kansas State Board of Education on February 13, 2007, which restricted explanations to natural causes and scientific knowledge to the “physical world in terms of matter, energy and the forces.” Kansas Science Education Standards, adopted Feb. 14, 2007, rev. Aug. 2007, *Introduction* at xii and *Standard 7 History and Nature of Science, Benchmark 2, Indicator 1*, at 106 (Kan. St. Dept. of Educ. 2007), <http://www.ksde.org/Default.aspx?tabid=144>.

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**Figure 1: Contrasting Material and Intelligent Causes**

An intelligent cause is a cause that produces an effect attributable to a mind or some form of intelligence that manipulates matter, energy, and the forces for a purpose. Intelligent causes produce designs rather than occurrences.

Although we do not fully comprehend intelligence, it is ubiquitous to the natural world as it inheres in humans, birds, and animals. Scientists are looking for alien intelligence in outer space and are finding a kind of internal intelligence within cellular systems. An intelligent system like a mind has the capacity to “perceive” and “know” the present and store that knowledge in memory as experience. Minds then process experiences or “learning” to generate “foreknowledge” or predictions about the future. Based on those predictions, intelligent causes then “choose” to alter the future for a particular purpose. Intelligence then generates outputs that manipulate material causes—matter, energy, and the forces—so that the chosen goal or purpose is achieved. The output or specific arrangement of matter, such as a machine or a writing, often manifests the purpose born in the mind. By observing the manifestations of the output, one may infer the prior existence and activity of the intelligent cause.

The photo on the right in Figure 1 shows the intelligently caused nest of a bird consisting of thousands of tightly integrated sticks and daubs of mud. Each of the elements of the nest, the sticks and mud, are not related by physical necessity in that no series of material causes require that they reside in their circular pattern perched high above the ground in the fork of a tree. However, they are related in space to a future purpose born in the mind of the bird. The purpose of the nest is to hold eggs. The key difference between the nest of the bird and the ripple in the water is that the elements of the nest are related to a future purpose while the elements that comprise the circle in the water are not. The elements comprising the ripple are related in space by physical and chemical necessity while the sticks and daubs of mud are related to a thought.



Lacking a mind, natural causes lack the capacity to integrate events for a future purpose. In fact, material causes cannot know or be aware of the past, present, or future. Hence, they are by themselves incapable of forming a pattern that has a future purpose. Because of this difference, an observation that the elements of a pattern are related to a purpose triggers an inference to an intelligent cause.

Do the eggs in the nest have a future purpose or function? It would appear that they do, for they turn into a bird. This raises the core question concerning origins. Although the eggs appear to be designs and not occurrences, can they be explained only by material or natural causes? Can natural or material causes explain the mind of the bird itself, which also has a function and purpose? Natural or material causes appear to adequately explain most physical systems like rocks, rivers, wind, rain, and snow. However, they are challenged to explain themselves or life because the bio-systems that comprise life are all functional or purposeful.

Socrates and the Platonists divided causes into material causes and intelligent causes.<sup>19</sup> Aristotle did the same, except he divided material causes into three categories, consisting of a material cause (the matter that constitutes an object), the formal cause (the form of the object), and the efficient cause (the movement or force that produces the form). These three causes reduce to the interactions of matter, energy, and the forces. Aristotle called his intelligent cause the “final cause” (telos or end-related cause), the cause that gives an object its purpose. To know an object, one must know its purpose or function.<sup>20</sup>

As explained in this article, natural and intelligent causes have equal but opposite religious implications.<sup>21</sup> An inference to an intelligent cause for the origin of life and the eggs in the nest implies an intelligence active in the creation of life. It implies that life was made for a purpose. Belief in a creator is the core of traditional theistic beliefs, while belief in natural causes is the heart of Atheism, “Secular” Humanism and other religions not dependent on a God that intervenes in the natural world.

### *B. Materialism/Naturalism*

Materialism is “a doctrine, theory, or principle according to which physical matter is the only reality and the reality through which all being and processes and phenomena can be explained.”<sup>22</sup> In short, materialism argues

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19. DAVID SEDLEY, CREATIONISM AND ITS CRITICS IN ANTIQUITY 114 (2007).

20. *Id.* at 174.

21. See *infra* Part III.A; see also Jesse Preston and Nicholas Epley, *Science and God: An Automatic Opposition Between Ultimate Explanations*, 45 J. EXPERIMENTAL SOC. PSYCHOL. 238 (2009) (research finding that scientific explanations of origins subconsciously reduce belief in God as the strength of the explanation increases).

22. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED 1392 (2003).

that only material causes have operated in the natural world, not any intelligent cause. A materialist rules out purpose—Aristotle's "final cause." This is because purpose is a concept necessarily tied to the activity of a mind or intelligence. For a materialist, mind does not intervene in the natural world. Minds that do exist have simply arisen from matter, not mind.

Materialism is synonymous with Naturalism. Naturalism is a "doctrine that cause-and-effect laws (as of physics and chemistry) are adequate to account for all phenomena and that teleological conceptions of nature are invalid."<sup>23</sup> Teleology is the "philosophical study of evidences of design in nature."<sup>24</sup> Because teleology includes non-physical explanations, it is deemed by some to be "metaphysical." Thus, Naturalism, like materialism, excludes intelligence as a cause of natural phenomena as a matter of doctrine. Hence, natural and material causes and naturalism and materialism for purposes of this article are synonymous.

As discussed later,<sup>25</sup> materialism dates back at least as far as Democritus, a Greek philosopher who argued that all natural phenomena may be reduced to atoms and voids. Epicurus and Lucretius subsequently developed that idea into a functional religion called Epicureanism. The Epicureans argued that because matter rather than God explains life, it should be lived per human reason. Epicureanism is the precursor to modern "Secular" Humanism, a functional non-theistic religion founded on the same principles.

### C. *Evolution and Intelligent Design (ID)*<sup>26</sup>

Scientific theories regarding the evolution of life consist of cosmological, chemical, and biological evolution. Cosmological evolution is the historical narrative that accounts for the current structure of the universe. Chemical evolution seeks to explain the chemical origin of life from a series of interactions of matter, energy, and the forces—natural or material causes. Biological evolution seeks to explain the origin of the diversity of life while assuming chemical evolution occurred, using only natural or material causes, driven by random variation and natural selection.

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23. *Id.* at 1507.

24. *Id.* at 2350.

25. *See infra* Part III.A.

26. A recent comprehensive discussion of ID may be found in WILLIAM A. DEMBSKI & JONATHAN WELLS, *THE DESIGN OF LIFE: DISCOVERING SIGNS OF INTELLIGENCE IN BIOLOGICAL SYSTEMS* (2008). For three short articles that cover Intelligent Design in more detail, see John H. Calvert, *Intelligent Design Is Good Science*, in *ISSUES ON TRIAL: EDUCATION* 137 (Robert Winters ed., 2008); William S. Harris & John H. Calvert, *Intelligent Design: The Scientific Alternative to Evolution*, *THE NAT'L CATH. BIOETHICS Q.* 531, 542-49 (2003); John H. Calvert, *Are We Designs or Occurrences? Should Science and Government Prejudge the Question*, *WHISTLEBLOWER*, Aug. 2005, at 24.

ID theorists infer an intelligent cause from various features of the natural world that clearly exhibit function or purpose such as eyes, minds, messages in DNA, and the universe's fine tuning for life. They argue that their purpose is best explained by an intelligence rather than a series of material or natural causes. However, evolutionary biologists disagree, claiming that the apparent design of the eye is merely an illusion explained by natural causes.<sup>27</sup>

### 1. The Historical Character of Origins Science

An appreciation that the study of origins is a historical science is critical to an understanding of evolution, intelligent design, methodological naturalism, origins science, origins science education, and the error of the court in *Kitzmiller*. The study of origins seeks to explain the cause of a series of singular, very remote, unobserved, and unobservable events not replicable in the laboratory or subject to experimental confirmation. This was explained by the renowned evolutionary biologist Ernst Mayer:

Darwin introduced historicity into science. Evolutionary biology, in contrast with physics and chemistry, is a historical science – the evolutionist attempts to explain events and processes that have already taken place. *Laws and experiments are inappropriate techniques for the explication of such events and processes. Instead one constructs a historical narrative, consisting of a tentative reconstruction of the particular scenario that led to the events one is trying to explain.*<sup>28</sup>

Historical hypotheses not susceptible to experimental confirmation are tested through a form of abductive reasoning that produces only probabilistic explanations (*i.e.*, more likely than not, beyond a reasonable doubt, etc.). As explained by Carol Cleland, a philosopher of science, historical sciences seek an inference to the “best” of competing explanations.<sup>29</sup> Critical to the method is the postulation of multiple competing hypotheses and the objective search for data or clues that will both rule in one hypothesis and also rule out the competitors. Cleland concludes that a failure to rule out or to seek to rule out a competing

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27. See generally RICHARD DAWKINS, *THE BLIND WATCHMAKER: WHY THE EVIDENCE OF EVOLUTION REVEALS A UNIVERSE WITHOUT DESIGN* 6, 21 (1996) (including discussions between evolutionary biologists).

28. Ernst Mayr, *Darwin's Influence on Modern Thought*, 238 *SCI. AM.* 78, 80 (July 2000) (emphasis added).

29. See generally Carol Cleland, *Historical Science, Experimental Science and the Scientific Method*, 29 *GEOLOGY* 987 (2001) (describing the difference between historical and experimental scientific methodology).

historical hypothesis leaves the hypothesis to be tested nothing more than a speculation or a “dreaded just-so story.”<sup>30</sup>

Biologist Kenneth Miller, a key witness in *Kitzmilller*, explains that the historical scientist simply applies “good, old fashioned detective work to the clues that have been left behind” to explain the cause of evolutionary change.<sup>31</sup> Unlike the law of gravity, the evolutionary relationship is a subjective “historical narrative,” not a law. It is based in part on imagination rather than entirely on inter-subjectively accessible knowledge.<sup>32</sup>

## 2. The Explanatory Filter

The method just discussed is used by science to determine whether a pattern or event is due to an intelligent, natural, or accidental cause. What caused a death or fire? Did a writing arise in the mind of its purported author or from the mind of another? Is a rock a rock or an artifact? Do sounds coming from distant galaxies have an intelligent or natural source? Did life arise due to an intelligent or natural cause? The method of analysis used to answer each of these scientific inquiries is described in *The Design Inference*, by William Dembski.<sup>33</sup> Dembski describes the method as an “[e]xplanatory [f]ilter.”<sup>34</sup> The filter analyzes multiple competing hypotheses using three basic inquiries, all of which must be answered correctly for a reasonable inference of design to be filtered out.<sup>35</sup>

*First*, are the elements that comprise a given pattern related by a recognizable function or purpose—an apparent or *prima facie* design that is independent of the function of the elements themselves?<sup>36</sup> If so, then a design hypothesis is implicated, moving to the tests under steps two and three.

30. *Id.* at 990.

31. KENNETH MILLER, *FINDING DARWIN'S GOD* 22-23 (1999).

32. The following reflects an evolutionary explanation for the origin of the eye:

It's easy to *imagine* how a random mutation *might have* produced a patch of light-sensitive cells that helped a primitive creature tell day from night. You can also *imagine* how another mutation *might have* bent this patch of cells into a concave shape that could detect the direction a light or shadow was coming from – helping creatures with the mutation stay clear of predators.

Jeremy Caplan et al., *The Evolution Wars*, *TIME*, Aug. 15, 2005, at 27, *available at* 2005 WLNR 12430761 (emphasis added).

33. WILLIAM A. DEMBSKI, *THE DESIGN INFERENCE: ELIMINATING CHANCE THROUGH SMALL PROBABILITIES* 47 (1998). For a more rigorous discussion of these concepts, see generally WILLIAM A. DEMBSKI, *NO FREE LUNCH: WHY SPECIFIED COMPLEXITY CANNOT BE PURCHASED WITHOUT INTELLIGENCE* 12-13 (2007) [hereinafter DEMBSKI, *NO FREE LUNCH*].

34. DEMBSKI, *NO FREE LUNCH*, *supra* note 33, at 13 (1998).

35. *Cf. id.*

36. *Cf. id.*

*Second*, is the apparently purposeful relationship between the elements of the pattern due to any physical or chemical necessity?<sup>37</sup> If so, then natural or material causes may explain it. For example, snowflakes may look designed, but that inference is not warranted; when combined under certain conditions of temperature and pressure, the properties of water (H<sub>2</sub>O) molecules, self-organize into intricate and beautiful hexagonal lattices. Thus, if the relationship between the elements comprising the pattern is dictated by chemistry and physics, that is, material or natural causes, the design hypothesis fails.

*Third*, if the elements that comprise the pattern are related to a purpose or function and not by any physical or chemical necessity, can the pattern be plausibly explained by chance or a combination of chance and necessity?<sup>38</sup> If not, then an inference to design is reasonable.

### 3. Cosmological Evolution and ID

Democritus (460-370 BC), an early Greek philosopher, argued that all natural phenomena consist of only atoms and voids. Different kinds of atoms self-organize into all the structures seen in the universe, including humans.<sup>39</sup> Socrates (470-399 BC) and Plato (428-348 BC) disagreed because living systems, and particularly the eye, exhibit craftsmanship like that observed in human crafted objects, such as fine furniture.<sup>40</sup> Eyes have clearly observable purposes or ends. Socrates recognized that the *prima facie* design of the eye might be explained by a fortuitous series of random events. However, he rejected the chance alternative because patterns produced by chance do not manifest an end.<sup>41</sup>

Democritus' rejoinder was that chance is adequate to explain the eye because the universe is infinite, and in an infinite universe anything can be expected to happen by chance.<sup>42</sup> Epicurus (341-270 BC), a believer in the materialism of Democritus, argued that the universe was eternal or infinite because it is impossible for something to come from nothing.<sup>43</sup> If that is the case, then the something that exists must be self-existing and eternal. Thomas Aquinas (AD 1225-74) agreed that something cannot come from

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37. *Cf. id.*

38. *Cf. id.*

39. "Given only the assumption that this stock of atoms is infinite and that they vary sufficiently in shape and size, their mechanical combination into complex structures is all that is required to account for the entire phenomenal world." SEDLEY, *supra* note 19, at 135.

40. *Id.* at 81.

41. *Id.* at 85.

42. *Id.* at 155-57.

43. *Id.* at 155-56.

nothing, but he argued that the something that pre-exists is an intelligent entity external to the universe.<sup>44</sup>

Modern cosmology is consistent with the views of Socrates and Aquinas, as it describes a finite and expanding “fine-tuned” universe that had a beginning, rather than an infinite self-existing universe. This explanation is based on observations of a universe that is expanding in all directions and “cosmic microwave background radiation [consisting of] the cooled residue of the primeval fireball that constituted the early universe.”<sup>45</sup> Cosmology suggests that the source of matter is an incredibly dense golf-ball-sized store of energy from which it emerged during the first few milliseconds of the “bang.”<sup>46</sup>

The cause of the “big bang” is unknown. However, a number of cosmologists have concluded that the values that describe the properties of matter, energy, and the forces that emerged from it are such that if any were changed by a slight amount, life on earth would not exist.<sup>47</sup> Furthermore, the values appear arbitrary—they are not chemically or physically dependent—and are not plausibly explained by chance. When this data is run through the explanatory filter, an inference arises that material causes and the universe itself are designed for life.<sup>48</sup> The competing hypothesis, consistent with the views of Epicurus and Democritus, is that an infinite number of universes exist external to this universe, thereby rendering a fortuitous occurrence of this hospitable universe plausible. There appears to be no theoretical possibility of observing those parallel universes.<sup>49</sup>

44. See generally ST. THOMAS AQUINAS, *SUMMA THEOLOGICA* (1265-74).

45. JOSEPH SILK, *THE BIG BANG* 75 (3d ed. 2000).

46. *Id.* at 107. “Enormous energies were achieved at these early moments and resulted in the creation of matter out of almost nothing; that is, out of energy.” *Id.* (emphasis added).

47. Tim Folger, *Science's Alternative to an Intelligent Creator: The Multiverse Theory*, *DISCOVER*, Dec. 10, 2008, <http://discovermagazine.com/2008/dec/10-sciences-alternative-to-an-intelligent-creator>. “Our universe is perfectly tailored for life. That may be the work of God or the result of our universe being one of many.” *Id.*

48. Many scientists, including Francis Collins, the head of the human genome project, find the data imply that the universe is “fine-tuned” for life and therefore is a design. See FRANCIS S. COLLINS, *THE LANGUAGE OF LIFE: A SCIENTIST PRESENTS EVIDENCE FOR BELIEF* 75 (2006); see also GUILLERMO GONZALEZ & JAY RICHARDS, *THE PRIVILEGED PLANET* 195-218 (2004). Martin Rees recognizes the inference, but does not prefer it. See MARTIN REES, *JUST SIX NUMBERS: THE DEEP FORCES THAT SHAPE THE UNIVERSE* 146-48 (2001); see also PAUL DAVIES, *GOD AND THE NEW PHYSICS* 189 (1983) (“The seemingly miraculous concurrence of numerical values that nature has assigned to her fundamental constants must remain the most compelling evidence for an element of cosmic design.”) (emphasis added).

49. Folger, *supra* note 47.

In conclusion, the cause of the big bang and the cause of the matter, energy, and forces, as well as the laws<sup>50</sup> that emerged from it—the material or natural causes themselves—are essentially unknown, although they do appear *prima facie* designed for life.

#### 4. Chemical Evolution and ID

Current science also lacks a coherent explanation for the origin of life on earth via natural or material causes.<sup>51</sup>

The most daunting of many problems<sup>52</sup> for chemical evolution is the development of a theory for the production of the initial genome: the initial messages or genes in DNA needed to get life started. A 2006 paper published in the Proceedings of the National Academy of Science argues that 382 genes are essential to the simplest form of life.<sup>53</sup> An average gene in a simple cell consists of about 900 nucleotide bases (genetic symbols). Genes, like sentences in this article, have specific functions. That appearance of design moves the inquiry to step two of the explanatory filter and the adequacy of natural causes to explain the messages. This requires an understanding of the structure of DNA.

As shown in the diagram in Figure 2,<sup>54</sup> DNA consists of very long linear chains of sugar-phosphate molecules that form the “backbone” of DNA. The backbone has bound to it sequences of four different nucleotide bases called adenine, cytosine, guanine, and thymine. The sequences of these four bases serve the same function as sequences of the dots and dashes used by Samuel Morse to carry messages over telegraph lines. Morse used a binary code that arbitrarily assigned combinations of dots and dashes to the twenty-six letters of the alphabet, punctuation marks, and numbers (“Morse Code”). A sequence of three dots “means” the letter “S.” Similarly, the genetic code is a quaternary code that uses combinations of three of the four bases to specify for one of twenty amino acids or a start code or stop code.

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50. Paul Davies explains that there is no known cause for the laws. See Paul Davies, *Taking Science on Faith*, N.Y. TIMES, Nov. 24, 2007, at A17, available at 2007 WLNR 23500082.

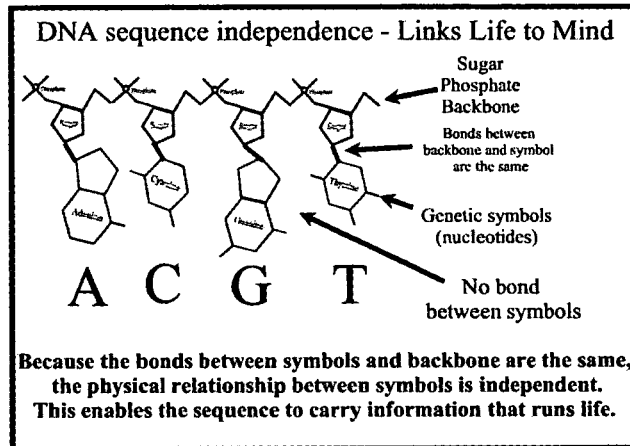
51. See Suzan Mazur, *David Deamer: Line Arbitrary Twixt Life & Non-Life*, <http://www.scoop.co.nz:80/stories/HL0809/S00127.htm> (last visited Sept. 10, 2008); see also David Berlinski, *On the Origins of Life*, COMMENTARY MAG., Feb. 2006, at 22; Robert Shapiro, *A Simpler Origin of Life*, 296 SCI. AM. 46 (June 2007) (another origins of life expert, Shapiro, explaining the daunting hurdles that any origin of life theory must overcome).

52. Shapiro, *supra* note 51, at 46-53.

53. John I. Glass et al., *Essential Genes of a Minimal Bacterium*, in PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA (PNAS) [hereinafter PNAS], at 429.

54. Copyright © 2008 John H. Calvert.

Thus, ATG specifies the start of a gene, AGA selects for the amino acid arginine, other combinations select for nineteen other amino acids, like letters of the alphabet, and TGA provides a stop code at the end of a gene.



**Figure 2: DNA Sequences Are Arbitrary, Not Necessary**

Like a linear Morse Code message, the messages in DNA strands are manifested by specific sequences of the four bases along the linear sugar-phosphate backbone. Two copies of the same message are twined together in the DNA double helix. When it is time for the message to be read (expressed), the two strands are separated and a copy of one strand is made, edited, and sent to a translating processor called a ribosome. The ribosome reads the symbols in groups of three symbols called “codons.” Each codon is then translated by the ribosome into one of twenty amino acids (like the twenty-six letters of the English alphabet). The amino acids are then hooked together into long chains that are then folded into three-dimensional shapes. The shapes become tools and catalysts (called enzymes), construction materials, and all of the input, output, and processing devices necessary to timely build, operate, and maintain new cells and properly relate them to one another and the organism they comprise.<sup>55</sup>

55. This description is very general. New discoveries show that genes may be expressed in many different ways so that one gene may function to produce many different gene products. Large parts of the genome appear to be ordered per codes yet to be discovered. Some of the depth of this fascinating mystery is found in a compilation of articles published in 2006. See, e.g., David G. King et al., *Tuning Knobs in the Genome: Evolution of Simple Sequence Repeats by Indirect Selection*, in *THE IMPLICIT GENOME 77* (Lynn Caporale ed., 2006); see also James A. Shapiro, *A Third Way*, *BOSTON REV.*, Feb./Mar. 1997, at 32, available at <http://shapiro.bsd.uchicago.edu/Shapiro.1997>. *BostonReview1997.ThirdWay.pdf*.



A key fact relevant to step two in the explanatory filter is that the function of any gene product is dependent on the specific sequence of the bases that make up the message in DNA, *while the sequence itself is not dictated by any known physical or chemical law or necessity.*<sup>56</sup> As shown in Figure 2, the bases that make the sequences are each *physically* related or bound to the sugar phosphate back bone, but they are not physically related or bound to each other along that back bone. However, the bases are *functionally* related to the message that their sequence expresses. The same is true for this article. Each letter is *physically* related to the paper with ink, but the letters are not *physically* related to each other. They are only related to each by the function or meaning they serve to express. As a consequence, combinations of the twenty-six letters and some punctuation marks can be used to specify an infinite variety of messages and meaning. In the same way, due to the lack of chemical necessity, DNA has the capacity to carry information that provides for a seemingly infinite variety of life.

Watson and Crick actually postulated that the sequences of bases in DNA would not be chemically dependent or ordered.<sup>57</sup> If they were, DNA would then lack the capacity to carry biological information.<sup>58</sup> Even Kenneth Miller, the expert witness upon whom Judge Jones relied for his opinion, has stated that this claim is so true as not to be an issue even worthy of mention.<sup>59</sup>

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56. As Jacques Monod explains:

The *ultimate ratio* of all the teleonomic structures and performances of living beings is thus enclosed in the sequences of residues making up polypeptide fibers. . . . In a sense, a very real sense, it is at this level of chemical organization that the secret of life lies, if indeed there is any one such secret. And if one were able not only to describe these sequences but to pronounce the law by which they assemble, one could declare the secret penetrated, the *ultimate ratio discovered*.

JACQUES MONOD, CHANCE AND NECESSITY 95-96 (Austryn Wainhouse trans., Vintage Books 1971) (1970).

57. In their words:

So in building models we would postulate that the sugar-phosphate backbone was very regular, and the order of bases of necessity very irregular. If the base sequences *were always the same*, all DNA molecules would be identical and there would not exist the variability that must distinguish one gene from another.

JAMES WATSON ET AL., THE DOUBLE HELIX: A PERSONAL ACCOUNT OF THE DISCOVERY OF THE STRUCTURE OF DNA 52-54 (1998) (emphasis added).

58. *Id.*

59. Dr. Miller questioned the need for mentioning this fact in the science standards by noting that “no scientist has *ever* suggested otherwise.” JOHN H. CALVERT & WILLIAM S. HARRIS, THE AUTHORS’ SUGGESTED FINDINGS OF FACT AND CONCLUSIONS OF LAW 19 (May

Because the elements that comprise the messages that run life are not ordered by any physical or chemical necessity, Nobel Laureate Jacques Monod, a renowned French biologist, concluded that the natural cause explanation for all bio-diversity ultimately reduces to chance, the third step in the explanatory filter.<sup>60</sup>

However, the chance hypothesis is inherently problematic, because the messages in DNA are very long and integrated with one another for life to function properly. Long messages are a problem for Monod's chance explanation, because probability decreases exponentially as the number of elements necessary for a given function increase only incrementally. For example, the average gene of the simplest of cells, a bacterium, is about 900 genetic bases long.<sup>61</sup> There are four possible outcomes at each position in the 900-step sequence, as there are four different genetic nucleotide bases. Thus, the probability of a chance formation of just one of the 382 genes needed for life is  $1/4$  multiplied by itself 900 times or  $1/4^{900}$ . This translates into a probability of approximately  $1/10^{540}$ .<sup>62</sup> The universe contains only  $10^{80}$  elemental particles, which change state at the rate of  $10^{45}$  per second.<sup>63</sup> If one assumes that the universe has been in existence for a billion times 20 billion years, then only  $10^{25}$  seconds have elapsed since the big bang. Hence, according to William Dembski, the total number of events that have ever occurred in the universe is not more than  $10^{150}$ .<sup>64</sup>

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26, 2005), <http://www.KansasScience2005.com> (submitted to the Kansas State Board of Education Hearing Committee).

60. MONOD, *supra* note 56, at 112.

61. Lin Xu et al., *Average Gene Length Is Highly Conserved in Prokaryotes and Eukaryotes and Diverges Only Between the Two Kingdoms*, 23 *MOLECULAR BIOLOGY & EVOLUTION* 1107 (2006), available at <http://mbe.oxfordjournals.org/cgi/content/full/23/6/1107>.

62. The calculation was recently described in an analysis of the chance formation of simple repetitive sequences of bases in the genome:

The probability that a particular sequence of  $n$  base pairs will appear at a specified site in a random DNA sequence is approximately  $(1/4)^n$  [assuming equal proportions of each nucleotide]. Thus any repeated sequence longer than 20 or so base pairs is unlikely to appear solely by chance, even once, anywhere in the  $3 \times 10^9$  base pairs of the human genome.

King et al., *supra* note 55, at 77. One can convert a number to a power of ten using a log calculator at <http://www.1728.com/logrithm.htm>:  $\log 4$  rounded to two places is 0.60. That number times 900 is 540, so  $4^{900}$  approximately equals  $10^{540}$ .

63. WILLIAM A. DEMBSKI, *NO FREE LUNCH: WHY SPECIFIED COMPLEXITY CANNOT BE PURCHASED WITHOUT INTELLIGENCE* 21-22 (2002).

64. *Id.*  $10^{150}$  is referred to as the universal probability bound. *Id.* Thus, any chance event less probable than 1 over  $10^{150}$  may be considered implausible. *Id.*

Accordingly, when the probability of the chance formation of a single gene is questioned, assuming the process began at the instant of the big bang, the numerator cannot contain a number greater than  $10^{150}$  while the denominator contains a number of  $10^{540}$ . The result is a probability of  $1/10^{390}$ . When this number is rounded to the 150th place, the result is zero. One mathematician has calculated the odds of a chance formation of life at  $1/10^{186,000}$ .<sup>65</sup>

Origin of life expert Andrew Knoll has said that humans are basically ignorant as to any natural cause for the origin of life itself.<sup>66</sup> There is no known natural cause for the origin of the genetic code.<sup>67</sup> The best of millions of possibilities has been said to exhibit “Eerie Perfection.”<sup>68</sup> Lacking a coherent chemical origin of life, the *prima facie* design of the messages needed to get it started has not been shown to be an illusion. Hence, ID is the best current explanation for the origin of life itself.

##### 5. ID and Biological Evolution

Biological evolution seeks to explain the diversity of life using only natural or material causes. It assumes chemical evolution occurred, even though that assumption is based on an essential state of ignorance, as mentioned by Dr. Knoll.<sup>69</sup> It then argues that once life arose and began to replicate, random variations in the original messages of life occasionally produced positive new functions (adaptations) that increased the fitness of populations of the organism. Over billions of years of descent with modification, first life evolved into all the varieties of life that currently inhabit the Earth, plus many more that have become extinct.

Most agree that random variation and natural selection can explain the fine-tuning of variation within populations of interbreeding organisms and even speciation, commonly referred to as “micro-evolution.” However, numerous scientists have expressed reservations about the adequacy of

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65. Hubert Yockey, *Calculating Evolution*, 3 COSMIC PURSUIT 28 (2003).

66. “[W]e don’t really know how life originated on this planet. There have been a variety of experiments that tell us some possible roads, but we remain in substantial ignorance.” NOVA – Origins (NOVA), <http://www.pbs.org/wgbh/nova/orgins/knoll.html> (last visited Mar. 27, 2009); see also Shapiro, *supra* note 51.

67. See generally Berlinski, *supra* note 51.

68. In *Life’s Solution: Inevitable Humans in a Lonely Universe*, paleontologist Simon Conway Morris devotes a sub-chapter to the extraordinary efficiency of the Genetic Code, which he calls “EERIE PERFECTION.” SIMON CONWAY MORRIS, *LIFE’S SOLUTION: INEVITABLE HUMANS IN A LONELY UNIVERSE* 13 (2003); see also Stephen J. Freeland & Laurence D. Hurst, *The Genetic Code Is One in a Million*, 47 J. MOLECULAR EVOLUTION 238 (1998).

69. See NOVA, *supra* note 66.

random mutation and natural selection to explain large scale increases in complexity, or macro-evolutionary change.<sup>70</sup> A 2004 compilation of articles lists twenty-six major unanswered questions facing evolutionary biology, including the origin of organismal forms like the major body plans that arose during the Cambrian Explosion “in a burst.”<sup>71</sup>

Professor Michael Behe, a key witness in *Kitzmiller*, argues that evolutionary biologists have yet to provide any plausible detailed explanation of how random mutation and natural selection could have produced irreducibly complex biological systems, such as a bacterial flagellum. His argument is detailed in *Darwin's Black Box* and *The Edge of Evolution*.<sup>72</sup> An irreducibly complex system is one composed of several well-matched interacting parts that contribute to a basic biological function and where the removal of any one of the parts causes the system to effectively stop functioning.<sup>73</sup> Certain biological systems, like mouse traps and other human-made machines, require many integrated components before they function as a whole. Natural selection acts as a saboteur rather than a helper during assembly of such systems when function is absent.<sup>74</sup>

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70. The Discovery Institute maintains a website of scientists holding doctoral degrees that have publicly stated their skepticism of the ability of random mutation and natural selection to account for the complexity of life. As of 2008, the list had grown to over 700, many of whom are highly regarded. The statement reads: “A SCIENTIFIC DISSENT FROM DARWINISM. 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.” <http://www.discovery.org/scripts/viewDB/filesDB-download.php?command=download&id=660> (last visited Mar. 27, 2009).

71. Gerd Muller and Stuart Newman compiled articles by seventeen scientists. GERD MULLER & STUART NEWMAN, ORIGINATION OF ORGANISMAL FORM (2003). In the introductory chapter, they develop a list of twenty-six questions addressed that remain unanswered, including: “Why did metazoan body plans arise in a burst?” (*i.e.*, the “Cambrian Explosion”); “Why do similar morphologies arise independently and repeatedly?”; “Why do distantly related lineages produce similar *designs*?”; “Why do building elements organize as fixed body plans and organ forms?”; “How are new elements introduced into existing body plans?” *Id.* at 5 (emphasis added).

72. MICHAEL BEHE, DARWIN'S BLACK BOX: THE BIOCHEMICAL CHALLENGE TO EVOLUTION (1996) [hereinafter BEHE, DARWIN'S BLACK BOX]; *see also* MICHAEL J. BEHE, THE EDGE OF EVOLUTION: THE SEARCH FOR THE LIMITS OF DARWINISM (2007) [hereinafter BEHE, THE EDGE OF EVOLUTION]; Michael Behe, *Reply to My Critics: A Response to Reviews of Darwin's Black Box: The Biochemical Challenge to Evolution*, 16 *BIOLOGY & PHIL.* 685 (2001).

73. BEHE, DARWIN'S BLACK BOX, *supra* note 72, at 39-40.

74. Robert Deyes & John Calvert, *We Have No Excuse: A Scientific Case for Relating Life to Mind*, UNCOMMON DESCENT, Mar. 27, 2009, available at <http://www.uncommondescent.com/intelligent-design/we-have-no-excuse-a-scientific-case-for-relating-life-to-mind-part-ii/>.

That leaves the generation of selectable basic function to random variation, a stochastic process that is not statistically plausible where numerous integrated steps are required before selectable function arises.<sup>75</sup>

Scientists arguing against ID have claimed that the argument of irreducible complexity has been defeated.<sup>76</sup> However, these claims appear to be supported more by a unified materialistic bias than detailed showings of how natural causes have coincidentally combined to produce the exquisitely fine-tuned biological systems required for life. Evolutionary biologists, in a paper published in the Proceedings of the National Academy of Science in 2007, acknowledge that science has yet to “explain how seemingly well designed features of [an] organism . . . is [sic] achieved without a sentient Designer.”<sup>77</sup> Furthermore, neuroscientists acknowledge their ignorance as to the cause of consciousness, the core ingredient of intelligence and sentience.<sup>78</sup>

Actually, a revolution appears to be occurring in bio-science and evolutionary biology due to recent discoveries. The sequencing of the entire genomes of a number of organisms has revealed that much of the human genome previously thought to be an accumulation of evolutionary “junk” is actually functional.<sup>79</sup> James A. Shapiro, a molecular biologist at

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75. See BEHE, *THE EDGE OF EVOLUTION*, *supra* note 72, at 44-63; Michael J. Behe & David W. Snoke, *Simulating Evolution by Gene Duplication of Protein Features that Require Multiple Amino Acid Residues*, *PROTEIN SCI.*, Sept. 2, 2004.

76. See Behe, *supra* note 72.

77. Adam S. Wilkins, *Between “Design” and “Bricolage”: Genetic Networks, Levels of Selection, and Adaptive Evolution*, in *PNAS*, *supra* note 53, at 8591. “[T]he challenge for evolutionary biologists is to explain how seemingly well designed features of [an] organism, where the fit of function to biological structure and organization often seems superb, is achieved without a sentient Designer.” *Id.*

78. Christof Koch & Susan Greenfield, *How Does Consciousness Happen?*, 297 *SCI. AM.* 76, 76 (Oct. 2007); *see id.* at 77 (referring to Koch and Greenfield as “two leading neuroscientists”). The full quotation reads: “How brain processes translate to consciousness is one of the greatest un-solved questions in science. Although the scientific method can delineate events immediately after the big bang and uncover the biochemical nuts and bolts of the brain, it has utterly failed to satisfactorily explain how subjective experience is created.” *Id.* at 76.

79. John S. Mattick, *The Hidden Genetic Program of Complex Organisms*, 291 *SCI. AM.* 60, 61 (Oct. 2004).

Assumptions can be dangerous, especially in science. They usually start as the most plausible or comfortable interpretation of the available facts. But when their truth cannot be immediately tested and their flaws are not obvious, assumptions often graduate to articles of faith, and new observations are forced to fit them. Eventually, if the volume of troublesome information becomes unsustainable, the orthodoxy must collapse.

*Id.*

the University of Chicago, believes the revolution will replace random mutation and natural selection as the core mechanisms of change.<sup>80</sup> He argues that science must replace orthodoxy with open-minded inquiry.<sup>81</sup> Health scientists find the reduction to natural cause orthodoxy holds back new ways of thinking necessary to achieve cures for disease and cancer.<sup>82</sup> Nobel Laureate Robert Laughlin refers to evolution as an “antitheor[y]” that is “not even wrong.”<sup>83</sup> The revolution and need for a new theory of evolution was evidenced by a conference held in Altenburg, Austria in July 2008 where sixteen “rock stars” of evolutionary biology met to develop a revised “evolutionary synthesis.”<sup>84</sup>

Hence, gaps exist in the evidence or knowledge that form the basis for the scientific historical narrative that seeks to explain origins using only

80. See Shapiro, *supra* note 55.

81. *Id.*

82. Marc H.V. Van Regenmortel, *Reductionism and Complexity in Molecular Biology*, EUROPEAN MOLECULAR BIOLOGY ORG. (EMBO) REPORTS, Nov. 2004, at 1016.

The reductionist method of dissecting biological systems into their constituent parts has been effective in explaining the chemical basis of numerous living processes. However, many biologists now realize that this approach has reached its limit. Biological systems are extremely complex and have emergent properties that cannot be explained, or even predicted, by studying their individual parts. The reductionist approach—although successful in the early days of molecular biology—underestimates this complexity and therefore has an increasingly detrimental influence on many areas of biomedical research, including drug discovery and vaccine development. . . . As the value of methodological reductionism has been particularly evident in molecular biology, it might seem odd that, in recent years, biologists have become increasingly critical of the idea that biological systems can be fully explained using physics and chemistry.

*Id.*

83. ROBERT LAUGHLIN, *A DIFFERENT UNIVERSE: REINVENTING PHYSICS FROM THE BOTTOM DOWN* 168 (2006) (Nobel Laureate).

Most important of all, however, the presence of such corollaries raises the concern that *much of present-day biological knowledge is ideological*. A key symptom of ideological thinking is the explanation that has no implications and cannot be tested. I call such logical dead ends antitheories because they have exactly the opposite effect of real theories: they stop thinking rather than stimulate it. *Evolution by natural selection, for instance, which Charles Darwin originally conceived as a great theory, has lately come to function more as an antitheory, called upon to cover up embarrassing experimental shortcomings and legitimize finds that are at best questionable and at worst not even wrong.*

*Id.* (emphasis added).

84. Suzan Mazur, *The Altenberg 16: Will the Real Theory of Evolution Please Stand Up?*, <http://www.scoop.co.nz/stories/HL0807/S00053.htm> (last visited Jul. 6, 2008).

natural causes. Cosmological, chemical, and biological evolution are scientifically controversial, and we do not in fact “know” the cause of much biodiversity and consciousness.

In summary, one may conclude that ID challenges to natural cause explanations of natural phenomena (1) date back in recorded history to ancient Greek philosophy and not from literal interpretations of the book of Genesis, (2) derive from logical analyses and inferences from intersubjectively accessible data using standard methods of science, (3) are not promoted as orthodoxies but rather as refutable scientific hypotheses, (4) represent the primary test of materialistic theories of origin, (5) bring objectivity rather than orthodoxy into an historical science that methodologically demands it, (6) use a method that limits their explanations to inferences reasonably drawn from available evidence, and therefore make limited claims as to the source, nature, and purpose of any hypothesized intelligent cause, (7) make useful scientific predictions and provide working hypotheses in operational bio-science,<sup>85</sup> and (8) are not a faith-based claim of truth.

### III. THE MEANING OF THE WORD “RELIGION”

#### A. *The Roots of Religion*

In *McGowan v. Maryland*, the Supreme Court concluded that “religion is an . . . aspect of human thought and action which profoundly relates the life of man to the world in which he lives.”<sup>86</sup> As explained above, there are two major competing ideas about that relationship. Both have spawned and supported a variety of religions and religious beliefs. The ID or teleological idea is that life is related to the world through a creator. Life is the “end,” or telos, of a creative process; it is a gift given for a purpose. The competing materialistic idea is that life is not created, it just “arises from materials and forms of the past.”<sup>87</sup> Life is an occurrence, a found object, not a gift. Since it is a found object, it should be led according to human reason rather than the wisdom of a mythical and fictitious god.

As explained above, Socrates, Plato, and Aristotle argued for the teleological idea, while Democritus and Epicurus made the case for materialism. Epicurus also explained the origin of the species through an evolutionary process that relied on random variation and natural selection

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85. See *infra* Part VI.C.4.

86. *McGowan v. Maryland*, 366 U.S. 420, 461 (1961) (Frankfurter, J., concurring) (joined by Harlan, J.).

87. See *infra* Part VI.A.

as the source of the observed present diversity of life.<sup>88</sup> The Epicurean origins narrative was not based on observations of change in process, but on faith that the imagined change occurred by chance within an infinite universe without any intelligent intervention.<sup>89</sup> Epicureans were not able to identify atoms or voids. Nor were they able to observe an eternal or infinite universe or the generation of new species. Their ideas about the ultimate reality were essentially grounded in faith.<sup>90</sup>

The idea born by Democritus inspired Epicurus and Lucretius (94-49 BC) to make it the central orthodoxy of a new religion designed to replace theistic religions:

In the hands of Democritus' eventual heir Epicurus, atomism was to become a vital weapon against divine creation, as we shall shortly see. Belief in divine creation brings with it, according to Epicurus, intolerable religious consequences compelling us to assume that our own lives are under divine surveillance, and to live in terror of the threats this poses. To recognize the *truth* of atomism in Epicurus' eyes, has the incalculable merit of freeing us from those consequences by permitting us to account for the world and its contents as the products of mere accident, freed from the specter of divine control.<sup>91</sup>

Relating life to matter rather than mind has a profound significance: matter, lacking a mind, cannot imbue life with an inherent purpose. Life becomes a found object rather than a creation made for a purpose. A theist seeks to ascertain the purpose of life by understanding the Creator's purpose in making it. However, a materialist who denies that life has a purpose seeks to fashion a purpose from human reason. As explained by Sedley, materialism places man, rather than God, in control of life. The ultimate reality is matter, not mind. Man becomes an autonomous entity rather than a servant to a master.

Jesus explains that for a Christian to lead life consistent with the Creator's purpose, the Christian must remove the self and replace it with the self of God: "If anyone would come after me, *he must deny himself* and take up his cross daily and follow me."<sup>92</sup> But if materialism as explained by Sedley is true, then there is no God to direct the self. Hence, the human has

88. BENJAMIN WIKER, MORAL DARWINISM: HOW WE BECAME HEDONISTS 62 (2002).

89. SEDLEY, *supra* note 19, at 155.

90. *Id.*

91. *Id.* at 134.

92. *Luke* 9:23 (New International Version) (emphasis added).



no alternative but to rely entirely on one's own "self," not an imagined fictitious mind of the Creator of the self.

Based on this view of reality and human reason, Epicurus and Lucretius erected a set of beliefs about how life should be lived. The goal of life for the Epicurean was not a selfless quest to serve the purposes of God. Rather, it was a selfish one focused on the pursuit of happiness by seeking pleasure and avoiding pain or "disturbance."<sup>93</sup> The religious views generated by the Epicureans were at complete odds with those of Jews and Christians. They differed on issues of human autonomy, sex, abortion, marriage, life after death, suicide, and government.<sup>94</sup>

Epicureanism flourished during the First Century AD and was a major competitor to the new religion of Christianity. *Acts 17* describes a debate between the Apostle Paul and a group of Epicureans and Stoics in the Areopagus. He began his remarks with a commentary on the variety of religions that then occupied the marketplace:

Men of Athens! I see that in every way you are very religious. For as I walked around and looked carefully at your objects of worship, I even found an altar with this inscription: TO AN UNKNOWN GOD. Now what you worship as something unknown I am going to proclaim to you.<sup>95</sup>

In his letter to the Romans, he described the religious opposition as those who had "exchanged the truth of God for a lie, and worshiped and served created things rather than the Creator."<sup>96</sup> Although the passage does not specifically mention the Epicureans, it describes materialistic and pagan religions that view the world as the object of worship, rather than a transcendent intelligence.

Epicureanism is the precursor to the modern religion of "Secular" Humanism. According to the *Humanist Manifesto II*, Humanism traces its "roots from ancient China, classical Greece and Rome, through the Renaissance and the Enlightenment, to the scientific revolution of the modern world."<sup>97</sup> It was developed in the first half of the twentieth century by John Dewey, Charles Potter, and others to insert into the public school.<sup>98</sup>

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93. WIKER, *supra* note 88, at 10.

94. *Id.* at 24.

95. *Acts 17:22-23* (New International Version).

96. *Romans 1:25* (New International Version).

97. *Humanist Manifesto II* (1973), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanism/Humanist\\_Manifesto\\_II](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_II).

98. CHARLES FRANCIS POTTER, HUMANISM: A NEW RELIGION 3, 128 (1930) ("Education is the most powerful ally of Humanism, and every American public school is a school of Humanism. What can the theistic Sunday Schools, meeting for an hour once a week, and

The first *Manifesto* declared it to be a new religion designed to replace traditional religions that

have lost their significance and which are powerless to solve the problem of human living in the Twentieth Century. . . . [T]he time has passed for theism. . . . [We] regard the universe as self-existing and not created. . . . [Man] has emerged as a result of a continuous process. . . . [T]he nature of the universe depicted by modern science makes unacceptable any supernatural or cosmic guarantees of human values[, and therefore] [H]umanism . . . insist[s] that the way to determine the existence and value of any and all realities is by means of intelligent inquiry and by the assessment of their relations to human needs. *Religion must formulate its hopes and plans in the light of the scientific spirit and method.* . . . Religious humanism maintains that all associations and institutions exist for the fulfillment of human life. The intelligent evaluation, transformation, control, and direction of such associations and institutions with a view to the enhancement of human life is the purpose and program of humanism. *Certainly religious institutions, their ritualistic forms, ecclesiastical methods, and communal activities must be reconstituted as rapidly as experience allows, in order to function effectively in the modern world.*<sup>99</sup>

*Manifestos II*<sup>100</sup> and *III*,<sup>101</sup> published in 1973 and 2003 respectively, express essentially the same religious views. *Manifesto II* states: "Humanism can provide the purpose and inspiration that so many seek; it can give personal meaning and significance to human life. . . . *Free thought, atheism, agnosticism, skepticism, deism, rationalism, ethical culture, and liberal religion all claim to be heir to the humanist tradition.* . . ."<sup>102</sup>

Religions are not static. They change and evolve. Although atheistic beliefs have existed for millennia, the view of a heretic was not treated kindly until the last few hundred years. Atheism began to gain respectability during the nineteenth century as opposition to the organized

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teaching only a fraction of the children, do to stem the tide of a five-day program of humanistic teaching?").

99. *Humanist Manifesto I* (1933), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanism/Humanist\\_Manifesto\\_I](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_I) (emphasis added).

100. *Humanist Manifesto II*, *supra* note 97.

101. *Humanist Manifesto III* (2003), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanist\\_Manifesto\\_III](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_III).

102. *Humanist Manifesto II*, *supra* note 97 (emphasis added).

Church began to grow. It was embraced by Sarte, Diderot, Rousseau, Hume, and Marx. Many of those teaching religion on college campuses are Atheists, Agnostics, and “Secular” Humanists. They sometimes call themselves “Free-thinkers” and promote their beliefs through magazines and publications.

During the first three centuries of the Christian Church, before the development of the Nicene Creed, Christians were not required to believe in the trinity or salvation only through Christ. Unitarians disbelieved in the trinity, and Universalists believed all would be saved. Following the reformation, those two sects fled from persecution to the United States where they developed liberal religious perspectives that culminated in a merger in 1961 into the Unitarian Universalist Church. Secular Humanists and Atheists have found a home in that Church as it now embraces “a rich pluralism that includes theist and atheist, agnostic and humanist, pagan, Christian, Jew, and Buddhist.”<sup>103</sup>

Materialism does not entail Atheism, since many materialists do not deny God. Epicurus and Lucretius are examples. Instead, they deny a creator God, one who intervenes in the natural world. As a consequence, they deny a relevant God. Thus, the competition can be viewed as one between creationists (in the broadest sense of the term) and their supporters on the one hand and materialists and their supporters on the other.<sup>104</sup>

A religion that embraces materialism as a tenet logically entails that the purpose of life depends on human reason rather than the word of a non-existent or irrelevant God. That has led Epicureans, Atheists, “Secular” Humanists, and other modern non-theistic religious groups such as “Freethought” societies to look to science and the scientific method for guidance as to how to live life. Although materialistic religions claim to rely on reason and science, rather than creeds and dogmas, they actually adopt orthodoxies that function in the lives of their adherents in the same manner as competing Christian orthodoxies. The central creed of the “Secular” Humanist and Atheist is that materialism is true. The central

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103. Mark W. Harris, *Unitarian Universalist Origins: Our Historic Faith*, <http://archive.uua.org/info/origins.html>.

104. See discussion on the remarks of Daniel Dennet in Part VII.A.4; see also JOHN B. FOSTER ET AL., *CRITIQUE OF INTELLIGENT DESIGN: MATERIALISM VERSUS CREATIONISM FROM ANTIQUITY TO THE PRESENT* 23 (2008). As used in this article, the term “creationist” is used in its broadest sense to include any view that life is the product of a mind or some form of intelligence as well as those who believe government should not actively suppress that viewpoint. Similarly, as used herein, a “materialist” includes those who take the position that life and its diversity has arisen from a series of unguided material causes, as well as theists who believe government should promote that materialistic view exclusively in public schools.

creed of a traditional theist is that materialism is false. Both kinds of religions embrace competing creeds regarding the nature and purpose of life.

Even some Christians have embraced materialism through the development of a kind of religion called "theistic evolution." According to Francis Collins, theistic evolution is a sect that rejects any creative intervention in the natural world after life got started.<sup>105</sup> Other theistic evolutionists would exclude intervention from the origin of life itself.<sup>106</sup> This brand of Christianity may also rely more on human reason and science than scripture for guidance about how life should be lived. Mainstream churches that have embraced "evolution" in resolutions reflect the development of new religious "sects" from which many traditional theists are fleeing.<sup>107</sup>

Those who define religion as consisting only of belief in God often refer to competing non-theistic religions as philosophies, secular worldviews or secularism. However, when the occasion necessitates a religious classification, these secularists embrace it. As a consequence, non-theists have claimed religious exemptions from combat, have obtained tax status as religious organizations, have petitioned to operate an Atheistic church in prison, and have routinely claimed to hold "religious beliefs" to gain standing to complain about the practices of their theistic competitors.<sup>108</sup>

Today the primary religious competition does not seem to be between various Christian sects, but rather between those who believe life is created for a purpose, or "creationists," and materialists. A recent survey conducted by the Pew Foundation shows what we have learned from experience. Materialists have become very effective religious competitors. In the last thirty-five years, materialists and those declaring no or limited affiliation with theistic religion have grown from about eight percent of the

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105. FRANCIS S. COLLINS, *THE LANGUAGE OF GOD: A SCIENTIST PRESENTS EVIDENCE FOR BELIEF* 200 (2006).

106. KENNETH R. MILLER, *FINDING DARWIN'S GOD: A SCIENTIST'S SEARCH FOR COMMON GROUND BETWEEN GOD AND EVOLUTION* 187 (1999). Miller refers to Naturalism as "scientific materialism." *Id.* at 27. Miller tries to explain why the materialism that undergirds evolutionary biology need not conflict with theism. He fails, because he never explains how any materialistic process driven only by law and chance can produce purpose and why a materialistic explanation does not destroy the evidentiary basis for theistic belief. If the observed appearance of design is merely an illusion because it can be explained fully without resort to a mind or any form of intelligence, then the inference that supports theistic belief crumbles. Although Miller recognizes both of these problems as the central issues, he never reconciles them.

107. PEW FORUM ON RELIGION, *U.S. RELIGIOUS LANDSCAPE SURVEY 2008*, 23 (2008).

108. See discussion *infra* Part III.B.3.c. for cases discussing these holdings.

population to around eighteen percent today.<sup>109</sup> If this trend continues, one might expect the United States to follow England, where experts predict traditional Church-going will decline by seventy-eight percent by 2050.<sup>110</sup> Materialists have also recruited as allies a large number of theists who prefer “reason and science” over the word of God. They prefer liberal Humanistic views regarding the sanctity of life, human sexuality, ethics, morals, feminism, and marriage.

## B. *The Meaning of “Religion” in the First Amendment*

### 1. Importance of the Definition of “Religion” in the First Amendment

Although the First Amendment benefits “religion” by permitting it to be freely exercised, it disadvantages religion by excluding it from governmental support. The Amendment excludes religion from public school classrooms as well as public offices and parks, where prayers and

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109. PEW FORUM ON RELIGION, *supra* note 107, at 5. The 2008 Survey shows in a table on page 5 that “Unaffiliated” faiths such as Atheism, Agnostic and Nothing in Particular at 16.1%. Unitarian and other “Liberal” religions account for another 1.1%; Buddhism, a non-theistic religion, accounts for about 0.7%, for a total of about 18%. Within the 18-29 age group, 28% fall in these categories (see table, *id.* at 37, which shows 25% of 15-29 age group “unaffiliated,” 2% other faiths, and 1% Buddhist for a total of 28%). Other surveys conducted in the 1980s showed the total unaffiliated between 5% and 8%. *Id.* at 20. A more recent survey conducted by Trinity College shows that Christians declined from 86.2% in 1990 to 76% in 2008. The “nonreligious, irreligious and anti-religious bloc,” which “includes anti-clerical theists, but the majority are non-theists,” were labeled as “Nones.” The Nones gained from 8% in 1990 to 15% in 2008. Those who declined to answer or did not know the answer to the key question: “What is your religion, if any?” increased from 2.3% in 1990 to 5.2% in 2008. As a group, the Nones and decliners grew from 10.3% to 20.2% in just 18 years. Table 4 shows with respect to belief in God 12.3% not being sure or denying God, while an additional 6.1% refused to answer the question, for a total of 18.4% in a grey area about belief in God. An additional 12.1% denied a personal God. The report summed it up this way: “A new belief question was introduced into ARIS in 2008. Table 4 shows that when asked about the existence of God less than 70 percent of Americans now believe in the traditional theological concept of a personal God.” BARRY KOSMIN & ARIELA KEYSAR, AMERICAN RELIGIOUS IDENTIFICATION SURVEY (ARIS 2008), SUMMARY REPORT at 2-3, 7-8 (2009).

110. Ruth Gledhill, *Churchgoing on Its Knees As Christianity Falls out of Favour*, TIMES (U.K.), May 8, 2008, at 6, available at 2008 WLNR 8582306.

Church attendance in Britain is declining so fast that the number of regular churchgoers will be fewer than those attending mosques within a generation, research published today suggests. The fall—from the four million people who attend church at least once a month today—means that the Church of England, Catholicism and other denominations will become financially unviable. . . . “The primary cause of the decrease in attendance is that people are simply dying off,” the report says.

*Id.*

religious displays are not permitted. Given the broad reach of government activities today, there remain few places where the views of theists are tolerated besides a church and private home.

Thus, a discriminatory religious classification can be a significant disadvantage. Perhaps it is even crippling to theistic religion as it seeks to order not only individual decisions, but also the collective decisions of the family and culture. Islam holds that its belief system cannot be separated or excluded from government. Christianity, however, is much different because it seeks to change the individual, who then seeps into the interstices of the culture like "salt" and "light" to effect change from within by example rather than by dictating doctrine from authority.<sup>111</sup> However, if government suppresses Christian expression in public forums, the salt is deprived of its saltiness.

Today the primary competition exists between traditional theistic religions and other religions that do not subscribe to a creative God. When the state seeks to move God out of public forums, it actually promotes another religious perspective. How does a truly "secular" government achieve neutrality in a competition between those who believe we should worship God and those who worship the absence of God? Excluding God to produce a no-God or Atheistic forum does not achieve a neutral effect. Whenever ideas and concepts are removed, vacuums arise that are often filled with competing ideas. Typically these competing ideas are just as religious as those excluded.

If the public forum is to be religiously neutral, the government logically has only two options. One is to exclude the subject matter that invokes a religious issue. The other is to retain the subject matter but treat it objectively and neutrally. If the subject matter is retained but only one view is allowed, then the state will be favoring one religious view over another. *Epperson v. Arkansas* involved a statute that retained the subject matter but excluded the materialistic view of origins.<sup>112</sup> As discussed in Parts VII and VIII *infra*, *Kitzmiller* retains the subject matter, but similarly excludes one of the competing views regarding an ultimate religious question.

## 2. The Word "Religion" Has One Meaning in the First Amendment

The two religion clauses in the First Amendment state: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof . . . ."<sup>113</sup> In *Malnak v. Yogi*, Judge Adams was confronted

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111. See *Matthew* 5:13-16 (New International Version).

112. *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968).

113. U.S. CONST. amend I.

with the argument that the word “religion” in this passage has two meanings.<sup>114</sup> He was asked to construe religion in the Free Exercise Clause (FEC) as having a broad and comprehensive meaning that protects the “ultimate concerns” or beliefs of the individual, while finding it to have a narrow theistic meaning in the Establishment Clause (EC).<sup>115</sup> The rationale was that a broad use of the term in the EC would unduly restrict the subject matter that government might support. For example, a broad meaning in the EC would preclude government from supporting the teaching in public schools of the “science of creative intelligence and transcendental meditation” (SCI/TM).<sup>116</sup> The course in SCI/TM dealt with the ultimate concerns of humans, but did not promote belief in a traditional God.

In responding to this argument, Judge Adams first noted that logic and coherent application of the EC and FEC demand one meaning for the word “religion.” This follows because the word appears only once in a sentence that contains both clauses. The word first appears in the EC and then is incorporated by reference into the FEC by the word “thereof.”<sup>117</sup> He noted that his assignment of a single meaning to the word appeared to be the position of the Supreme Court, as Justice Rutledge had reached that conclusion in *Everson v. Board of Education*:

“Religion” appears only once in the Amendment. But the word governs two prohibitions and governs them alike. It does not have two meanings, one narrow to forbid “an establishment” and another, much broader, for securing “the free exercise thereof.” “Thereof” brings down “religion” with its entire and exact content, no more and no less, from the first into the second guaranty, so that Congress and now the states are as broadly restricted concerning the one as they are regarding the other.<sup>118</sup>

More importantly, Judge Adams held that “the practical result of a dual definition is itself troubling” because it is discriminatory.<sup>119</sup>

Such an approach would create a three-tiered system of ideas: those that are unquestionably religious and thus both free from

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114. *Malnak v. Yogi*, 592 F.2d 197, 211-12 (3d Cir. 1979).

115. *Id.*

116. *Id.* at 197.

117. *Id.* at 211-12.

118. *Id.* at 211 (quoting *Everson v. Bd. of Educ.*, 330 U.S. 1, 32 (1947) (Rutledge, J., dissenting)). Judge Adams noted that although Rutledge’s views were in a dissenting opinion, his “views on the unitary definition of religion were not disputed by the majority.” *Id.*

119. *Malnak*, 592 F.2d at 212.

government interference and barred from receiving government support; those that are unquestionably non-religious and thus subject to government regulation and eligible to receive government support; and those that are only religious under the newer approach and thus free from governmental regulation but open to receipt of government support. That belief systems classified in the third grouping are the most advantageously positioned is obvious. No reason has been advanced, however, for favoring the newer belief systems over the older ones. If a Roman Catholic is barred from receiving aid from the government, so too should be a Transcendental Mediator or a Scientologist if those two are to enjoy the preferred position guaranteed to them by the free exercise clause. It may be, of course, that they are not entitled to such a preferred position, but they are clearly not entitled to the advantages given by the first amendment while avoiding the apparent disadvantages. *The rose cannot be had without the thorn.*<sup>120</sup>

Judge Adams used the example of a Scientologist, but the same would apply to an Atheist or "Secular" Humanist. If Atheism is deemed a religion for Free Exercise purposes, but not for Establishment Clause purposes, then government may support the promotion of its tenets in the public school classroom, but not deprive an atheist of standing to complain about a posting of the competing Ten Commandments in the same classroom. Indeed, "[t]he rose cannot be had without the thorn."<sup>121</sup>

Adams' point is that a dual definition of religion actually discriminates between religious beliefs. Those that have one kind of religious belief (Atheism) are to be preferred over those who have another (Christianity). This would seem entirely inconsistent with the core value of the Establishment Clause to render government neutral as between competing religious sects. A dual definition actually effects discrimination and a position that is not in fact neutral with respect to actually competing religious belief systems that seek adherents to their faith.

Accordingly, a single inclusive definition of religion is extraordinarily important. If the goal of the First Amendment is to cause government to be functionally neutral as to religion, then logic would seem to require that the definition used to implement that core value be functionally neutral and non-discriminatory.

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120. *Id.* at 212-13 (emphasis added).

121. *Id.* at 213.



### 3. The Meaning of Religion Must Accommodate the Growth of New Kinds of Religion

#### a. The Intent of the Draftsman – James Madison

The Constitution does not contain a definition of the word “religion.” Hence, the task of definition rests ultimately with the Supreme Court. In the 1987 case *Smith v. Board of School Commissioners of Mobile County*, Judge William Brevard Hand accurately described the position of the Supreme Court on the definition of “religion” when he said:

The Supreme Court has never stated an absolute definition of religion under the first amendment. Rather, the high court’s approach has been one of deciding whether conduct in a particular case falls within the protection of the free exercise clause or the prohibitions of the establishment clause.<sup>122</sup>

Twenty-one years later, the situation appears to be the same. The word “religion” in the First Amendment remains without precise definition. However, in describing the conduct that falls within and without that concept, the Court has made clear that the word has a broad and comprehensive meaning:

“Congress shall make no law respecting an establishment of religion[.]” did not limit the constitutional proscription to any particular, dated form of state-supported theological venture. The Establishment Clause withdrew from the sphere of legitimate legislative concern and competence a specific, but comprehensive, area of human conduct: man’s belief or *disbelief* in the verity of some transcendental idea and man’s expression in action of that belief or *disbelief*. . . .

. . . If the primary end achieved by a form of regulation is the affirmation or promotion of religious doctrine—primary, in the sense that all secular ends which it purportedly serves are derivative from, not wholly independent of, the advancement of religion—the regulation is beyond the power of the state.<sup>123</sup>

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122. *Smith v. Bd. of Sch. Comm’rs of Mobile County*, 655 F. Supp. 939, 975 (S.D. Ala. 1987), *rev’d on other grounds*, 827 F.2d 684 (11th Cir. 1987).

123. *McGowan v. Maryland*, 366 U.S. 420, 465-66 (1961) (Frankfurter, J., concurring) (joined by Harlan, J.) (emphasis added). The single dissent in *McGowan*, issued by Justice Douglas, also reflects a comprehensive definition of religion. *See id.* at 564 (Douglas, J., dissenting).

Supreme Court discussions of the history of the meaning of religion suggest that James Madison, the key author of the First Amendment, intended a broad meaning.<sup>124</sup> If Madison had intended a narrow meaning, he could have inserted a definition or added a limiting modifier. By leaving the word undefined in the First Amendment, he made it possible for the word to apply to religious conduct not then contemplated or comprehensible. The reformation that began in the sixteenth century sparked the development of numerous new religions. The religion clauses grew out of a history of major strife and competition between new Christian sects who had fled England and Europe to escape religious persecution by governments that established state religions that discriminated against and persecuted those of different sects as well as those who were heretics and blasphemers.<sup>125</sup> Included within those fleeing were Unitarians and Universalists who eventually united, establishing the Unitarian Universalist Association that has eliminated the central theistic creed that life is a creation.<sup>126</sup> In Madison's 1785 "Remonstrance against a Bill establishing a provision for Teachers of the Christian Religion," he argued that such a preference was only a step removed from an inquisition that would persecute heretics who might disagree with the established religion. He noted that the country's nature as an "asylum" for the persecuted from all over the world would become itself an instrument of persecution.<sup>127</sup>

#### b. Religions Evolve

A survey of the history of the U.S. and of jurisprudence surrounding the adoption of the Bill of Rights and its legislative history will lead to the view that most of the early citizens of the U.S. were likely theists, with few inclined to publicly deny a Creator. Hence, it is likely that religion was seldom associated with any belief other than a belief in God. Indeed, the country was formed with the unanimous consent of the thirteen colonies on the fundamental concept that its citizens derive their inalienable right to liberty from a Creator. However, with the influx of new ideas from East Asia and the rest of the world, the ascendancy of materialistic science, the secularization of education, and the age of information and media, religious views became increasingly diverse. The expansion of the concept of religion to accommodate the most extreme view against the concept of

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124. See the discussion of Madison's efforts to free the conscience from government-imposed religious views in *Everson v. Bd. of Educ.*, 330 U.S. 1, 8-13 (1947).

125. *Id.* at 8-11.

126. Mark W. Harris, *Unitarian Universalist Origins: Our Historic Faith*, <http://archive.uua.org/info/origins.html>.

127. James Madison, *Memorial and Remonstrance Against Religious Assessments* (June 20, 1785).

God—Atheism—was explained in the 2005 Seventh Circuit decision *Kaufman v. McCaughtry*, where Justice Wood relied on Justice Stevens' opinion in *Wallace v. Jaffree*:

As the Court put it in *Wallace v. Jaffree*: “At one time it was thought that this right [referring to the right to choose one’s own creed] merely proscribed the preference of one Christian sect over another, but would not require equal respect for the conscience of the infidel, the atheist, or the adherent of a non-Christian faith such as Islam or Judaism. But when the underlying principle has been examined in the crucible of litigation, the Court has unambiguously concluded that the individual freedom of conscience protected by the First Amendment embraces the right to select any religious faith or none at all.” *In keeping with this idea, the Court has adopted a broad definition of “religion” that includes nontheistic and atheistic beliefs, as well as theistic ones.* Thus, in *Torcaso v. Watkins*, it said that a state cannot “pass laws or impose requirements which aid all religions as against non-believers, and neither can [it] aid those religions based on a belief in the existence of God as against those religions founded on different beliefs.” *Indeed, Torcaso specifically included “Secular Humanism” as an example of a religion.*<sup>128</sup>

c. A Survey of the Cases Shows That Religion Has Been Defined Comprehensively To Accommodate New Religions

The following is a chronological discussion of the crucible of litigation which has brought us to the current realization that not only is religion within the United States different than it was two hundred years ago, but the First Amendment meaning of religion encompasses that difference.

i. 1871 – The State May Not Take a Position on a Religious Doctrine: *Watson v. Jones*<sup>129</sup>

In 1871, the Supreme Court heard a dispute between two Presbyterian sects divided over the issue of slavery. A ruling Presbyterian organization thought slavery was not consistent with God’s purpose for life, while members of a Kentucky Presbyterian church disagreed. Due to this

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128. *Kaufman v. McCaughtry*, 419 F.3d 678, 682 (7th Cir. 2005) (emphasis added) (citations omitted) (quoting *Wallace v. Jaffree*, 472 U.S. 38, 52-53 (1985), and quoting *Torcaso v. Watkins*, 367 U.S. 488, 495 & n.11 (1961)).

129. *Watson v. Jones*, 80 U.S. (13 Wall.) 679, 728-29 (1871).

disagreement over church doctrine, the Kentucky congregation sought to abandon the Presbytery and take with them their church property. The Court concluded that it could not decide the issue, for if it did it would cause the state to take a position on a religious doctrine and thereby effectively establish a preferred religious view.

In this country the full and free right to entertain any religious belief, to practice any religious principle, and to teach any religious doctrine which does not violate the laws of morality and property, and which does not infringe personal rights, is conceded to all. The law knows no heresy, and is committed to the support of no dogma, the establishment of no sect.<sup>130</sup>

The case is relevant to *Kitzmiller* because that court held that an orthodoxy or “dogma” that life arises from material or natural causes may not be challenged in a public school science class. In doing so, it caused the state to take a position on a religious dogma and thereby take sides in an inherently religious controversy. That holding would appear to be in conflict with the principle announced in *Watson v. Jones*.

- ii. 1940 – The Fourteenth Amendment Renders the First Amendment Applicable to Activities of State and Local Governments and Agencies: *Cantwell v. Connecticut*<sup>131</sup>

*Cantwell* involved the conviction of Jehovah’s Witnesses for soliciting contributions for religious purposes in violation of a state statute. The Court reversed the conviction on the grounds that the state statute prohibited the free exercise of the defendants’ religion under the First Amendment and was invalid under the Fourteenth Amendment.<sup>132</sup>

The significance of *Cantwell* to public education has likely been profound. One of the earliest functions of public education was to teach reading so that children could read the Bible. States were free to establish their own state religions if they chose to do so.<sup>133</sup> *Cantwell*’s holding made possible the decision in *McColum*<sup>134</sup> nine years later that effectively entailed the removal of religion from the classroom.

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130. *Id.* at 728.

131. *Cantwell v. Connecticut*, 310 U.S. 296 (1940).

132. *Id.* at 303.

133. *Everson v. Bd. of Educ.*, 330 U.S. 1, 13-14 (1947).

134. *McColum v. Bd. of Educ.*, 333 U.S. 203 (1948).

iii. 1944 – The State May Not Take a Position on the Validity of a Religious Belief: *United States v. Ballard*<sup>135</sup>

In 1944, the Supreme Court considered a case involving essentially a heresy trial. The heretics were promoters of the *I Am* religious movement that claimed James Ballard was a divine prophet of God. They were prosecuted for mail and wire fraud for soliciting contributions to the movement. Although the Ballards did not promote a non-theistic belief system, the Court described religion in a very broad sense as one that “embraces the right to maintain theories of life and of death and of the hereafter which are rank heresy to followers of the orthodox faiths.”<sup>136</sup> That being the case, the First Amendment does not permit the state to determine whether the beliefs are true or false and outlaw as heresy those deemed false.

The Court found that the religion clauses of the First Amendment entitle the individual to be free to believe anything about “life and of death and of the hereafter.”<sup>137</sup> In this respect the Court viewed the religion clause as one comprehended by the drafters as having a very comprehensive and broad reach:

The Fathers of the Constitution were not unaware of the varied and extreme views of religious sects, of the violence of disagreement among them, and of the lack of any one religious creed on which all men would agree. *They fashioned a charter of government which envisaged the widest possible toleration of conflicting views.* Man’s relation to his God was made no concern of the state. He was granted the right to worship as he pleased and to answer to no man for the verity of his religious views. The religious views espoused by respondents might seem incredible, if not preposterous, to most people. But if those doctrines are subject to trial before a jury charged with finding their truth or falsity, then the same can be done with the religious beliefs of any sect. When the triers of fact undertake that task, they enter a forbidden domain. The First Amendment does not select any one group or any one type of religion for preferred treatment.<sup>138</sup>

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135. *United States v. Ballard*, 322 U.S. 78, 87 (1944).

136. *Id.* at 86.

137. *Id.*

138. *Id.* at 87.

This case is relevant to *Kitzmiller*, as Judge Jones classified intelligent design (ID) as a religious claim because he found it scientifically invalid.<sup>139</sup> Although he did not deny its truth, Judge Jones characterized the idea that life is the product of an intelligent cause as “flawed,” “illogical,” and “contrived” while finding that attacks on the competing natural/material cause claim had been “refuted by the scientific community.”<sup>140</sup> Thus, if ID is a religious rather than scientific claim, he has caused the state to discredit the rationality and validity of that claim, a position that would seem to be proscribed by both *Ballard* and *Watson v. Jones*.<sup>141</sup> Arguably, only if both of the competing claims are scientific would the court be in a position to pass on the validity of either. However, if both claims are scientific, then the court would lack grounds to enjoin one as religious.

iv. 1947 – Separation Is To Be Achieved By Neutrality, Not Exclusion: *Everson v. Board of Education*<sup>142</sup>

In *Everson*, the Court was asked to address the scope of the meaning of the word “religion” and how the church and state should be separated. Is separation to be achieved through exclusion or through neutrality? In *Everson*, the state was providing transportation services to the patrons of public schools, which presumably included parents holding a variety of beliefs about God, including those parents who do not believe in Him at all. Given state support to the non-believer, was it permissible to provide subsidies to believers who chose to send their children to accredited parochial schools? Stated another way, may state services provided to the public in general be withheld from religious groups because of what they believe? Providing transportation to one group while denying it to another would be discriminatory rather than neutral.

The Court concluded that separation was to be achieved through neutrality rather than exclusion. Hence the reimbursement program was permissible as it achieved a neutral effect: “That Amendment requires the state to be a neutral in its relations with groups of religious believers and non-believers; it does not require the state to be their adversary. State power is no more to be used so as to handicap religions, than it is to favor them.”<sup>143</sup>

The basic concept that separation is to be achieved through neutrality rather than exclusion was viewed as a necessity due to the wide diversity of

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139. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 707, 735 (M.D. Pa. 2005).

140. *Id.*

141. *See supra* Part III.B.3.c.i, iii.

142. *Everson v. Bd. of Educ.*, 330 U.S. 1, 8-9 (1947).

143. *Id.* at 18.

faiths. If separation is to be achieved by exclusion, then everyone in the population would be excluded because all have religious “faith.”<sup>144</sup>

v. 1948 – States Must Remove Religious Instruction from Their Schools: *McCullum v. Board of Education*<sup>145</sup>

In *McCullum*, state schools were inviting religious teachers to come into the school and substitute thirty minutes of religious teaching for thirty minutes of secular education. The Court found that the school could not promote the religious instruction because it was a violation of the First Amendment, imposed on the state by the Fourteenth Amendment.<sup>146</sup>

vi. 1957 – “Religion” Is Belief About God, Not Just Belief in God; Hence, “Secular” Humanism, a Non-theistic Belief System, Is a Religion: *Fellowship of Humanity v. County of Alameda*<sup>147</sup>

Over time the “asylum” described by Madison opened its doors to an increasingly diverse set of religious groups. Many of these religions espoused no God or a God or spirit that was not a personal Creator in the sense contemplated by the Declaration. John Dewey, Charles Potter, and others developed the religion of modern “Secular” Humanism in the 1920s, which is described in some detail under the Roots of Religion.<sup>148</sup>

By the early 1950s, fourteen humanist churches populated the City of Oakland under the organizational umbrella of *Fellowship of Humanity*. When the city denied a tax exemption for the property used by the churches on the grounds they were not being used “exclusively for religious worship,” the church filed suit to claim the religious exemption. The district court found that the exemption applied, and the city appealed. In deciding the case, the state appellate court assumed that the humanist doctrine embraced by the church included a belief “that a divine or superhuman being has no place in their beliefs,” and that “the adoration of, and reverence to, a deity have no place in the beliefs of respondent.”<sup>149</sup> The

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144. *Id.* at 16 (“On the other hand, other language of the amendment commands that New Jersey cannot hamper its citizens in the free exercise of their own religion. Consequently, it cannot *exclude* individual Catholics, Lutherans, Mohammedans, Baptists, Jews, Methodists, *Non-believers*, Presbyterians, or the members of any other faith, because of their faith, or lack of it, from receiving the benefits of public welfare legislation.” (emphasis added)).

145. *McCullum v. Bd. of Educ.*, 333 U.S. 203 (1948).

146. *Id.* at 210.

147. *Fellowship of Humanity v. County of Alameda*, 315 P.2d 394 (Cal. Ct. App. 1957).

148. *See supra* Part III.A.

149. *Fellowship of Humanity*, 315 P.2d at 398.

court then noted that those beliefs “present the fundamental question—is a belief in God or gods essential to ‘religious worship’?”<sup>150</sup>

In finding that “Secular” Humanism was a religion, the court first noted that many recognized religions exist which do not promote belief in a controlling deity:

In the first place there are forms of belief generally and commonly accepted as religions and whose adherents, numbering in the millions, practice what is commonly accepted as religious worship, which do not include or require as essential the belief in a deity. Taoism, classic Buddhism, and Confucianism, are among these religions. In the second place, there are dictionary definitions and decided cases holding that the terms “religion” and “religious worship” do not necessarily import a belief in a deity.<sup>151</sup>

In addition to dictionary definitions, the court reviewed the views of scholars and found that many scholars included non-theistic beliefs among the world’s recognized religions.<sup>152</sup> Importantly, the court recognized that Humanism was a religion that is promoted in Unitarian churches, a recognized religion that experienced a twenty-five percent growth rate between 1990 and 2000.<sup>153</sup>

Judge Peters also suggested that limiting religion to only belief in a deity “could lead to some strange results.”<sup>154</sup> Idol worshipers appealing to a sex goddess would be religious, while Humanists worshipping nature would not. In this respect, Judge Peters said,

It also follows, of course, that a great many unorthodox but theistic cults in the United States, such as Father Divine’s Peace Mission Movement, whose followers believe that Father Divine is God, would qualify for the exemption. Drawing the dividing line between theistic and non-theistic beliefs would seem to be somewhat arbitrary. In a country where religious tolerance is

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150. *Id.*

151. *Id.* at 401.

152. *Id.* at 404-05.

153. A website for the Unitarian Universalist Church shows the church grew in members in the United States from 500,000 in 1990 to 629,000 in 2001, a 25% increase. See <http://www.uufaq.com/#glue>.

154. *Fellowship of Humanity*, 315 P.2d at 405.



accepted it would not seem that the limited definition is in accord with our traditions.<sup>155</sup>

The court noted that a content-based definition is problematic because the Supreme Court in *United States v. Ballard* held that a court cannot examine the content of belief and pass on its validity.<sup>156</sup> As a consequence, Judge Peters concluded that courts must employ an objective rather than subjective standard for distinguishing between religion and non-religion.

Once the validity or content of the belief is considered, the test becomes subjective and invalid. Thus the only inquiry in such a case is the objective one of whether or not the belief occupies the same place in the lives of its holders that the orthodox beliefs occupy in the lives of believing majorities, and whether a given group that claims the exemption conducts itself the way groups conceded to be religious conduct themselves. The content of the belief, under such test, is not a matter of governmental concern. Under this test the belief or nonbelief in a Supreme Being is a false factor. The only way the state can determine the existence or nonexistence of "religious worship" is to approach the problem objectively.<sup>157</sup>

An objective inquiry ignores the content of belief. Instead, it uses recognized religions as a standard and then analyzes the target belief system as to its subject matter, function, and organization. If the belief system in question addresses the same subject matter, functions in the same way in the lives of its adherents, and has a similar organization, then it may also be deemed to be a religion. The first step in the analysis requires a conclusion as to the key attributes or "indicia" of traditional religions. In this respect Judge Peters concluded that recognized religions generally have the following functions, purposes, and organization:

Religion simply includes: (1) a belief, not necessarily referring to supernatural powers; (2) a cult, involving a gregarious association openly expressing the belief; (3) a system of moral practice directly resulting from an adherence to the belief; and

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155. *Id.*

156. *Id.* at 406 ("Once the validity or content of the belief is considered, the test becomes subjective and invalid.").

157. *Id.*

(4) an organization within the cult designed to observe the tenets of belief. The content of the belief is of no moment.<sup>158</sup>

A month after the publication of Judge Peters' decision, the United States Circuit Court of Appeals for the District of Columbia issued a similar holding granting a tax exemption for property used exclusively for religious purposes to a "Secular" Humanist church called the Washington Ethical Society.<sup>159</sup>

vii. 1961 – The First Amendment Does Not Permit  
Discrimination Between Theists and Non-theists: *Torcaso*  
*v. Watkins*<sup>160</sup>

In *Torcaso*, the Supreme Court addressed the same question considered by Judge Peters in *Fellowship of Humanity* in the context of an oath necessary for the holding of a public office, rather than qualification for a tax exemption. If religion is theistic only, then a law excluding an Atheist from office arguably is not one "respecting" religion. In addressing this question, the Court characterized a belief that God does not exist as religious:

We repeat and again reaffirm that neither a State nor the Federal Government can constitutionally force a person "to profess a belief or disbelief in any religion." Neither can constitutionally pass laws or impose requirements which aid all religions as against non-believers, and neither can aid those religions based on a belief in the existence of God as against *those religions founded on different beliefs*.<sup>161</sup>

Essentially, the Court recognized that belief and disbelief are functional equivalents. Hence, the State may not discriminate between the two. To ensure that there was no doubt about the broad scope of the definition of religion, Justice Black wrote in footnote eleven: "Among religions in this country which do not teach what would generally be considered a belief in the existence of God are Buddhism, Taoism, Ethical Culture, Secular Humanism and others."<sup>162</sup>

158. *Id.*

159. *Washington Ethical Soc'y v. District of Columbia*, 249 F.2d 127 (D.C. Cir. 1957).

160. *Torcaso v. Watkins*, 367 U.S. 488 (1961).

161. *Id.* at 495 (emphasis added).

162. *Id.* at 495 n.11. In that same footnote, Justice Black also referenced cases, almanacs, and other sources to support his proposition: "See *Washington Ethical Society v. District of Columbia*; *Fellowship of Humanity v. County of Alameda*; *II Encyclopaedia of the Social*

viii. 1961 - Distinguishing Between the Effects of State Action Which Harmonize with but Do Not Promote a Religious Tenet: *McGowan v. Maryland*<sup>163</sup>

*McGowan v. Maryland* involved a statute which had the effect of legislating a healthful day of rest for the culture but was also consistent with a Christian religious practice that set aside Sunday for the sacred. The question for the Court was whether the effect of a day of rest promotes a particular tenet of a religion. In addressing this question, Justice Frankfurter, in a concurring opinion upholding Sunday closing laws, focused on the essential nature of religion. In this respect he defined it broadly:

By its nature, religion—in the comprehensive sense in which the Constitution uses that word—is an aspect of human thought and action which profoundly relates the life of man to the world in which he lives. Religious beliefs pervade . . . virtually all human activity.<sup>164</sup>

He then concluded that “[t]he Establishment Clause withdrew from the sphere of legitimate legislative concern and competence a specific, but comprehensive, area of human conduct: man’s belief or *disbelief* in the verity of *some transcendental idea* and man’s expression in action of that belief or *disbelief*.”<sup>165</sup>

In sum, Frankfurter found that a required day of rest does not cause the state to take a position on how the life of man is related to the world in which it is lived.<sup>166</sup> A day off work does not guide belief or disbelief in some transcendental idea, since it favors both the atheist and the theist. The distinction is important, because the *Kitzmiller* court’s decision permits only a robust materialistic explanation that promotes disbelief in the verity of a transcendental idea.

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*Sciences*; 4 *Encyclopaedia Britannica*; Archer, *Faiths Men Live By*; 1961 *World Almanac*; [and] *Year Book of American Churches for 1961*.” *Id.* (internal information omitted).

163. *McGowan v. Maryland*, 366 U.S. 420 (1961).

164. *Id.* at 461 (Frankfurter, J., concurring) (joined by Harlan, J.).

165. *Id.* at 465-66 (emphasis added).

166. *Id.*

ix. 1965 - The Supreme Court Adopts the *Fellowship of Humanity* "Parallel Position" Test: *United States v. Seeger*<sup>167</sup>

The idea that the subject matter of religion functions to answer ultimate questions was recognized in *United States v. Seeger*. The case involved conscientious objectors who were denied exemptions from combat. The statute exempted those having "religious training and belief," which in the context of the statute meant "an individual's belief in a relation to a Supreme Being involving duties superior to those arising from any human relation, but (not including) essentially political, sociological, or philosophical views or a merely personal moral code."<sup>168</sup> The objectors were denied the exemption because none believed in a "supreme being," but all claimed to be "religious." Hence, the issue for the Court was whether "religious belief" necessitates a belief in God.

Justice Clark, writing for the majority, concluded that religious belief includes belief in a power or faith upon which all else is ultimately dependent:

Within [the phrase 'religious training and belief'] would come all sincere religious beliefs which are based upon a power or being, *or upon a faith*, to which all else is subordinate *or upon which all else is ultimately dependent*.<sup>169</sup>

The conclusion that religion deals with matters of ultimate concern may have come from the Court's study of theologian Paul Tillich. Dr. Tillich argued that religion transcends belief in God and that religion and "ultimate concern" are synonymous.<sup>170</sup> Having previously included Dr. Tillich's views among those "views that comprise the broad spectrum of religious beliefs found among us,"<sup>171</sup> Justice Clark closed the opinion for the majority, quoting with favor the Tillich view that religion involves matters of ultimate concern that may not embrace a deity:

167. *United States v. Seeger*, 380 U.S. 163 (1965).

168. *Id.* at 165.

169. *Id.* at 176 (emphasis added).

170. "Tillich defines faith, and indirectly religion, as 'ultimate concern.'" D. Mackenzie Brown, *ULTIMATE CONCERN: TILlich IN DIALOGUE, First Dialogue: Tillich's Theology* (1965). Donald Mackenzie Brown was Chairman of the Department of Religious Studies at the University of California in Santa Barbara. The online edition of the book was prepared by Harry W. and Grace C. Adams and is posted at <http://www.religion-online.org/showbook.asp?title=538>.

171. *Seeger*, 380 U.S. at 183.

And if that word [God] has not much meaning for you, translate it, and speak of the depths of your life, of the source of your being, *of your ultimate concern*, of what you take seriously without any reservation. Perhaps, in order to do so, you must forget everything traditional that you have learned about God.<sup>172</sup>

Given the conclusion that matters of ultimate concern are not limited to the theistic, Justice Clark then embraced the functional definition of religion used by Judge Peters to classify Secular Humanism as a religion in *Fellowship of Humanity*. The test used by Judge Peters was “whether or not the belief occupies the same place in the lives of its holders that the orthodox beliefs occupy in the lives of believing majorities.”<sup>173</sup> Justice Clark phrased the same test in slightly different words:

The test might be stated in these words: A sincere and meaningful belief which occupies in the life of its possessor a place parallel to that filled by the God of those admittedly qualifying for the exemption comes within the statutory definition.<sup>174</sup>

For an Atheist and “Secular” Humanist, the idea upon which all else is ultimately dependent is the faith that matter has self-organized into life. This belief relates life to the world as arising out of it, rather than being related to the world through a creator of both.

As support for the broad functional definition, Justice Clark referred to the views of a variety of non-theists as “views that comprise the broad spectrum of religious beliefs found among us,”<sup>175</sup> One included the beliefs of the founder of The Ethical Culture Movement, a non-theistic belief system that was held seven years earlier to be a religion in the case of *Washington Ethical Society of Washington DC v. District of Columbia*.<sup>176</sup>

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172. *Id.* at 187.

173. *Fellowship of Humanity v. County of Alameda*, 315 P.2d 394, 406 (Cal. Ct. App. 1957).

174. *Id.*

175. *Seeger*, 380 U.S. at 183

176. *Washington Ethical Soc’y v. District of Columbia*, 249 F.2d 127 (D.C. Cir. 1957); *see supra* Part III.B.3.c.vi. The “Secular Humanist” view quoted by the court as being included in religious belief was that of “Dr. David Saville Muzzey, a leader in the Ethical Culture Movement”:

Instead of positing a personal God, whose existence man can neither prove nor disprove, the ethical concept is founded on human experience. It is anthropocentric, not theocentric. Religion, for all the various definitions that have been given of it, must surely mean the devotion of man to the highest ideal that he can conceive. And that ideal is a community of spirits in which the latent moral potentialities of men shall have been elicited by their reciprocal

In describing the broad range of religious views in the country, Justice Clark also included reference to religious tenets contained in the Humanist Manifesto<sup>177</sup> that are italicized in the following broad description of religion included in the majority opinion:

Over 250 sects inhabit our land. Some believe in a purely personal God, some in a supernatural deity; *others think of religion as a way of life envisioning as its ultimate goal the day when all men can live together in perfect understanding and peace.* There are those who think of God as the depth of our being; others, such as the Buddhists, strive for a state of lasting rest through self-denial and inner purification; in Hindu philosophy, the Supreme Being is the transcendental reality which is truth, knowledge and bliss.<sup>178</sup>

Thus, and consistent with the views of Justice Harlan and Frankfurter expressed earlier in *Torcaso*,<sup>179</sup> *Seeger* indirectly relies on the holdings in both *Fellowship and Washington Ethical Society* that religion includes non-theistic belief systems.

- x. 1970 - Whether a Belief Is “Religious” or Not Does Not Depend on the View of Its Holder: *Welsh v. United States*<sup>180</sup>

The Supreme Court emphasized the breadth of the term “religion” in a subsequent conscientious objector case in which the objector denied that he

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endeavors to cultivate the best in their fellow men. What ultimate reality is we do not know; but we have the faith that it expresses itself in the human world as the power which inspires in men moral purpose.

*Seeger*, 380 U.S. at 183.

177. The conclusion of *Humanist Manifesto II* states:

These are the times for men and women of good will to further the building of a peaceful and prosperous world. We urge that parochial loyalties and inflexible moral and religious ideologies be transcended. We urge recognition of the common humanity of all people. We further urge the use of reason and compassion to produce the kind of world we want – a world in which peace, prosperity, freedom, and happiness are widely shared. Let us not abandon that vision in despair or cowardice. We are responsible for what we are or will be. Let us work together for a humane world by means commensurate with humane ends.

*Humanist Manifesto II*, *supra* note 97.

178. *Seeger*, 380 U.S. at 174-75 (emphasis added).

179. See *supra* Part III.B.3.c.vii.

180. *Welsh v. United States*, 398 U.S. 333 (1970).

had any religious belief.<sup>181</sup> Mr. Welsh affirmed that he held deep conscientious reservations against participating in wars where people were killed, but he did not consider them “religious.” The Court found that he was simply mistaken due to his lack of understanding of the “broad scope of the word religious”:

When a registrant states that his objections to war are ‘religious,’ that information is highly relevant to the question of the function his beliefs have in his life. *But very few registrants are fully aware of the broad scope of the word ‘religious’ as used in s 6(j), and accordingly a registrant’s statement that his beliefs are nonreligious is a highly unreliable guide for those charged with administering the exemption.*<sup>182</sup>

In his concurring opinion, Justice Harlan described the broad scope of the term religion as including not only theistic, but also non-theistic belief systems. That being the case, the act itself was a violation of the Establishment Clause because in his view the language excluded from the exemption those holding non-theistic beliefs:

The ‘radius’ of this legislation is the conscientiousness with which an individual opposes war in general, yet the statute, as I think it must be construed, excludes from its ‘scope’ individuals motivated by teachings of nontheistic religions, and individuals guided by an inner ethical voice that bespeaks secular and not “religious” reflection. It not only accords a preference to the ‘religious’ *but also disadvantages adherents of religions that do not worship a Supreme Being.*<sup>183</sup>

In a footnote in the above passage, Justice Harlan listed a variety of non-theistic religions, including “Ethical Culture, Secular Humanism and others.”<sup>184</sup>

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181. *Id.*

182. *Id.* at 341 (emphasis added).

183. *Id.* at 357.

184. *Id.* at 357 n.8.

- xi. 1969 – Religion Includes Non-theistic Scientology and Wicca: *Founding Church of Scientology v. United States*<sup>185</sup> and *Dettmer v. Landon*<sup>186</sup>

*Church of Scientology* involved a seizure by the FDA of literature and instruments of the Church claimed by the FDA to violate laws regarding the false and misleading labeling of products. The church claimed that the products involved religious materials and that the seizure was a violation of the Free Exercise rights of the church.<sup>187</sup> The Circuit Court of Appeals for the District of Columbia reversed a lower court judgment in favor of the FDA on the grounds that Scientology was a religion and the materials in question were religious in nature.<sup>188</sup>

The Church of Scientology was founded on the basis of the writings of L. Ron Hubbard. In the early 1950s, Hubbard wrote tracts elucidating what he called “dianetics.”<sup>189</sup> Dianetics is a theory of the mind that sets out many of the therapeutic techniques now used by Scientologists. Judge Wright described Scientology as kin to theories “espoused by Eastern religions, especially Hinduism and Buddhism.”<sup>190</sup>

Although the government did not contest the claim of the church that Scientology was a religion, the court found it necessary to rule on that issue. Based on the evidence presented by the Church, the court concluded that it was a religion and that “[t]he fact that it postulates no deity in the conventional sense does not preclude its status as a religion.”<sup>191</sup> The Ninth Circuit also recognized Scientology as a religion but nevertheless denied tax-exempt status to the Church of Scientology, due to the failure of the organization to meet operational tests regarding the inurement of Church revenues to private individuals.<sup>192</sup> In *Dettmer v. Landon*, the Fourth Circuit Court of Appeals held Wicca to be a religion.<sup>193</sup>

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185. *Founding Church of Scientology v. United States*, 409 F.2d 1146 (D.C. Cir. 1969).

186. *Dettmer v. Landon*, 799 F.2d 929 (4th Cir. 1986).

187. *Founding Church of Scientology*, 409 F.2d at 1148.

188. *Id.* at 1162.

189. *Id.* at 1151.

190. *Id.* at 1152.

191. *Id.* at 1160 (emphasis added).

192. *Church of Scientology of Cal. v. CIR*, 823 F.2d 1310 (9th Cir. 1987).

193. *Dettmer v. Landon*, 799 F.2d 929, 932 (4th Cir. 1986).



xii. 1979 – Public Schools May Not Promote Non-theistic Religions: *Malnak v. Yogi*<sup>194</sup>

Ten years after *Welsh*, the parameters of the word “religion” were described with great precision and logic by Judge Adams in two back-to-back Third Circuit cases decided in 1979 and 1981, respectively: *Malnak v. Yogi* and *Africa v. Pennsylvania*.<sup>195</sup> In *Malnak*, Judge Adams found in his lengthy concurring opinion that the teaching of the “science of creative intelligence and transcendental meditation” (SCI/TM) in public schools promoted a religion, because it was a non-theistic belief system that “concerns itself with the same search for ultimate truth as other religions and seeks to offer a comprehensive and critically important answer to the questions and doubts that haunt modern man.”<sup>196</sup> Two years later, in *Africa*, Judge Adams applied the same analysis to an ad hoc pseudo-religion developed by a handful of prisoners around natural or organic foods.<sup>197</sup> Teaching students the mind-cleansing of TM was religious, but prisoners’ desired natural diet regime was not. The cases are significant because Judge Adams used and refined the criteria developed by Judge Peters in *Fellowship of Humanity* to identify religious subject matter.<sup>198</sup>

In *Malnak*, the course in TM was offered as an elective at area high schools during the 1975-76 academic year; the course was taught by teachers specially trained by the World Plan Executive Council United States, “an organization whose objective [was] to disseminate the teachings of SCI/TM [the Science of Creative Intelligence and Transcendental Meditation] throughout the United States.”<sup>199</sup> The textbook was developed by Maharishi Mahesh Yogi, the founder of SCI, and “[taught] that ‘pure creative intelligence’ is the basis of life, and that through the process of Transcendental Meditation students [could] perceive the full potential of their lives.”<sup>200</sup> The district court determined, and the Third Circuit agreed, that “the SCI/TM course [had] a primary effect of advancing religion and religious concepts, . . . and that the government aid given to teach the course and the use of public school facilities constituted excessive governmental entanglement with religion.”<sup>201</sup>

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194. *Malnak v. Yogi*, 592 F.2d 197 (3d Cir. 1979) (per curiam).

195. *Africa v. Pennsylvania*, 662 F.2d 1025 (3d Cir. 1981).

196. *Malnak*, 592 F.2d at 214.

197. *Africa*, 662 F.2d at 1025-26.

198. See *supra* Part III.B.3.c.vi.

199. *Malnak*, 592 F.2d at 198.

200. *Id.*

201. *Id.* at 199 (citations omitted).

Judge Adams wrote a concurring opinion because he viewed the case as involving a “newer, more expansive reading of ‘religion’ that has been developed in the last two decades in the context of free exercise and selective service cases but not, until today, applied by an appellate court to invalidate a government program under the establishment clause.”<sup>202</sup> Adams noted that the definition of religion prevalent in the early history of the country was grounded upon a theistic perception of religion. However, because SCI/TM did not appear to fixate on a “Supreme Being,” he concluded that it could not be considered a religion under the traditional theistic formulation of that term.<sup>203</sup> Thus, according to Judge Adams, “the important question presented by the present litigation is how far the constitutional definition of religion extends beyond the Theistic formulation.”<sup>204</sup>

In reviewing the decisions of the Supreme Court on conscientious objectors in *Seeger* and *Welsh*, Judge Adams noted that:

the Court concluded that “religious training and belief” encompass non-theist faiths provided that they are “sincere religious beliefs which (are) based upon a power or being, *or upon a faith*, to which all else is subordinate or upon which all else is ultimately dependent. . . . Seeger had declared his faith to be a ‘belief in and devotion to goodness and virtue for their own sakes, and a religious faith in a purely ethical creed.’”<sup>205</sup>

Another conscientious objector in *Seeger* had views that were deemed religious, but were pantheistic in nature.<sup>206</sup> Judge Adams noted in particular that “Justice Harlan explicitly recognized as ‘religions’ various non-Theistic belief systems.”<sup>207</sup> Judge Adams concluded:

It seems unavoidable, from *Seeger*, *Welsh*, and *Torcaso*, that the Theistic formulation presumed to be applicable in the late nineteenth century cases is no longer sustainable. Under the modern view, “religion” is not confined to the relationship of man with his Creator, either as a matter of law or as a matter of theology. Even theologians of traditionally recognized faiths have moved away from a strictly Theistic approach in explaining their own religions. Such movement, when coupled with the

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202. *Id.* at 200.

203. *Id.* at 201.

204. *Id.* at 203.

205. *Id.* at 204 & n.19 (emphasis added).

206. *Id.* at 204 n.19.

207. *Id.* at 205.

growth in the United States, of many Eastern and *non-traditional belief systems*, suggests that the older, limited definition would deny “religious” identification to faiths now adhered to by millions of Americans. The Court’s more recent cases reject such a result.<sup>208</sup>

According to Judge Adams, “[t]he modern approach thus looks to the familiar religions as models in order to ascertain, by comparison, whether the new set of ideas or beliefs is confronting the same concerns, or serving the same purposes, as unquestioned and accepted ‘religions.’”<sup>209</sup> He then identified three indicia basic to traditional religion and the First Amendment concept of religion, with

*[t]he first and most important of these indicia [being] the nature of the ideas in question. This means that a court must, at least to a degree, examine the content of the supposed religion, not to determine its truth or falsity, or whether it is schismatic or orthodox, but to determine whether the subject matter it comprehends is consistent with the assertion that it is, or is not, a religion.*<sup>210</sup>

Judge Adams discussed the indicia in great detail in his *Malnak* concurrence as well as in his subsequent opinion in *Africa*. In *Africa*, he reduced all three into the following descriptive test:

In the *Malnak* opinion, which explicitly adopted the “definition by analogy” process, three “useful indicia” to determine the existence of a religion were identified and discussed. *First*, a religion addresses *fundamental and ultimate questions* having to do with deep and imponderable matters. *Second*, a religion is comprehensive in nature; it consists of a belief-system as opposed to an isolated teaching. *Third*, a religion often can be recognized by the presence of certain formal and external signs.<sup>211</sup>

Judge Adams explained that when an idea is part of a religion, it may still be taught if it is taught objectively:

*Religious observation and instruction in public schools may be sustainable if ideas are taught in an objective fashion, or if the*

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208. *Id.* at 207 (emphasis added).

209. *Id.*

210. *Id.* at 207-08.

211. *Africa v. Pennsylvania*, 662 F.2d 1025, 1032 (3d Cir. 1981) (emphasis added).

*overall impact of the religious observance is De minimis.* Neither was true here. Once SCI/TM is found to be a religion, the establishment resulting from direct government support of that religion through the propagation of its religious ideas in the public school system is clear.<sup>212</sup>

Judge Adams' distinction between an objective presentation of isolated teachings that might address an ultimate question and a dogmatic indoctrination of the key tenet of a comprehensive belief system is key to the decision in *Kitzmiller*. As discussed in Part VIII, the ID Policy actually caused the religiously-charged ultimate question of origins to be taught objectively, while the religious orthodoxy of methodological naturalism—key to non-theistic religion—was enshrined by the *Kitzmiller* court's injunction against that objective model.

Judge Adams also noted that whether a particular activity is or is not religious does not depend on how advocates of the activity treat it. In some cases, advocates wish to exclude it from the category of religion so that it may be included in the public school curricula:

Appellants have urged that they do not consider SCI/TM to be a religion. But the question of the definition of religion for first amendment purposes is one for the courts, and is not controlled by the subjective perceptions of believers. Supporters of new belief systems may not “choose” to be non-religious, particularly in the establishment clause context. . . . There is some indication that SCI/TM has attempted a transformation from a religion to a secular science in order to gain access to the public schools.<sup>213</sup>

As discussed later, those promoting “Secular” Humanism have also sought to deny its religious nature so that its tenets may be taught in public education. Indeed, it appears that they have taken a religious orthodoxy, naturalism/materialism, and cloaked it in a white lab-coat as a scientific method that requires acceptance.

In conclusion, Judge Adams applied the three indicia to the Science of Creative Intelligence and found it to be a religion. It “provides answers to questions concerning the nature both of world and man, the underlying sustaining force of the universe, and the way to unlimited happiness. . . . When the government seeks to encourage this version of ultimate truth, and not others, an establishment clause problem arises.”<sup>214</sup>

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212. *Malnak*, 592 F.2d at 215 (emphasis added).

213. *Id.* at 210 n.45.

214. *Id.* at 213-14.

xiii. 1983 – Second and Tenth Circuits Embrace a Broad Definition of Religion: *United States v. Sun Myung Moon*,<sup>215</sup> *Patrick v. LeFevre*,<sup>216</sup> and *United States v. Meyers*<sup>217</sup>

In *Moon*, the Second Circuit recognized that “there are religions which do not positively require the assumption of a God, for example, Buddhism and the Unitarian Church.”<sup>218</sup> Given that conclusion, the court in *Patrick* embraced a broad definition of religion as expressed by Willam James: “the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the divine.”<sup>219</sup> The court also used James’ terminology to define the word “divine” in its broadest sense, “as denoting any object that is godlike, whether it is or is not a specific deity.”<sup>220</sup>

In *Meyers*, the Tenth Circuit adopted a very broad definition of religion, using a parallel position test and a set of indicia that would include non-theistic religions like “Secular” Humanism.<sup>221</sup> A number of other Tenth Circuit cases have recognized atheistic and agnostic beliefs as religious.<sup>222</sup>

215. *United States v. Sun Myung Moon*, 718 F.2d 1210 (2d Cir. 1983).

216. *Patrick v. Lefevre*, 745 F.2d 153 (2d Cir. 1984).

217. *United States v. Meyers*, 95 F.3d 1475 (10th Cir. 1996).

218. *Moon*, 718 F.2d at 1227.

219. *Patrick*, 745 F.2d at 158 (quoting *Moon*, 718 F.2d at 1227).

220. *Moon*, 718 F.2d at 1227.

221. *See Meyers*, 95 F.3d 1475 (10th Cir. 1996). The set of indicia is as follows:

5. *Accountrements of Religion*: By analogy to many of the established or recognized religions, the presence of the following external signs may indicate that a particular set of beliefs is “religious”:
  - a. *Founder, Prophet, or Teacher* . . .
  - b. *Important Writings*: Most religions embrace seminal, elemental, fundamental, or sacred writings. These writings often include creeds, tenets, [or] precepts, . . .
  - c. *Gathering Places*. . .
  - d. *Keepers of Knowledge*: Most religions have . . . ministers, . . . teachers, or sages. . .
  - f. *Structure or Organization*: Many religions have a congregation or group of believers who are led, supervised, or counseled by a hierarchy of teachers. . .
  - g. *Holidays*: As is etymologically evident, many religions celebrate, observe, or mark “holy,” sacred, or important days. . .
  - j. *Propagation*: Most religious groups, thinking that they have something worthwhile or essential to offer non-believers, attempt to propagate their views and persuade others of their correctness. . .

*Id.* at 1483-84.

222. *See Wells v. City and County of Denver*, 257 F.3d 1132, 1137, 1152 (10th Cir. 2001) (the claim of an Atheist that “*There are no gods. . . There is only our natural world*” was assumed to be a religious belief that conferred Article III standing); *Snyder v. Murray City Corp.*, 124 F.3d 1349, 1353 (10th Cir. 1997) (assuming an agnostic had religious beliefs that gave him standing to object to a denial of his request to read a message supportive of his agnosticism and offensive to traditional religious beliefs); *Otero v. State Election Bd. of*

xiv. 1987 – A Detailed Analysis of the Religion Designed To  
Be Used in Public Schools: *Smith v. Board of School  
Commissioners of Mobile County (Smith I)*<sup>223</sup>

In *Smith I*, the plaintiffs alleged that certain history and home economics textbooks promoted the religion of “Secular” Humanism. The case is important because Judge Hand’s detailed opinion contains a thorough analysis of the nature of religion, the First Amendment meaning of religion and, in particular, the history, tenets, and operation of the religion of “Secular” Humanism.<sup>224</sup> Other courts had previously held that “Secular” Humanism is a religion, but none had engaged in an analysis as comprehensive and logically persuasive. Although Judge Hand’s decision regarding the unconstitutionality of the textbooks was reversed by the Eleventh Circuit,<sup>225</sup> the reversal did not question his conclusions regarding the history, tenets, and religious nature of “Secular” Humanism. Rather, the reversal was based on a subjective factual disagreement that, within the “context of the books as a whole and the undisputedly nonreligious purpose sought to be achieved by their use,” the textbooks did not actually convey a message of endorsement of “Secular” Humanism.<sup>226</sup>

Judge Hand’s analysis of the First Amendment definition of religion is consistent with Judge Adams’ analysis in *Malnak*. Judge Hand also made a strong argument that because the courts are not permitted to judge the validity of any particular religious belief, a functional rather than a content-based definition is essential. If religion is identified with a particular content, such as belief in God or a particular kind of God, then discrimination will result with respect to equivalent beliefs having a different content, such as disbelief in God.<sup>227</sup> He then found that all religions

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Okla., 975 F.2d 738, 740 (10th Cir. 1992) (assuming an Atheist had religious beliefs that gave him standing to complain about the location of voting booths in churches).

223. *Smith v. Bd. of Sch. Comm’rs of Mobile County (Smith I)*, 655 F. Supp. 939 (S.D. Ala. 1987), *rev’d on other grounds*, 827 F.2d 684 (11th Cir. 1987).

224. The author of an excellent article on the definition of religion characterizes the decisions similarly. See Jeffrey L. Oldham, *Constitutional “Religion”: A Survey of First Amendment Definitions of Religion*, 6 TEX. F. ON C.L. & C.R. 117, 147-48 (2001).

225. *Smith v. Bd. of Sch. Comm’rs of Mobile County (Smith II)*, 827 F.2d 684 (11th Cir. 1987).

226. *Id.* at 692.

227. See *Smith I*, 655 F. Supp. at 978 (“The state must instead look to factors common to all religious movements to decide how to distinguish those ideologies worthy of the protection of the religion clauses from those which must seek refuge under other constitutional provisions. . . . Any definition of religion must not be limited, therefore, to

may be classified by the questions they raise and issues they address. Some of these matters overlap with non-religious governmental concerns. A religion, however, approaches them on the basis of *certain fundamental assumptions* with which governments are unconcerned. These assumptions may be grouped as *about* [rather than “as in”]:

- 1) the existence of supernatural and/or transcendent reality;
- 2) the nature of man;
- 3) the ultimate end, or goal or purpose of man’s existence, both individually and collectively;
- 4) the purpose and nature of the universe.”<sup>228</sup>

Notice that this definition of religion is consistent with the concise, first-listed definition of religion found in a popular dictionary: “religion: 1. a set of beliefs concerning the cause, nature, and purpose of the universe. . . .”<sup>229</sup> Implied within this definition is a set of beliefs about the cause, nature and purpose of *life*. Thus Judge Hand concluded, as did Justice Frankfurter in *McGowan v. Maryland*, that “[w]henver a belief system deals with fundamental questions of the nature of reality and man’s relationship to reality, it deals with essentially religious questions.”<sup>230</sup> Indeed, as Judge Hand further explained, “[a] religion need not posit a belief *in* a deity, or a belief *in* supernatural existence. A religious person adheres to some position on whether supernatural and/or transcendent reality exists at all, and if so, how, and if not, why.”<sup>231</sup>

The importance of these criteria to *Kitzmiller* is that methodological naturalism, which was embraced by Judge Jones as the underpinning for his rejection of intelligent design, is a fundamental and apparently irrefutable assumption that addresses each of the key criteria important to all religions. It holds that biology teachers must assume that there are no supernatural

traditional religions, but must encompass systems of belief that are equivalent to them for the believer.”).

228. *Id.* at 979 (emphasis added).

229. RANDOM HOUSE WEBSTER’S UNABRIDGED DICTIONARY (1999) (“religion: 1. a set of beliefs concerning the cause, nature, and purpose of the universe, esp. when considered as the creation of a superhuman agency or agencies, usually involving devotional and ritual observances, and often containing a moral code governing the conduct of human affairs. 2. a specific fundamental set of beliefs and practices generally agreed upon by a number of persons or sects: *the Christian religion; the Buddhist religion*. . . . 6. something one believes in and follows devotedly; a point or matter of ethics or conscience: *to make a religion of fighting prejudice*.”) (emphasis added).

230. *Smith I*, 655 F. Supp. at 979.

231. *Id.*

causes under Item 1. They must also assume that the nature of man is that of an occurrence, not a design or creation, that arises from a series of natural causes via the evolutionary process (Item 2), and that the universe itself is the product of natural causes (Item 3).

Judge Hand also indicated that fundamental assumptions used by a religion may be implied from other assumptions.<sup>232</sup> In this respect, as the universe and life arise only from material or natural causes, that implies they can have no purpose, issues addressed by Items 3 and 4. That conclusion is implicit from the fact that material causes, lacking a mind, lack the capacity to produce objectively real purpose. Thus, methodological naturalism explicitly states or at least logically implies irrefutable assumptions as to each and every one of the criteria listed by the court in *Smith I*.

In labeling the belief system being examined, Judge Hand noted that it had been given many different names by the variety of experts who testified. These included "humanism" or "secular humanism," "atheistic humanism," "naturalistic humanism," "religious humanism," and "non-theistic humanism."<sup>233</sup> As explained in *Humanist Manifesto II*, the belief system is essentially an atheistic religion:<sup>234</sup> "As nontheists, we begin with humans not God, nature not deity. Nature may indeed be broader and deeper than we now know; any new discoveries, however, will but enlarge our knowledge of the *natural*."<sup>235</sup> Edwin H. Wilson, a co-author of the first Manifesto, which was published in 1933, explained it this way:

The 1933 manifesto issued a challenge in the name of naturalism to the supernaturalists *whose beliefs were based upon revelation rather than reason and science*. It was a bold move to them publicly that their religious views were out of date and that the time had come for a new faith and a new religion. Such a challenge is just as appropriate today in view of the influence of the radical religious right.<sup>236</sup>

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232. *See id.* ("In some systems these assumptions can be implied from less fundamental beliefs; in others they are stated outright.")

233. *Id.* at 980.

234. *See* discussion *supra* on "Secular" Humanism, Part III.A.

235. *Humanist Manifesto II* (1973), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanism/Humanist\\_Manifesto\\_II](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_II).

236. EDWIN H. WILSON, *THE GENESIS OF A HUMANIST MANIFESTO 2* (Teresa Maciocha ed., 1995) (emphasis added).



Thus, it is a religion that worships nature rather than a creator of nature.<sup>237</sup> Its history indicates that the word secular had been associated with it to distinguish it from other forms of humanism that were Christian or did not reject the supernatural.<sup>238</sup> One cannot read *Manifesto I* or *Manifesto II* without recognizing the belief system as a religion, particularly because it claims to be so. Based on those documents and extensive testimony, the court found “Secular” Humanism to be a religion. First, it noted that:

All of the experts, and the class representatives, agreed that this belief system is a religion which: makes a statement about supernatural existence a central pillar of its logic; defines the nature of man; sets forth a goal or purpose for individual and collective existence; and defines the nature of the universe, and thereby delimits its purpose.

. . . .

In addition, humanism, as a belief system, erects a moral code and identifies the source of morality. This source is claimed to exist in humans and the social relationships of humans. . . . In addition to a moral code, certain attitudes and conduct are proscribed since they interfere with personal freedom and fulfillment. In particular any belief in a deity or adherence to a religious system that is theistic in any way is discouraged.<sup>239</sup>

The court also found that the religion is propagated by institutions<sup>240</sup> and churches. However, it is also designed to be a religion that actually permeates the entire public sector, particularly in the public schools.<sup>241</sup> Its Manifestos and actual conduct express outright hostility to traditional theistic religions.<sup>242</sup> The court noted that, according to the author of *Manifesto II*, it is a belief system held by a “vast number of nominal

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237. In contrasting theistic and non-theistic religions, the Apostle Paul noted this critical difference in religion in verse twenty-five of Chapter One of his letter to the Romans: “They exchanged the truth of God for a lie, and worshiped and served created things rather than the Creator. . . .” *Romans* 1:25 (New International Version).

238. See *Smith I*, 655 F. Supp. at 961.

239. *Id.* at 980-81.

240. *Id.* at 981.

241. See generally *id.* at 956-58.

242. See *id.* at 982 (“For first amendment purposes, the commitment of humanists to a non-supernatural and non-transcendent analysis, even to the point of hostility towards and outright attacks on all theistic religions, prevents them from maintaining the fiction that this is a non-religious discipline.”).

humanists in the United States and the world, and in this broad sense humanism is a dominant, moral and religious point of view in the scientific age among intellectuals and educated classes, though they may not be aware of the fact that they are humanist.”<sup>243</sup>

The court also concluded that the denials and intellectual “flip flops” of some of its adherents<sup>244</sup> about its status as a religion were motivated by a desire to insert its tenets into the public school system.<sup>245</sup> As previously mentioned, Judge Adams reached the same conclusion with respect to the religion calling itself the “Science of Creative Intelligence.”<sup>246</sup> The noted author, political theorist, and former Atheist, J. Budziszewski, drew the same conclusion simply from reading and comparing the three Manifestos: “These flaccid committee products make a dull read, but a fascinating comparison: they show how an antireligious worldview became an unofficially established religion but had to stop calling itself a religion to finish the job.”<sup>247</sup>

Dr. Paul Kurtz, the author of *Manifesto II*,<sup>248</sup> testified in *Smith I* that “Secular” Humanism was not a religion after previously writing that it was in 1968.<sup>249</sup> His response to what it was (if it was not a religion) is critical to the decision in *Kitzmiller*:

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243. *Id.* at 969-70.

244. These adherents include Dr. Paul Kurtz. *See id.* at 970 (“There are many other instances of contradictory statements of this nature throughout the testimony of Dr. Kurtz for which he gives the explanation that his philosophy has grown and changed through the passage of time and what he believed at one time he no longer believes.”).

245. *See id.* at 958 (“Also, [an expert witness] commented on reflections by R.S. Peters, a noted British philosopher of education. Peters observed that the American system is that we do not teach religion in public schools, yet we teach Dewey’s philosophy, and that is a religion. As to the colleges of education, this is reflected by the high regard that Dr. Halpin and others have for Maslow, Rogers, et al. These theorists are direct in the line of descent from John Dewey, particularly in the rejection of the need for the supernatural. Children who have been raised and educated in the schools over the last twenty years or so are in special jeopardy because this relativism which has been espoused has become the church of the public school. . . .”).

246. *See* discussion of the *Malnak* case *infra*, Part III.B.3.c.xii.

247. J. Budziszewski, *The Humanist Manifestos (1933, 1973, 1999)*, FIRST THINGS: MONTHLY J. RELIGION & PUB. LIFE, Mar. 1, 2000, at 42, available at 2000 WLNR 6752920.

248. The Manifesto’s language clearly identifies the Manifesto as a religious alternative to traditional theistic religion. *Humanist Manifesto II*, *supra* note 235.

249. *See Smith I*, 655 F. Supp. at 970 (“Dr. Kurtz republished in 1983 an article that he had published in 1968 for the *Religious Humanist* magazine which stated[,] ‘Yet it is well known that restraining the definition of religion to belief in God leaves out many important religions such as Buddhism, where western notions of a god head are not present. The theist has tried to impose a narrow definition in order to corner the term religion. What is common

Dr. Paul Kurtz testified that secular humanism is a scientific methodology, not a religious movement. . . . Dr. Kurtz's attempt to revise history to comply with his personal beliefs is of no concern to this Court. . . . For first amendment purposes, the commitment of humanists to a non-supernatural and non-transcendent analysis, even to the point of hostility towards and outright attacks on all theistic religions, prevents them from maintaining the fiction that this is a non-religious discipline. This Court is concerned with the logic and consistency, the rationality, one might say, of Dr. Kurtz's contention that secular humanism is not a religious system, but science. Secular humanism is religious for first amendment purposes because it makes statements based on faith-assumptions.<sup>250</sup>

The importance of the testimony of Kurtz is that it constitutes an acknowledgement that a belief system held to be a religion has been embraced by science. Therefore, science that embraces that belief system via its dogmatic form of "methodological naturalism/scientific materialism" effectively promotes that religion and, therefore, becomes a religious, rather than a truly scientific, enterprise. "Secular" Humanism "is not a mere scientific methodology that may be promoted and advanced in the public schools."<sup>251</sup>

After finding that "Secular" Humanism was a religion, the court then held that forty-four history, home economics, and social studies books promoted that religion. Although *Smith I* leads to a compelling conclusion that "Secular" Humanism is a religion, its conclusions that the books in question promoted that religion is far less compelling. None of the books were science or biology books that incorporated methodological naturalism or scientific materialism. Rather, the case against the books was based largely on omissions. History and social studies books were found to promote the religion because they "omitted certain historical events with religious significance and 'uniformly ignore the religious aspect of most American culture.'"<sup>252</sup> The home economics books were found to imply

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to all religions is not the content of the religious beliefs or their truth claims, but their functions."").

250. *Id.* at 982 (emphasis added).

251. *Id.* at 982-83.

252. *Smith II*, 827 F.2d 684, 693 (11th Cir. 1987) ("We do not believe that an objective observer could conclude from the mere omission of certain historical facts regarding religion or the absence of a more thorough discussion of its place in modern American society that the State of Alabama was conveying a message of approval of the religion of secular humanism.").

that students should rely on human reason to determine their values (a "Secular" Humanistic view) without mentioning that one's values could also be based on those established by another religion.<sup>253</sup> The difficulty is that the books did not explicitly state that message, and could easily be viewed as merely teaching "independent thought, tolerance of diverse views, self-respect, maturity, self-reliance and logical decision-making."<sup>254</sup> Accordingly, "in the context of the books as a whole and the undisputedly nonreligious purpose sought to be achieved by their use,"<sup>255</sup> the Eleventh Circuit found that the message conveyed by the books as a whole was not one of endorsement of "Secular" Humanism. Merely because passages in a book may harmonize with a religious view does not render those passages unconstitutional.<sup>256</sup>

In conclusion, the case was reversed because the plaintiffs failed to show a sufficient religious effect from the books. The books omitted material relevant to theism and promoted material that harmonized with the tenets of "Secular" Humanism, but the Court found that the promotion of "Secular" Humanism was not the primary effect of the books as a whole.

xv. 1992 – Either Belief or Disbelief in God Is an  
Impermissible Religious Orthodoxy: *Lee v. Weisman*<sup>257</sup>

In *Lee*, the Supreme Court struck down a "non-sectarian prayer" delivered at the beginning of a high school graduation exercise.<sup>258</sup> The prayer was defended on the ground that a non-preferential prayer to an unnamed and unidentified god does not prefer one religion over another. Hence, it does not cause the government to establish a religion. This argument implicitly limits religion to only those who believe in some kind of a god. The problem is that, as explained by Justices Souter, Stevens, and O'Connor in a concurring opinion, there are religions that reject the idea of God:

Many Americans who consider themselves religious are not theistic; some, like several of the Framers, are deists who would question Rabbi Gutterman's plea for divine advancement of the country's political and moral good. Thus, a nonpreferentialist

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253. See *Smith I*, 655 F. Supp. at 986-87.

254. *Smith II*, 827 F.2d at 692.

255. *Id.*

256. See *id.* at 691 ("[T]he Establishment Clause does not ban federal or state regulation of conduct whose reason or effect merely happens to coincide or harmonize with the tenets of some or all religions.") (quoting *McGowan v. Maryland*, 366 U.S. 420, 442 (1961)).

257. *Lee v. Weisman*, 505 U.S. 577 (1992).

258. *Id.*

who would condemn subjecting public school graduates to, say, the Anglican liturgy would still need to explain why the government's preference for theistic over *nontheistic religion* is constitutional.<sup>259</sup>

According to Souter, Stevens, and O'Connor, the "settled law" is that the "Clause applies 'to each of us, be he Jew or Agnostic, Christian or Atheist, Buddhist or Freethinker.'"<sup>260</sup> Justice Kennedy, writing for the majority, noted that a prayer to God reflects a preference that when embraced by the state amounts to the establishment of an impermissible<sup>261</sup> "religious orthodoxy."<sup>262</sup> Similarly, it would seem that a governmental prayer or appeal for the audience to place their faith in natural rather than supernatural causes would also reflect a preference for "nontheistic religion" over theistic religion that would amount to the establishment of a religious orthodoxy.

xvi. 2005 – Atheism Is a Religion: *Kaufman v. McCaughtry*<sup>263</sup>

*Kaufman* involved a prisoner who sought to establish a club or church of Atheists in a prison under guidelines that permitted religious groups.<sup>264</sup> His request was denied on the grounds that Atheism was not deemed to be a religion. The court found that although Kaufman's Free Exercise rights had not been violated, a definition of religion that excluded Atheism was inconsistent with the meaning of that term in the Establishment Clause:

Atheism is, among other things, a school of thought that takes a position on religion, the existence and importance of a supreme being, and a code of ethics. As such, we are satisfied that it qualifies as Kaufman's religion for purposes of the First Amendment claims he is attempting to raise.

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259. *Id.* at 617 (emphasis added).

260. *Id.* at 611 (quoting Justice Potter Stewart *in Sch. Dist. of Abington Twp. v. Schempp*, 374 U.S. 203, 319-20 (1963) (Stewart, J., dissenting)).

261. *See id.* at 592 ("A state-created orthodoxy puts at grave risk that freedom of belief and conscience which are the sole assurance that religious faith is real, not imposed.").

262. *See id.* ("What to most believers may seem nothing more than a reasonable request that the nonbeliever respect their religious practices, in a school context may appear to the nonbeliever or dissenter to be an attempt to employ the machinery of the State to enforce a religious orthodoxy.").

263. *Kaufman v. McCaughtry*, 419 F.3d 678 (7th Cir. 2005).

264. *Id.* at 681.

. . . Atheism is Kaufman's religion, and the group that he wanted to start was religious in nature even though it expressly rejects a belief in a supreme being. As he explained in his application, the group wanted to study freedom of thought, religious beliefs, creeds, dogmas, tenets, rituals, and practices, all presumably from an atheistic perspective.<sup>265</sup>

#### xvii. 2008 – Enforcement of Title VII of the Civil Rights Act Defines Religion Functionally

The Civil Rights Act of 1964<sup>266</sup> proscribes certain religious discrimination in the work place. Section Twelve of the *Compliance Manual*, adopted July 22, 2008 by the Equal Employment Opportunity Commission as a resource for enforcement staff, defines religion as being concerned with “‘ultimate ideas’ about ‘life, purpose, and death,’” and as including traditional religions, Atheism and other “religious beliefs that are new, uncommon, [and] not part of a formal church or sect,” citing many of the cases discussed previously.<sup>267</sup>

#### C. Summary of the Cases

##### 1. Religion Includes Disbelief with Separation To Be Achieved Through Neutrality Rather Than Exclusion

The foregoing chronological discussion of cases shows that “religion” as used in the First Amendment is a functional concept that includes non-theistic beliefs such as those held by “Secular” Humanists and Atheists. Thus, a belief that life arises from natural rather than supernatural causes is religious. In *Everson*, the Court made clear that government is to separate itself from religion through policies of neutrality rather than exclusion.<sup>268</sup>

##### 2. Religions Address Ultimate Questions, with the Origin of Life Being the Ultimate Question

Judge Peters in *Fellowship*, Judge Adams in *Malnak* and *Africa*, Justice Clark in *Seeger*, and Judge Hand in *Smith I* have all made clear that religions address ultimate questions that relate life to the world in which it is lived. The ultimate of all the ultimate questions is: *What is the cause of life?* Typically the question is phrased as *Where do we come from?*

265. *Id.* at 682, 684.

266. 42 U.S.C. § 2000e-2 (2000).

267. EQUAL EMP. OPPORTUNITY COMM'N, COMPLIANCE MANUAL § 12-1.A.1, Jul. 22, 2008, available at [http://www.eeoc.gov/policy/docs/religion.html#\\_ftnref211](http://www.eeoc.gov/policy/docs/religion.html#_ftnref211).

268. See *supra* Part III.B.3.c.iv.

Traditional theistic religions relate life to the world through a creator, claiming that life arises from a guided process. Materialistic non-theistic religions relate life just to matter, claiming that it arises from materials and forms of the past through an *unguided* process.

In *Smith I*, Judge Hand elucidated these “ultimate concerns” with clarity. He found that a religion approaches its views about how life should be lived

on the basis of *certain fundamental assumptions* with which governments are unconcerned. These assumptions may be grouped as about 1) the existence of supernatural and/or transcendent reality; 2) the nature of man; 3) the ultimate end, or goal or purpose of man’s existence, both individually and collectively; [and] 4) the purpose and nature of the universe.<sup>269</sup>

Recent research by two experts in psychology and behavioral science confirm that explanations about origins amount to “ultimate explanations” that trigger subconscious religious responses.<sup>270</sup> They provided 126 subjects with a strong or a weak natural cause or “scientific” explanation of the origin of the universe and of life. These “ultimate explanations” were followed by a series of rapid response questions that indicated the subconscious effect of the explanation on the subject’s belief or disbelief in God. They concluded, as one might expect, that the strong explanation caused an “automatic” or subconscious negative “evaluation” of God and a positive evaluation of “science” or no God,<sup>271</sup> while the weak explanation “automatically” produced the opposite effect.

### 3. The Purpose of Life Is Inseparable from the Question of Its Origin

Cardinal Schönborn is correct. The differing views about the origin of life spawn very different views about how life should be lived. In *Fellowship of Humanity*, Judge Peters recognized that religions tie the purpose of life to a core belief about, but not in, the supernatural.<sup>272</sup> Traditional theists hold significantly different views than Atheists and

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269. *Smith v. Bd. of Sch. Comm’rs of Mobile County (Smith I)*, 655 F. Supp. 939, 979 (S.D. Ala. 1987), *rev’d on other grounds*, 827 F.2d 684 (11th Cir. 1987) (emphasis added).

270. *Preston & Epley*, *supra* note 21.

271. *Id.* The paper is interesting because Preston and Epley used the narrow and popular definition of religion in describing their results. Thus, the paper describes a competition between “science and religion” that is actually a competition between two different religious views concerning the cause of life and the universe.

272. *Fellowship of Humanity v. County of Alameda*, 315 P.2d 394, 406 (Cal. Ct. App. 1957) (“Religion simply includes: (1) a belief, not necessarily referring to supernatural powers; . . . [and] (3) a system of moral practice directly resulting from an adherence to the belief.”).

“Secular” Humanists on subjects such as sanctity of life, human autonomy, marriage, sex, morals, ethics, politics, and even government. “Secular” Humanists and many Atheists today urge a nearly complete replacement of traditional theistic values. Thus, in the present culture, a fierce competition is in fact being waged between traditional theists whose worldviews derive from revelation, religious wisdom, science, and reason, and those supporting a “Secular” Humanist perspective that excludes revelation and religious wisdom tested by thousands of years of human experience.

#### 4. A Functional Definition Is Necessary To Ensure That Government Does Not Discriminate Between Religions

The functional definition of religion is actually necessary to ensure that government does not discriminate in favor of or against any particular religious view. If a narrow discriminatory definition is used, government will necessarily discriminate between functionally equivalent religious views by subjecting only one of the competing viewpoints to the burdens of the Establishment Clause and benefits of the Free Exercise Clause.

#### 5. Because Government May Not Take Sides in the Religious Competition, It May Not Pass on the Validity of Religious Claims

Not only have the courts recognized the need for a functional definition of religion, but they have also recognized they may not judge the validity of any religious belief or claim. If government may decide which religious claim is valid, then government may limit the freedom of conscience to believe to the contrary.

### IV. THE MEANING OF “SECULAR” DEPENDS ON THE MEANING OF “RELIGION”

A secular activity or concept is one that is not religious.<sup>273</sup> As explained by Judge Jones, it is one that does not favor or prefer “a particular religious belief.”<sup>274</sup> The National Assessment Governing Board, which develops and administers the national assessment of educational progress, interprets secular to mean that the content will not “*advocate or oppose any particular religious views or belief.*”<sup>275</sup>

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273. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE (2003) (defining “secular” as “1. b. not overtly or specifically religious”); RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (1999) (defining “secular” as “1. of or pertaining to worldly things or to things that are not regarded as religious, spiritual, or sacred; temporal: *secular interests*. 2. not pertaining to or connected with religion”).

274. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 714 (M.D. Pa. 2005).

275. NAT'L ASSESSMENT GOVERNING BD., COLLECTION AND REPORTING OF BACKGROUND DATA BY THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS, POLICY STATEMENT, app. A (May 18, 2002), [http://www.nagb.org/policies/PoliciesPDFs/Assessment\\_Development/](http://www.nagb.org/policies/PoliciesPDFs/Assessment_Development/)



Thus, the definition of secular turns entirely on the definition of religion and religious belief. Accordingly, if religion is defined merely as belief in God, then it is secular to promote Atheism or Atheistic beliefs because they are not concerned with God. However, if religion is defined functionally as the Supreme Court has defined it, then the beliefs of Atheists and “Secular” Humanists are not secular. It is not secular to teach that life arises from natural causes or to teach that the universe is self-existing.

The primary ingredient of secularity is that it is religiously neutral. Hence, a secular forum is one that would not favor non-theistic beliefs over theistic beliefs. If religion is defined narrowly rather than functionally, a comparative definition of secular cannot be functionally neutral. Hence, for secular to reflect its intended neutral meaning, then religion must be defined functionally and inclusively rather than exclusively and discriminatorily.

Secularity may be achieved in two ways. One way is to avoid a discussion of subjects about which religious beliefs are formed altogether. The other is by being neutral with respect to the subjects of religion if they do arise. In this latter respect, a governmental activity that touches upon, or enters into, the religious sphere may be constitutional if it does not endorse a particular religious view: “[T]he Establishment Clause stands at least for the proposition that when government activities *touch on the religious sphere*, they must be secular in purpose, evenhanded in operation, and neutral in primary impact.”<sup>276</sup>

An analysis of the meaning of religion shows that the “religious sphere” includes the cause, nature, and purpose of life. Hence, subject matter that is purely secular in content excludes these issues. For example, in *Lemon v. Kurtzman*, the Supreme Court considered a statute that defined purely secular subjects as including “mathematics, modern foreign languages, physical science, and physical education.”<sup>277</sup> Interestingly, the list did not include life science. Life science is secular in content until it addresses evolution and its historical narrative about the origin and nature of life. Health science may also stray into religious subject matter if it addresses issues about how life should be lived that exceed notions of disease avoidance. For example, sex education often addresses both how to avoid sexually-transmitted diseases as well as sexual lifestyles and behaviors in general.

The fact that the study of origins touches the religious sphere is evidenced by the Court’s decision in *Epperson*, as the Arkansas statute

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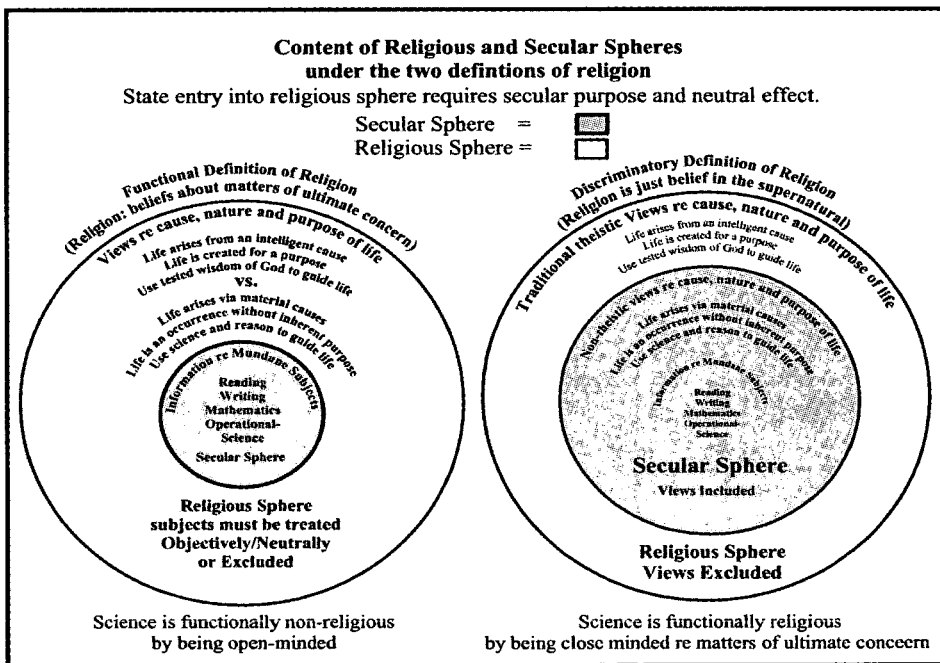
collection-report-backg-data.pdf (“Secular - NAEP questions shall not contain language that advocates or opposes any particular religious views or beliefs, nor shall items compare one religion unfavorably to another. However, items may contain references to religions, religious symbolism, or members of religious groups where appropriate.”) (emphasis added).

276. *Gillette v. U.S.*, 401 U.S. 437, 450 (1971) (emphasis added).

277. *Lemon v. Kurtzman*, 403 U.S. 602, 610 (1971).

would have been constitutional if it had deleted the entire discussion of origins from its curriculum.<sup>278</sup> Similarly, as explained in the discussions of *Lee v. Weisman*, *Malnak v. Yogi*, and *Africa v. Pennsylvania*,<sup>279</sup> a non-preferential prayer to a “universal” god or a non-theistic transcendental meditation that suggests the absence or irrelevance of God involves religious subject matter while an *ad hoc* diet regime does not. As explained by *Seeger* and *Welsh*, “religious beliefs” relate to matters of “ultimate concern,” not the mundane.<sup>280</sup> Thus, as explained by Judge Hand in *Smith I*, a teaching that promotes the existence or non-existence of god or the supernatural is inherently religious.

Since the definition of secular turns on the definition of religion, a discriminatory definition of religion limited to belief in God causes the secular sphere to increase significantly to accommodate all other non-God beliefs. However, when the religious sphere is expanded to encompass actually competing functional views about matters of ultimate concern, the secular sphere shrinks. This is demonstrated in Figure 3 below.<sup>281</sup>



**Figure 3: Boundaries of the Religious and Secular Spheres Vary with the Definition of Religion**

278. See *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968); see also *infra* Part VIII.C.1.

279. See *supra* Part III.B.3.c.

280. See *supra* Parts III.B.3.c.ix, III.B.3.c.x.

281. Copyright © 2008 John H. Calvert.

If religion is limited to only belief in a creator God, then origins curriculum that does not mention God is arguably secular. This formula permits the state to promote the key tenets of Atheism and “Secular” Humanism. However, when religion is defined as belief about God or about matters of ultimate concern such as the cause, nature, and purpose of life, then an origins curriculum that permits only natural explanations will not be considered secular.

From this, as well as the recent research in behavioral psychology,<sup>282</sup> it should be clear that any discussion of cosmological, chemical, or biological origins will necessarily involve a religious subject matter. If the subject of origins is to be presented in a secular manner—one that does not favor a particular perspective on that religious issue—then any scientific presentation must objectively present a reasonably accurate and complete description of the state of our scientific knowledge about the subject.

#### V. THE DEFINING CHARACTERISTIC OF SCIENCE IS OBJECTIVITY, NOT ORTHODOXY

##### A. *Science and Religion Address the Same Subject Matter*

Perhaps at one time science and religion could be demarcated on the basis of their differing subject matter. In the seventeenth century, religion could be viewed as an enterprise that explained how life should be lived, while science sought to systematically discover truths about the natural world with particular emphasis on ascertaining the physical and chemical laws that governed the operation of natural systems through observation and experiment.<sup>283</sup> In the West, religion assumed that life was made by a creator for a purpose. It did not conflict with science, as science sought to understand the nature of the creation.

However, a major subject matter conflict arose in the nineteenth century as science began to seriously address ultimate questions involving the origin and nature of the cosmos, life, and man. As explained by Ernst Mayr, Darwin introduced historicity to science.<sup>284</sup> Evolution moved science from seeking to explain why apples fall to an historical narrative about their origin. Cosmology, geology, anthropology, and archeology are

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282. Preston & Epley, *supra* note 21; *see supra* Part III.C.2.

283. *See generally* FRANCIS BACON, THE NEW ORGANON OR TRUE DIRECTIONS CONCERNING THE INTERPRETATION OF NATURE (1620) (showing that Bacon’s goal in developing the scientific method was to remove orthodoxy and preconceptions from science and replace them with empiricism in a search for truths upon which a body of knowledge could be erected).

284. *See supra* Part II.C.

also historical sciences that seek to explain the causal history of the natural world.

Today, the realm of science has been further expanded to include environmental, behavioral, ethical, social, and economic sciences. These "sciences" deal with individual and collective human behavior arising from inaccessible mental processes where explanations are often constructed on unverifiable assumptions and speculations that reduce to guesses and opinions rather than facts and laws. The subject matter of the realm of science often intrudes into the realm of religions that also seeks to explain the cause, nature, and purpose of life. As a consequence, in the twenty-first century, science and religion now deal with the same subject matter: the cause, nature, and purpose of life. If they deal with the same subject matter, what is the distinguishing difference that allows them to work cooperatively rather than competitively?

#### *B. Science is Objective While Religion Is Orthodox*

A name that figures prominently in this article is that of Paul Kurtz, a philosopher of science who authored the *Humanist Manifesto II*.<sup>285</sup> In an article published in a compilation of other articles about science and religion, which he edited, he describes the core difference between science and religion:

There is a profound difference between science and religion in its conception of truth. Science *requires an open mind*, free inquiry, critical thinking, *the willingness to question assumptions*, and peer review. The test of a theory or hypothesis is independent (at least one would hope) of bias, prejudice, faith, or tradition; and it is justified by the evidence, logical consistency, and mathematical coherence.<sup>286</sup>

In a word, science is objective, while religion is orthodox. An objective enterprise is unbiased, one not influenced by personal feelings or prejudice.<sup>287</sup> One that is orthodox conforms to an approved doctrine or

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285. *Smith I*, 655 F. Supp. 939, 970 (S.D. Ala. 1987), *rev'd on other grounds*, 827 F.2d 684 (11th Cir. 1987).

286. Paul Kurtz, *Overview of the Issues*, in *SCIENCE AND RELIGION: ARE THEY COMPATIBLE?* 13 (Paul Kurtz ed., 2003) (emphasis added).

287. *RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY* (1999) (defining "objective" as "5. not influenced by personal feelings, interpretations, or prejudice; based on facts; unbiased: *an objective opinion*") (emphasis added).

ideology.<sup>288</sup> A definition of science listed in Webster's Third New International Dictionary of the English Language is consistent with this demarcation between the orthodox and the objective:

science: . . . 3 a : accumulated and accepted knowledge that has been systematized and formulated with reference to the discovery of general truths or the operation of general laws: knowledge classified and made available in work, life, or the search for truth: comprehensive, profound, or philosophical knowledge; *especially: knowledge obtained and tested through use of the scientific method.*<sup>289</sup>

The same dictionary defines the scientific method as:

scientific method: . . . the principles and procedures used in the systematic pursuit of intersubjectively accessible knowledge and involving as necessary conditions the recognition and formulation of a problem, the collection of data through observation and *if possible* experiment, the formulation of hypotheses, and the testing and confirmation of the hypotheses formulated.<sup>290</sup>

These definitions of science and the scientific method describe science as an objective activity that seeks to systematically establish "accepted knowledge," not controversial orthodoxies disputed by many that are not susceptible to confirmation. The kind of non-controversial knowledge that is "pursued" is "intersubjectively accessible." That is, it is knowledge based on data that is observable or accessible to all who inquire. That kind of knowledge describes a body of facts rather than a portfolio of subjective opinions about which reasonable men may differ. In order that such knowledge be developed and accepted, it must be developed in a competitive environment that eschews bias, prejudice, and preconceptions in favor of open-minded inquiry, critical analysis, and the willingness to question assumptions.

The nature of science as an open-minded, objective, and unorthodox enterprise was affirmed by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*. In *Daubert*, the Court addressed the definition of "scientific knowledge." It concluded that "to qualify as 'scientific

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288. *Id.* (defining "orthodox" as "1. of, pertaining to, or conforming to the approved form of any doctrine, philosophy, ideology, etc.>").

289. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED (2003) (emphasis added).

290. *Id.* (emphasis added).

knowledge,' an inference or assertion must be derived by the scientific method."<sup>291</sup> As noted, the very goal of the method is to produce knowledge, not dogma. *Daubert* explained that the goal of science is to produce valid or "reliable" and "trustworthy" explanations rather than pre-ordained ones.<sup>292</sup> Hence, the Court explained that "[t]he focus, of course, must be solely on principles and methodology, not on the conclusions that they generate."<sup>293</sup> Thus, the focus of science is on seeking to produce "knowledge" as contrasted with controversial opinions or orthodoxies.

Indeed, Francis Bacon, the inventor of the scientific method, explained that its purpose was to remove preconceptions from science, so that it would be driven by a rigid objectivity: "[T]he philosophy which I bring forward . . . does not flatter the understanding by conformity with preconceived notions."<sup>294</sup>

When science is demarcated on the basis of a rigid adherence to objective empiricism, it actually limits the scope of the subject matter it addresses to those matters that are actually susceptible to objective confirmation. Thus, science that addresses issues that cannot be objectively confirmed by experiment should carefully separate opinion from fact and detail the basis and limitations of provided opinions or subjective explanations.

One such area of science that cries out for tentative and very limited explanation is science that seeks to explain the nature and origin of life and its diversity, an inherently religious matter of ultimate concern.<sup>295</sup> As explained by Ernst Mayr, evolutionary biology is an historical science that does not depend on laws or experiments for its explanations.<sup>296</sup> Rather, it seeks to develop an historical narrative that uses imagination, assumptions, and speculations to fill in the gaps in our knowledge of past unobserved and unobservable events. Hence, the question of the origin of life is likely to

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291. See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 590 (1993), and its progeny. According to *Daubert*, for an inference or assertion to qualify as scientific knowledge, it must be derived by the scientific method rather than a preconception. *Id.* *Daubert* explains that true science seeks the most "reliable" explanations rather than explanations that seek to reach a pre-ordained conclusion. See *id.* at 589-90, 597. In addition, *Daubert* points out that the focus should be "on principles and methodology, not on the conclusions that they generate." *Id.* at 595.

292. *Id.* at 589-90, 597.

293. *Id.* at 595.

294. FRANCIS BACON, PREFACE TO THE NEW ORGANON OR TRUE DIRECTIONS CONCERNING THE INTERPRETATION OF NATURE (1620) (explaining that Bacon's foremost goal in developing the scientific method was to remove preconceptions from science, so that all inquiry would proceed with an open mind).

295. See *supra* Part III.C.2.

296. See *supra* Part II.C.

never be answered in any absolute sense. The conclusion delivered will always be a probabilistic inference based on a changing mix of data.

As science is designed to develop knowledge, it should also be prepared to identify questions that have not been answered, such as the origin of the universe, life, the fundamental laws of nature, the genetic codes and language that drive biological systems, organismal form, and major increases in bio-diversity and consciousness. The science described by Francis Bacon and the Supreme Court does not close the case on these questions with orthodoxy. Rather, it describes an active investigation that will likely always leave these ultimate questions open.

The very nature of religion is to provide answers to such unanswerable questions through accepted dogmas and doctrines based on revelation, human experience, and other foundations. The adherents to those religions believe in their doctrines, in large part, due to a mix of faith, human experience, and rational analysis. Thus, the core difference between science and religion relevant to *Kitzmiller* is that religion is orthodox, while science is objective.

## VI. METHODOLOGICAL NATURALISM OR SCIENTIFIC MATERIALISM (MN) FUNCTIONS AS A RELIGIOUS ORTHODOXY IN ORIGINS SCIENCE EDUCATION

### A. *MN Is an Orthodoxy, Not a Truth About the Natural World*

In *Kitzmiller*, Judge Jones described methodological naturalism/scientific materialism (MN) as a “limitation” on explanations for origins that may be issued in the name of science: “science has been limited [by MN] to the search for natural causes to explain natural phenomena.”<sup>297</sup> “Supernatural intervention” is not a permitted explanation,<sup>298</sup> and its supernatural characteristic alone means that it cannot be considered as an acceptable scientific explanation.<sup>299</sup> This exclusion applies to “non-natural” causes,<sup>300</sup> including any intelligent cause for natural phenomena.<sup>301</sup>

The description used by Judge Jones was inserted in Kansas Science Education Standards a year later with the blessing of national science organizations:

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297. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735 (M.D. Pa. 2005).

298. *Id.* at 717.

299. *Id.* at 720.

300. *Id.*

301. *See id.* at 735 (quoting Judge Jones describing MN as a “self-imposed convention of science, which limits inquiry to testable, natural explanations about the natural world, . . . [that] is sometimes known as the scientific method. Methodological naturalism is a ‘ground rule’ of science today which requires scientists to seek explanations in the world around us based upon what we can observe, test, replicate, and verify.”) (internal citations omitted).

Science is a human activity of systematically seeking natural explanations for what we observe in the world around us. . . . [S]cience is restricted to explaining only the natural world, using only natural cause. This is because science currently has no tools to test explanations using non-natural (such as supernatural) causes.<sup>302</sup>

The limitation of explanations to only natural or material causes is reflected in an accompanying definition of scientific knowledge which presumes that the natural world is simply “physical” and that it may be explained in purely physical terms: “Scientific knowledge describes and explains the physical world in terms of matter, energy, and forces.”<sup>303</sup>

The testing justification the Court uses for limiting origins explanations to natural or material causes is discussed at length below. However, it is an odd justification. As explained under “Evolution and Intelligent Design” in Part II.C, *supra*, ID is actually a test of natural causation – it seeks to determine the reliability or adequacy of its explanations, which purport to show that apparent design is an illusion.

Although Judge Jones describes MN as being an inherent part of science “since the 16th and 17th centuries,”<sup>304</sup> the phrases “methodological naturalism” and its synonym, “scientific materialism,” do not appear in Webster’s or Random House unabridged dictionaries. Nor do they appear in the 2003 edition of the *Oxford Dictionary of Science*,<sup>305</sup> which also omits

302. KAN. STATE DEP’T OF EDUC., *Introduction to the KANSAS SCIENCE EDUCATION STANDARDS* (Feb. 14, 2007), <http://www.ksde.org/LinkClick.aspx?fileticket=yBCIHnkZFsU%3d&tabid=144&mid=5789> (emphasis added).

303. KAN. STATE DEP’T OF EDUC., KANSAS SCIENCE EDUCATION STANDARDS, *Standard 7 History and Nature of Science, Benchmark 2, Indicator 1* (Feb. 14, 2007), <http://www.ksde.org/LinkClick.aspx?fileticket=yhjb6m8G3Qg%3d&tabid=1678&mid=5716>; see also KAN. STATE DEP’T OF EDUC., KANSAS SCIENCE EDUCATION STANDARDS, *Unifying Concepts: Patterns of Cumulative Change* (Feb. 14, 2007), <http://www.ksde.org/LinkClick.aspx?fileticket=yBCIHnkZFsU%3d&tabid=144&mid=5789>.

304. *Kitzmiller*, 400 F. Supp. 2d at 735.

305. DICTIONARY OF SCIENCE (2005) (listing Michael Ruse as a contributor); see *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982). Dr. Ruse testified about the definition of religion and about criteria that demarcate science from other enterprises. These include: “(1) It is guided by natural law; (2) It has to be explanatory by reference to nature law; (3) It is testable against the empirical world; (4) Its conclusions are tentative, i.e. are not necessarily the final word; and (5) It is falsifiable. (Ruse and other science witnesses).” *Id.* at 1267. Another definition of science mentioned by the court was that it is what is “accepted by the scientific community” and is “what scientists do.” *Id.*; see also David K. DeWolf, Stephen C. Meyer & Mark E. DeForrest, *Teaching the Origins Controversy: Science, or Religion, or Speech?*, 2000 UTAH L. REV. 39 (2000) (showing how after the *McLean*



any references to “naturalism” and “materialism.” The definitions of science, scientific method, and scientific knowledge also do not reflect the limitation on explanations. Furthermore, an analysis demonstrated that prior to 2001, the limitation did not appear in state or national science standards.<sup>306</sup> The lack of formal recognition given to this supposedly fundamental scientific necessity perhaps is because it has been used in science as an unstated “convention.”<sup>307</sup> In 1988 science writer Robert Wright explained it as an “unwritten rule”:

I’m not sure whether he [a computer scientist] disagrees with me or simply doesn’t know what the word *teleological* means. It wouldn’t surprise me if the latter was the case: he is generally insensitive to the *unwritten rules of scientific conduct, one of which is to scrupulously avoid even the faintest teleological overtones.*<sup>308</sup>

Teleology is the study of design and purpose in nature. Thus, MN can also be described as the “scrupulous avoidance” of that study because that study questions the adequacy of natural cause explanations. In the Author’s experience, few scientists have ever heard of “methodological naturalism,” “scientific materialism,” or the “Rule.”<sup>309</sup> The Author was explaining it one day on a radio talk show. The audio technician was a biology teacher. She expressed doubts about the existence and use of the “Rule” as she had never heard of it during her science education. A stated orthodoxy can be problematic, but an unstated one can be misleading and deceptive.

The actual existence and use of MN is candidly explained by the renowned evolutionary biologist Richard Lewontin:

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decision the demarcation criteria were criticized by a number of other highly regarded philosophers, and how Dr. Ruse recanted some of his previous testimony).

306. DEANNA SCHOENBERGER, *THE SILENCED HEARINGS* 30 (2008) (discussing a formal study that had been conducted by Dr. Jonathan Wells, which he later presented to the Kansas State Board of Education in May 2005); *see also* *TEACHING ORIGINS OBJECTIVELY* (New Liberty Videos 2006), available at [http://www.am.org/amproducts/php/video\\_show\\_item.php?id=75](http://www.am.org/amproducts/php/video_show_item.php?id=75) (consisting of two- and five-hour DVD documentaries of twenty-three expert witnesses who testified during science hearings held by the Kansas State Board of Education in May 2005).

307. *Kitzmiller*, 400 F. Supp. 2d at 735 (describing MN as a “self-imposed convention of science”).

308. ROBERT WRIGHT, *THREE SCIENTISTS AND THEIR GODS* 70-71 (1988) (emphasis added).

309. DANIEL SCHWABAUER & JOHN CALVERT, *THE RULE* (Intelligent Design Network 2002) (a one-act play about a biology teacher who has been charged with teaching religion in his biology class, when he was actually just explaining to his students the nature and effect of the methodological naturalism – the Rule!).

[W]e have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. *Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.*<sup>310</sup>

As explained by Lewontin, the limitation on explanations to only natural or material causes is not based on scientific knowledge. It is not described as an established truth. It is described as a “commitment to materialism” – an orthodoxy.<sup>311</sup> If it was true that only natural causes have operated to produce all natural phenomena, then MN would not be an orthodoxy or doctrine; rather, it would be an article of scientific knowledge reduced to a fact or law, such as the law of gravity.

It is clear that many key events within natural history lack adequate natural explanations.<sup>312</sup> Much of the evidence actually implicates an intelligent rather than a natural cause, and scientists are scrambling to generate coherent natural cause explanations to account for new knowledge emerging from the systematic study of the genomes from many different organisms.<sup>313</sup>

Judge Jones made clear that MN is not a truth, as he described it as a “rigorous attachment,” a “convention,” a “ground rule.”<sup>314</sup> This describes a doctrine that requires conformity to an official formulation of truth. Accordingly, MN is an orthodoxy.

When a child asks, “Where do we come from?,” only one explanation is permitted—a natural cause. Even a “We don’t know!” explanation is necessarily excluded. This new natural-cause-only genesis “account” has been “embedded” in Kansas Science Education Standards as a “fundamental and comprehensive” “unifying concept” to be taught throughout the thirteen-year science education of impressionable children.

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310. Richard Lewontin, *Billions and Billions of Demons*, 44 N.Y. REV. OF BOOKS 31 (Jan. 9, 1997) (emphasis added).

311. *Id.*

312. *See supra* Part II.C.

313. *See supra* Part II.C.5.

314. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 736 (M.D. Pa. 2005) (stating that “[t]his rigorous attachment to ‘natural’ explanations is an essential attribute to science by definition and by convention”).

It reads very much like the account found in the first chapter of Genesis, except it provides a different cause:

Patterns of Cumulative Change: Accumulated changes [*due to natural/material causes*] through time, some gradual and some sporadic, account for the present form and function of objects, organisms, and natural systems. The general idea is that the present arises from materials and forms of the past. An example of cumulative change is the formation of galaxies, explained by cosmological theories involving (among other theories) gravitation and the behavior of gasses, and the present diversity of living organisms, **explained by which** the biological theory of evolution, or descent with modification of organisms from common ancestors ~~seeks to explain~~. The present position of the continents is explained by the theories of continental drift, which involves plate tectonic theory, fossilization, uplift and erosion. Patterns of cumulative change also help to describe the current structure of the universe. ~~Although science proposes theories to explain changes, the actual causes of many changes are currently unknown (e.g. the origin of the universe, the origin of fundamental laws, the origin of life and the genetic code, and the origin of major body plans during the Cambrian explosion).~~<sup>315</sup>

The implementation of MN as an orthodoxy is evidenced by the bold face insertions and the bold face strikeouts showing material that was added and deleted on February 13, 2007. Before the changes, the narrative left open the cause of change and made clear that the paragraph is purely theoretical – i.e. evolutionary theory “seeks to explain.” The deletions and

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315. KAN. STATE DEP'T OF EDUC., KANSAS SCIENCE EDUCATION STANDARDS (Feb. 14, 2007), *Unifying Concepts: Patterns of Cumulative change* (adopted Feb. 14, 2007, revised Aug. 2007), <http://www.ksde.org/LinkClick.aspx?fileticket=yBCIHNkZFsU%3d&tabid=144&mid=5789> (emphasis added in italics; changes made by Kansas State Board of Education on Feb. 13, 2007 in bold-face font). The preamble to the “account” reads: “[S]tudents should recognize that broad, *unifying concepts* and processes exist which cut across traditional scientific disciplines. Five such broad, unifying concepts and processes *are embedded* within the seven standards. These . . . *are fundamental and comprehensive*. . . .” The identification of the cause as being a “natural/material” cause is inferred from a concurrent change in the definition of science that restricts explanation to natural or material causes: “Science is a human activity of systematically seeking *natural* explanations for what we observe in the world around us. . . . [S]cience is restricted to explaining only the natural world, *using only natural cause*.”

additions converted it into an orthodox, materialistic genesis "account" of origins.

Thus, it appears clear that MN is an orthodoxy that requires conformance to a particular doctrine that "[a]ccumulated changes [*due to natural/material causes*] through time, some gradual and some sporadic, account for the present form and function of objects, organisms, and natural systems."<sup>316</sup>

The fact and existence of the orthodoxy is at the center of the confusion over the teaching of evolution. Until *Kitzmiller*, most of the cases dealing with the teaching of evolution have not addressed methodological naturalism. They have implicitly assumed that evolution was being taught objectively, as science is necessarily expected to be an objective and open-minded enterprise. The case of *Segraves v. State*, where the court issued its ruling in favor of the teaching of evolution on the assumption that it was not being taught dogmatically, is a perfect example of this misunderstanding:

"Court: '*And, moreover, science is not dogmatic in that it is open ended and there is an absence of preset conclusions?*' The witness: '*Yes sir.*' I commend this, to the State Board of Education, as a beautiful and pertinent statement of what science is all about, as a layman."<sup>317</sup>

In fact, MN directly conflicts with the critical assumption of the *Segraves* court and renders materialistic or natural cause theories of origins dogmatic and closed ended.

#### *B. MN Is a Religious Orthodoxy*

As explained by Michael Shermer, a featured *Scientific American* columnist and signatory to the *Humanist Manifesto III*, "cosmology and evolutionary theory ask the ultimate origin questions that have traditionally been the province of religion and theology." MN permits only one answer to the "questions."<sup>318</sup> Hence, it is not only an orthodoxy, it is a religious orthodoxy.

Whether officially intended or not, the orthodoxy functions to protect from testing Atheistic theories of origins as they remove God as the cause

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316. *Id.*

317. *Segraves v. State*, No. 278978, slip op. at 5 (Sacramento Super. Ct. 1981), [http://ncse.com/webfm\\_send/1062](http://ncse.com/webfm_send/1062).

318. Michael Shermer, *The Shamans of Scientism*, 286 SCI. AM. 35 (June 2002) (emphasis added).

of life.<sup>319</sup> The natural cause theories that must be assumed correct consist of cosmological, chemical, and biological evolution, all of which have profound religious implications.<sup>320</sup> According to the late Ernst Mayr, a “towering figure in evolutionary biology”:<sup>321</sup>

Darwinism rejects *all* supernatural phenomena and causations. The theory of evolution by natural selection explains the adaptedness and diversity of the world *solely materialistically*. . . . Eliminating God from science made room for strictly scientific [materialistic] explanations of all natural phenomena; it gave rise to positivism; *it produced a powerful intellectual and spiritual revolution*, the effects of which have lasted to this day. . . .

. . . .

. . . Darwin provided a scientific foundation for ethics. . . .

. . . .

To borrow Darwin’s phrase, there is grandeur in this view of life. New modes of thinking have been, and are being, evolved. *Almost every component in modern man’s belief system is somehow affected by Darwinian principles.*<sup>322</sup>

Michael Ruse admits that:

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

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319. FOSTER ET AL., *supra* note 104, at 25 (“As Alan Sokal has recently written, ‘The modern scientific worldview, if one is to be honest about it, leads naturally to atheism—or at the very least to an innocuous deism or pan-spiritualism that is incompatible with the tenets of all the traditional religions—but few scientists dare to say so publicly.’”).

320. *See supra* Part III.C.2 for a discussion of the research conducted by behavioral science experts; *see also* Preston & Epley, *supra* note 21.

321. Ernst Mayr, *Darwin’s Influence on Modern Thought*, 286 SCI. AM. 79, 81-83 (July 2000).

322. *Id.* (emphasis added).

*was true of evolution in the beginning, and it is true of evolution still today.*<sup>323</sup>

In *Fellowship of Humanity*, Judge Peters concluded that a religious tenet is one which “occupies the same place in the lives of its holders that the orthodox beliefs occupy in the lives of believing majorities . . . not necessarily referring to supernatural powers.”<sup>324</sup> Material or natural cause explanations for life occupy the same place in the lives of Atheists and “Secular” Humanists as intelligent cause explanations occupy in the life of a traditional Theist. In adopting this “parallel position” test, the Supreme Court in *Seeger* and *Welsh* recognized that religious tenets are those which deal with matters of “ultimate concern,” and not just a belief in God. Similarly, Judge Adams held in *Malnak* that a religious tenet is one which “addresses *fundamental and ultimate questions* having to do with deep and imponderable matters.”<sup>325</sup>

The tenets of “Secular” Humanism as found in even the most current version of the *Humanist Manifesto* address those fundamental and ultimate questions. *Manifesto III* employs natural cause rather than intelligent cause explanations as its core tenets. It denies “super-naturalism” and affirms that “[h]umans are an integral part of nature, the result of unguided evolutionary change. Humanists recognize nature as self-existing.”<sup>326</sup> In *Smith I*, Judge Hand held that “Secular” Humanism was religion, not science, because its natural rather than supernatural cause account for life is a “faith assumption” about a matter of ultimate concern.<sup>327</sup>

Even Judge Jones recognized the inference to an intelligent cause for life as inherently religious.<sup>328</sup> If belief in an intelligent cause of life is inherently religious, then the alternative must share the same characteristic, given the rulings of the Supreme Court holding that disbelief is religious.

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323. Michael Ruse, *How Evolution Became a Religion*, NAT'L POST ONLINE, May 13, 2000, at \*2.

324. *Fellowship of Humanity v. County of Alameda*, 315 P.2d 394, 406 (Cal. Ct. App. 1957).

325. See *supra* Part III.B.3.c. and subsections discussing *Fellowship*, *Seeger*, *Welsh*, *Malnak*, and *Smith I*.

326. *Humanist Manifesto III* (2003), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanism/Humanist\\_Manifesto\\_III](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_III).

327. *Smith I*, 655 F. Supp. 939, 982 (S.D. Ala. 1987), *rev'd on other grounds*, 827 F.2d 684 (11th Cir. 1987).

328. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 721 (M.D. Pa. 2005) (“It is notable that not one defense expert was able to explain how the supernatural action suggested by ID could be anything other than an inherently religious proposition. Accordingly, we find that ID’s religious nature would be further evident to our objective observer because it directly involves a supernatural designer.”).

This was recently noted in an article by Thomas Nagel, an Atheist Professor of Philosophy at New York University:

The consequence of all this for public education is that both the inclusion of some mention of ID in a biology class and its exclusion would seem to depend on religious assumptions. Either divine intervention is ruled out in advance or it is not. If it is, ID can be disregarded. If it is not, evidence for ID can be considered. *Yet both are clearly assumptions of a religious nature.* Public schools in the United States may not teach atheism or deism any more than they may teach Christianity, so how can it be all right to teach scientific theories whose empirical confirmation depends on the assumption of one range of these views while it is impermissible to discuss the implications of alternative views on the same question?<sup>329</sup>

Even scientific research shows this orthodoxy to be religious. As explained in Part III.C.2, *supra*, research conducted by behavioral science experts in 2008 show that strong natural cause explanations of origins trigger an automatic or subconscious negative evaluation of God and a positive evaluation of “science” or the natural cause explanation.<sup>330</sup> Because MN in origins science mandates strong natural cause explanations of origins, its expected effect is religious as it automatically triggers disbelief in God, the core tenet of Atheism and “Secular” Humanism. Accordingly, because the orthodoxy of MN addresses the most essential of ultimate questions, it is a religious orthodoxy.

### C. *MN in Origins Science Lacks a Scientific or Secular Purpose*

Even if MN is a religious orthodoxy, does it have any secular purpose or function in origins science education?

#### 1. The Stated Purpose Is Religious, Not Secular

At the outset, it is clear that the stated purpose of limiting explanations to only natural causes is to avoid supernatural causes. This is a purpose that relates to religion and is not secular, as a secular purpose is one that does not favor or disfavor a particular religious view.

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329. Thomas Nagel, *Public Education and Intelligent Design*, 36 PHIL. & PUB. AFF. 187, 200 (2008) (emphasis added).

330. Preston & Epley, *supra* note 21.

## 2. The Orthodoxy Frustrates Rather Than Advances Scientific Testing of Its Explanations

The justification typically given for MN is that it is necessary in science to ensure that all of its explanations are “testable” or “falsifiable.” According to Judge Jones,

[c]reationism, intelligent design, and other claims of supernatural intervention in the origin of life or of species are not science because they are not testable by the methods of science. These claims subordinate observed data to statements based on authority, revelation, or religious belief.<sup>331</sup>

The secular justification for MN contained in the Kansas Science Education Standards is similar:

Science is a human activity of systematically seeking natural explanations for what we observe in the world around us. . . . [S]cience is restricted to explaining only the natural world, using only natural cause. This is because science currently has no tools to test explanations using non-natural (such as supernatural) causes.<sup>332</sup>

As a preliminary matter, it should be noted that an inference to an intelligent cause does not in anyway depend on “statements based on authority, revelation, or religious belief.” Socrates, Aristotle, Plato, and modern ID theorists base their hypothesis wholly on an analysis of “observed data,” not scripture. ID simply responds to the common observation that “features of organism” “seem” not only “well designed,” but “superb[ly]” designed.<sup>333</sup> Evolutionary biologists claim this *prima facie* design can be explained by natural causes. ID scientists simply disagree. They argue that scientific analyses of the data show those natural explanations to be unreliable and *inadequate*. Given that inadequacy, *prima facie* design has not been shown to be an illusion as evolutionary

331. *Kitzmiller*, 400 F. Supp. 2d at 737.

332. KAN. STATE DEP'T OF EDUC., *Introduction to the KANSAS SCIENCE EDUCATION STANDARDS* (Feb. 14, 2007), <http://www.ksde.org/LinkClick.aspx?fileticket=yBCIHNkZFsU%3d&tabid=144&mid=5789> (emphasis added).

333. Adam S. Wilkins, *Between “Design” and “Bricolage”*: *Genetic Networks, Levels of Selection, and Adaptive Evolution*, in PNAS, *supra* note 53 at 8591 (May 15, 2007) (“[A]s Francisco Ayala discusses in this issue of PNAS (19), the challenge for evolutionary biologists is to explain how seemingly well designed features of organism, where the fit of function to biological structure and organization often seems superb, is achieved without a sentient Designer.”).



biologists claim. Unlike MN, ID is not an orthodoxy. It is conceptually equivalent to an evolutionary claim not protected by the orthodoxy of MN.

The question then becomes whether the claims of ID are or are not testable using “the tools of science.” An inference to any intelligent cause for any given pattern, whether natural or supernatural, depends on three showings or claims: (1) the pattern consists of elements that serve an objectively recognizable function or goal, such as sequences of bases in DNA integrated into messages that have been observed to have been transcribed and translated into functional gene products; (2) the elements of the pattern are not integrated by or due to any physical or chemical necessity as is the case with the sequences of bases in DNA; and (3) the number of integrated elements necessary to achieve selectable function are too great to be plausibly explained by chance or random occurrences, as is the case with the length of messages believed necessary for the origin of life and for the origin of functional bio-systems that appear irreducibly complex.<sup>334</sup>

The first claim appears to have passed all tests, as biologists agree that bio-systems appear designed. That consensus is based on “observation,” not scripture.

The second claim is also uncontroversial. Under the definition of Intelligent Design, the sequences of bases in DNA are not chemically or physically ordered.<sup>335</sup> Accordingly, Jacques Monod, the evolutionary biologist and Nobel Laureate, concluded “that chance alone is at the source of every innovation.”<sup>336</sup>

The third claim, regarding the plausibility of the chance hypothesis, is clearly testable once one has determined the number of possible opportunities or trials for a particular outcome and the number of possible outcomes. The equation,  $P$  (probability) =  $T$  (# of trials) /  $O$  (# of possible outcomes), is very straightforward and was recently used to conclude that simple sequence repeats in DNA are not due to random mutation.<sup>337</sup>

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334. See *supra* Part II.C.5.

335. JACQUES MONOD, CHANCE AND NECESSITY 95-96 (Austryn Wainhouse trans., Vintage Books 1971) (1970) (“[I]f one were able not only to describe these sequences but to pronounce the law by which they assemble, one could declare the secret penetrated, the *ultima ratio discovered*.”) (emphasis added).

336. *Id.* at 112-13.

337. King et al., *supra* note 55, at 77. Simple sequence repeats are short sequences of bases that appear repetitively in the genome. The paper reports that 88,000 sites in the human genome contain repeats with an average length of over 50 repeats. *Id.* The authors conclude that the repeats may function to regulate quantitative effects. *Id.* They also concluded that their occurrence is not due to chance: “The probability that a particular sequence of  $n$  base pairs will appear at a specified site in a random DNA sequence is

Whether a particular probability is plausible may be subjective to an individual. However, the math itself is testable. Probability calculations for the origins of the universe, life, and a single new gene appear to be practically zero.<sup>338</sup> These analyses render implausible Monod's dogma "that chance alone is at the source of every innovation."<sup>339</sup>

But more importantly, disputed claims two and three represent nothing more than challenges to the adequacy of natural causes to explain integrated patterns. If the ID argument is not allowed, then natural causes themselves cannot be tested. Hence, MN has the effect of frustrating the scientific testing of the claims of evolutionary biology. Not only are ID claims testable, the suppression of its claims frustrates the testing of the natural cause claims of evolution and renders that theory practically unfalsifiable. Thus, MN guarantees that Monod's claim of chance cannot be tested or challenged. The very reason he has to rely on the chance claim is that physical and chemical necessity do not come to his aid to explain biodiversity.

A key reason MN frustrates the testing of natural cause explanations is that those explanations amount to historical narratives that can only be effectively tested using the kind of comparative analysis employed in forensic science.<sup>340</sup> Evolutionary biology, like crime scene investigation, is an historical science that depends on the ruling out of competing hypotheses for its scientific validity. However, MN disallows the competition and thereby exempts evolution from testing. This actually deprives materialistic claims of evolution from having the status of "scientific knowledge" as defined by the Court in *Daubert v. Merrell Dow Pharmaceuticals* and its progeny.<sup>341</sup> According to *Daubert*, for an inference or assertion to qualify as scientific knowledge, it must be derived from the scientific method. As shown above, that is not the case with either MN or, because of MN, evolution. An expert that cannot rule out

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approximately  $(1/4)^n$  [assuming equal proportions of each nucleotide]. Thus any repeated sequence longer than 20 or so base pairs is unlikely to appear solely by chance, even once, anywhere in the  $3 \times 10^9$  base pairs of the human genome." *Id.* If an SSR has an average length of 6 bases and each sequence has an average length of 50 repeats, then the average length of each of the 80,000 SSR's is 300 bases. Thus, the probability of one SSR is  $1/4300$  or roughly  $1/10180$  or practically zero. See also MICHAEL J. BEHE, *THE EDGE OF EVOLUTION: THE SEARCH FOR THE LIMITS OF DARWINISM* (2007).

338. See *supra* Part II.C.

339. MONOD, *supra* note 335, at 112-13.

340. See *supra* Part II.C.

341. See *supra* Part V.B.

competing hypotheses has not been allowed to advance an opinion as to the cause of an historical event.<sup>342</sup>

In summary, MN frustrates rather than aids the testing of scientific claims.

### 3. MN Is Contrary to, Not Equivalent to, the Scientific Method

Judge Jones based his decision in part on a finding that MN is the scientific method: “‘Methodological Naturalism’ . . . is sometimes known as the scientific method.”<sup>343</sup> However, if one searches the definition of the scientific method,<sup>344</sup> one does not find MN mentioned or contemplated. Francis Bacon developed the scientific method to remove preconceptions, not insert one. The Supreme Court in *Daubert* ruled that scientific knowledge consisted of reliable, not preconceived, explanations.<sup>345</sup> MN is a preconceived explanation that eschews reliable or more adequate explanations in favor of natural explanations.

The argument used by Judge Jones and science associations is based on an inherently false dichotomy. The dichotomy is that all explanations must be either natural or supernatural. Since science cannot be concerned with the supernatural, it must limit explanations to the natural. The problem is that a third possible explanation exists. That explanation is simply: “cause unknown.” Cause unknown is the kind of explanation that encourages investigation and inquiry that will lead to more reliable explanations, while cause known closes inquiry. A coroner resorts to this form of explanation when she finds that the data fails to implicate a natural, intelligent, or accidental cause.

### 4. MN Appears To Be Used Irrefutably Only in the Area of Science That Impacts Religion

A standard defense of MN is that it is the component of science that has generated its tremendous success. Like many evolutionary narratives, that is at best an historical speculation. A more plausible hypothesis is that the success of science is due to the abandonment of orthodoxy in favor of rigorous open-minded empiricism.

An inherent problem with the claim that MN is necessary to science is that it is not used in all of science and appears to be an irrefutable

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342. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153-54 (1999) (where an expert who could not rule out other hypotheses was not allowed to opine that a tire failed due to design defect); see Arvid V. Zuber, *Daubert & Scientific Methodology – Science Made Easy*, SUPPLEMENT FOR THE DEFENSE, Nov. 1999, at 19.

343. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735 (M.D. Pa. 2005).

344. See *supra* Part V.B.

345. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 590 (1993).

proposition only in origins science. In many areas of molecular biology and biochemistry, scientists use methodological design rather than methodological naturalism as a working hypothesis. The analysis of bio-systems as if they were designed is reflected in descriptions commonly found in scientific papers about cellular systems and the genome. A word search of papers and books typically reveal systematic use of language suggesting that the system is “designed,” that it reflects an “architecture,” or is the product of a “strategy.” Michael Ruse, a key science expert in the *McLean* case, has explained that the use of design metaphors and design thinking is essential because the system actually operates as if it were designed:

Both history and present Darwinian evolutionary practice have shown us that this kind of design-type thinking is involved in the adaptationist paradigm. We treat organisms—*the parts at least*—as if they were manufactured, as if they were designed, and then we try to work out their functions. End-directed thinking—teleological thinking—is appropriate in biology because, and only because, *organisms seem as if they were manufactured*, as if they had been created by an intelligence and put to work.<sup>346</sup>

One scientist who has employed methodological design as a working hypothesis is Albert De Roos, an expert in bioinformatics. In an e-mail dialogue introduced during the Kansas Science Hearings, De Roos explained that MD (Methodological Design) is frequently used in operational science but “forbidden” in origins science.<sup>347</sup>

Numerous operational scientists testified during the Kansas Science Hearings that evolutionary theory was completely irrelevant to their work. Other scientists have argued that a reduction to natural causes has held back

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346. MICHAEL RUSE, *DARWIN AND DESIGN: DOES EVOLUTION HAVE A PURPOSE?* 268 (2003) (emphasis added).

347. JOHN H. CALVERT & WILLIAM S. HARRIS, *THE AUTHORS' SUGGESTED FINDINGS OF FACT AND CONCLUSIONS OF LAW 55* (May 26, 2005), <http://www.KansasScience2005.com>. The authors submitted this report to the Kansas State Board of Education Hearing Committee on May 26, 2005. The email stated:

Dear John, Most scientists indeed do use ‘design’ as a practical approach or methodology. The teleological approach works very fine in deciphering systems like the brain, the eye etc. However, as soon as you touch on the subject evolution, it is ‘forbidden’ to talk about design. *I have not come across real design thinking in trying to understand genome evolution.* On the contrary, with the advent of neo-Darwinism, evolution has (in my opinion) become a magical thing that *arose by chance without any goal-direction.*”

*Id.* (emphasis added).

scientific discovery.<sup>348</sup> For years, evolutionary biologists have argued that ninety-eight percent of the genome consists of an accumulation of evolutionary junk. However, design theorists predicted that the junk is actually functional. The mapping of the human genome has validated the design prediction. One scientific paper suggests that the prediction of evolutionary junk had actually frustrated scientific discovery.<sup>349</sup> Other scientists have found that a “third way” is needed if science is to optimize its search for cures to disease.<sup>350</sup>

##### 5. Methodological Naturalism Is an Irrefutable Doctrine While Philosophical Naturalism Is a Refutable Belief

Although MN is described officially as an objective method of science that does not claim materialism or naturalism to be true, even materialists recognize that as “disingenuous.”<sup>351</sup> The argument is that scientists who prepare explanations about the cause of events are not required to believe the natural cause explanations to be true. The distinction is odd since continuous use of the doctrine should be expected to lead to the belief. The very vice of a doctrine or orthodoxy is that it shapes belief based on authority rather than truth. Furthermore, it is very deceptive because explanations are not issued with an MN caveat. Hence, they are always presented as if the issuer believed them to be true. The invalidity of the argument appears to have been scientifically established by the research previously described,<sup>352</sup> showing that strong explanations of origins trigger automatic or subconscious disbelief in God.

The suggested distinction between MN and Philosophical Naturalism (“PN”) is used to suggest that PN is somehow worse than MN and therefore MN is proper. But the opposite is actually the case. MN requires acceptance, whereas PN does not. A violation of MN will cause a scientist to be excommunicated as is explained in the 2008 film *Expelled: No Intelligence Allowed*.<sup>353</sup> Thus, it appears that MN is not used exclusively in operational science and is actually counterproductive. As explained by De Roos, the primary function of MN has been to advance a particular religious view regarding the origin of life.<sup>354</sup> But that is not a secular purpose. That is a religious purpose.

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348. Mattick, *supra* note 79, at 61.

349. *Id.*

350. James A. Shapiro, *supra* note 55.

351. FOSTER ET AL., *supra* note 104, at 23.

352. *See supra* Part III.C.2.

353. *EXPULSED: NO INTELLIGENCE ALLOWED* (Premise Media Corp. 2008) (starring Ben Stein).

354. *Id.*

## 6. MN Is a Religious Orthodoxy Promoted with Religious Zeal

When religion is defined functionally to include both theistic and non-theistic religious belief systems, it is evident that MN is a religious orthodoxy that does not serve the search for reliable or more adequate explanations of natural phenomena.

The purpose of an orthodoxy is to establish a position that may not be challenged and that must be accepted or conformed to. The primary enemy of orthodoxy is an inquiry into the validity of the orthodoxy itself. If the orthodoxy itself is shown to be inadequate, then it will necessarily fail. Those who promote it cannot tolerate inquiry. Accordingly, if one does not accept an orthodoxy, then the non-conformist must be excluded. Heresy must be outlawed. The fate of the heretic is excommunication, exile, prison, and even death. The protection of an orthodoxy is most important in the education of children because they have yet to choose what to believe. Socrates was sentenced to death for teaching children methods of inquiry that challenged a particular religious orthodoxy.<sup>355</sup>

To counter a challenge to an orthodoxy, the defending authority must have a strategy that will exclude the heretic. Because the exclusionary process cannot allow for an examination of the orthodoxy itself, the authority must discredit the character and reputation of the dissident rather than address the claimed flaws in the orthodoxy itself. These campaigns involve the use of parody, misinformation, boycotts, job discrimination, and the like, to send a message to others about the fate of those who might join the ranks of the dissident. The strategy is to demean rather than to discuss.

Those challenging MN are derided as attacking science even though they seek to be its defenders. Science should be the one institution that eschews orthodoxy; it is the discipline that should hold all other orthodoxies in check. However, when the enterprise of science itself becomes orthodox, then it threatens to become the most powerful of all orthodoxies.

Those who promote MN with zeal appear just as religious as biblical literalists. A study conducted by Larry Wittham and Edward Larson of members of the National Academy of Science, published in the journal *Nature*, shows that ninety-three percent of the respondents disbelieved (72.2%) or doubted (20.8%) the existence of a "personal god."<sup>356</sup> The CEO

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355. DAVID SEDLEY, CREATIONISM AND ITS CRITICS IN ANTIQUITY 79 (2007).

356. Edward J. Larson & Larry Witham, *Leading Scientists Still Reject God*, NATURE, July 23, 1998. The article closes with these remarks:

As we compiled our findings, the NAS issued a booklet encouraging the teaching of evolution in public schools. . . . The booklet assures readers, 'Whether God exists or not is a question about which science is neutral.' NAS president Bruce Alberts said: 'There are many very outstanding members of

of the National Center for Science Education is an acknowledged materialist and signatory to the *Humanist Manifesto III*, as is Michael Shermer, a featured columnist of *Scientific American* and advocate of scientism.<sup>357</sup> Many leading scientists who are Atheists recently published a series of virulent attacks on traditional theistic religions, scientists including Victor Stenger, Richard Dawkins, and Daniel Dennett; Sam Harris and Christopher Hitchens have joined them.<sup>358</sup> The religion of Barbara Forrest, a key witness in *Kitzmiller*, would appear to be the same as “Secular” Humanist Paul Kurtz, whose religion he describes as “science.”<sup>359</sup>

The events surrounding a legal challenge to a sticker affixed to biology textbooks used by a school district in Cobb County, Georgia, are an example of the extreme measures used by materialists to suppress *any* dissent.<sup>360</sup> The sticker merely alerted students to the idea that textbook discussions of evolution, an inherently religious subject, should be “studied carefully, and critically considered.”<sup>361</sup> The objective observer would consider the challenge to this sticker as a defense of the orthodoxy of MN to ensure that materialistic explanations of origins are as “strong”<sup>362</sup> and robust as possible and never studied carefully or given any critical consideration. Since orthodoxy cannot tolerate critical analysis, the sticker is a threat.

The support of an orthodoxy requires a cadre of adherents using religious zeal to promote the orthodoxy. The National Center for Science Education (NCSE), headed by Eugenie Scott, an acknowledged materialist and signatory to the *Humanist Manifesto III*, appears to lead the defense of the

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this academy who are very religious people, people who believe in evolution, many of them biologists.’ *Our survey suggests otherwise.*

*Id.*

357. *Humanist Manifesto III* (2003), [http://www.americanhumanist.org/Who\\_We\\_Are/About\\_Humanism/Humanist\\_Manifesto\\_III](http://www.americanhumanist.org/Who_We_Are/About_Humanism/Humanist_Manifesto_III); Shermer, *supra* note 318, at 35.

358. See generally RICHARD DAWKINS, *THE GOD DELUSION* (2006); DANIEL DENNET, *BREAKING THE SPELL: RELIGION AS A NATURAL PHENOMENON* (2007); SAM HARRIS, *LETTER TO A CHRISTIAN NATION* (2006); SAM HARRIS, *THE END OF FAITH* (2004); CHRISTOPHER HITCHENS, *GOD IS NOT GREAT: HOW RELIGION POISONS EVERYTHING* (2007); VICTOR STENGER, *GOD: THE FAILED HYPOTHESIS* (2007).

359. See discussion of *Smith I*, *supra* Part III.B.3.c.xiv. Barbara Forrest, author of *Creationism’s Trojan Horse: The Wedge of Intelligent Design*, is a professor of philosophy and author of *The Possibility of Meaning in Human Evolution*, 35 *ZYGON* 861 (2000).

360. See *Selman v. Cobb County Sch. Dist.*, 390 F. Supp. 2d 1286 (N.D. Ga. 2005).

361. *Id.* at 1306 (“This textbook contains material on evolution. Evolution 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.”).

362. See Preston & Epley, *supra* note 21 (showing how strong materialistic explanations of origins trigger unconscious or automatic disbelief in God).

orthodoxy in the United States. The NCSE identifies any initiative that seeks an objective teaching of evolution and then marshals an array of defenders to caricature those seeking to open the mind of science education.<sup>363</sup> This necessitates the development of organizations within the state to mount the offensive. In Kansas, it is Kansas Citizens for Science (KCFS). That group of "Citizens for Science" has been cloned, such that similar affiliates will be found in Texas, Ohio, Alabama, New Mexico, Colorado, Tennessee, Minnesota, Nebraska, Iowa, Oklahoma, South Carolina, Pennsylvania, Michigan, and Florida.<sup>364</sup>

A part of the strategy is to recruit mainstream churches to adopt resolutions declaring evolution to be consistent with mainstream religion.<sup>365</sup> The message is that those who challenge evolution (not orthodox materialism) are radical religious fundamentalists or biblical literalists who are the enemies of good science and good religion. For example, at its meeting in St. Louis in 2007, the American Association for the Advancement of Science, the largest science organization in the world, urged its members to call on

mainstream religious communities to help them fight policies that undermine the teaching of evolution. . . . Eugenie Scott, director of the National Center for Science Education, which campaigns to keep the teaching of evolution in public schools, said those in mainstream religious communities needed to 'step up to the plate' in order to prevent the issue being viewed as a battle between science and religion.<sup>366</sup>

In 2002, the Presbyterian Church USA was prevailed upon to adopt a resolution that "[r]eaffirms that there is no contradiction between an evolutionary theory of human origins and the doctrine of God as Creator."<sup>367</sup> The Church of England was called upon to issue an "apology"

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363. The NCSE web site describes the mission of the NCSE as one of "DEFENDING THE TEACHING OF EVOLUTION IN THE PUBLIC SCHOOLS," rather than an objective teaching of origins science per the scientific method. NCSE, <http://ncseweb.org/?gclid=CKmvzt6RgJkCFQ8eDQodbG3Ulw>.

364. See Citizens for Science, <http://www.CitizensforScience.org>.

365. See Paul Rincon, *Churches Urged to Back Evolution*, BBC NEWS, Feb. 20, 2006, available at <http://news.bbc.co.uk/1/hi/sci/tech/4731360.stm>.

366. *Id.*

367. Answers in Genesis, *No Contradiction Between Evolution and Bible – PCUSA*, ANSWERS IN GENESIS, Jul. 13, 2002, available at <http://www.answersingenesis.org/docs2002/0713pcusa.asp>.



to Charles Darwin.<sup>368</sup> As explained by Dinesh D'Souza, the “strategy is not to argue with religious views or to prove them wrong. Rather, it is to subject them to such scorn that they are pushed outside the bounds of acceptable debate.”<sup>369</sup> This has been exceedingly successful as many mainstream churches seek intellectual respectability.<sup>370</sup> However, coddling mainstream religion is not enough for some who believe “[s]cientists should unite against [the] threat from religion.”<sup>371</sup>

A comprehensive definition of religion embraced by the Tenth Circuit in *United States v. Meyers* notes that religious orthodoxies are often promoted by canonizing a founder and celebrating a “sacred or important day.”<sup>372</sup> The religious orthodoxy of MN canonizes Charles Darwin and celebrates his birthday every year on *Darwin Day* each February 12.<sup>373</sup>

A film that documents the strategy employed by the authority is *Expelled: No Intelligence Allowed*, starring Ben Stein. The film uses the metaphor of the former Berlin Wall to illustrate the way MN is being promoted in the scientific community. Those who break the rule are excommunicated, persecuted, and exiled from the academic and scientific community. One of the persecuted, biologist Jerry Bergman, Ph.D., chronicles the cases of many other dissidents in a new book.<sup>374</sup>

368. Jonathan Wynne-Jones, Religious Affairs Correspondent, *Charles Darwin to Receive Apology from the Church of England for Rejecting Evolution*, TELEGRAPH.CO.UK, Sept. 14, 2008, available at <http://www.telegraph.co.uk:80/news/newstopics/religion/2910447/Charles-Darwin-to-receive-apology-from-the-Church-of-England-for-rejecting-evolution.html>.

369. Dinesh D'Souza, *The Atheist Indoctrination Project*, TOWNHALL.COM, Oct. 22, 2007, available at [http://www.townhall.com/Columnists/DineshDSouza/2007/10/22/the\\_atheist\\_indoctrination\\_project](http://www.townhall.com/Columnists/DineshDSouza/2007/10/22/the_atheist_indoctrination_project).

370. Yonat Shimron, *Churches Discuss Evolution: Congregations Seek to Square Science and Faith*, THE NEWS & OBSERVER, Feb. 16, 2007 (“In honor of Charles Darwin, who was born Feb. 12, 1809, nearly 600 churches across the country are holding ‘Evolution Sunday,’ sometime during the month of February. The brainchild of an Indianapolis-based biology professor, the project has taken off since it was introduced last year with a clergy letter, signed by 10,000 Christian leaders – including 362 from North Carolina.”).

371. Sam Harris, Correspondence, *Scientists Should Unite Against Threat from Religion*, 448 NATURE 864 (2007), available at <http://www.nature.com/nature/journal/v448/n7156/full/448864a.html>.

372. *United States v. Meyers*, 95 F.3d 1475, 1483 (10th Cir. 1996).

373. For a book describing the effects of the religious orthodoxy of MN on the culture, see JOHN G. WEST, *DARWIN DAY IN AMERICA: HOW OUR POLITICS AND CULTURE HAVE BEEN DEHUMANIZED IN THE NAME OF SCIENCE* 210-12 (2007).

374. JERRY BERGMAN, *SLAUGHTER OF THE DISSIDENTS: THE SHOCKING TRUTH ABOUT KILLING THE CAREERS OF DARWIN DOUBTERS* (2008).

Another less known film that documents the persecution of those who question materialism is *Teaching Origins Objectively*.<sup>375</sup> It captures the testimony of a number of persecuted dissidents as well as those of other experts about the nature of the orthodoxy and its attack on science. The battlefield was a four-day science hearing conducted by the Kansas State Board of Education in May 2005 over two competing proposals for the teaching of origins in Kansas public schools.<sup>376</sup> One proposal called for the explicit insertion of MN into the Kansas Standards and the exclusion of any standard that might lead a student or teacher to question the materialism promoted by the orthodoxy – the Materialistic Proposal. It was defended by all the recognized science organizations, with the point organization being Kansas Citizens for Science, which worked in harmony with the national defender of the orthodoxy, the National Center for Science Education (NCSE).<sup>377</sup>

The other proposal, which sought to substitute scientific objectivity for the orthodoxy, did not actually seek to insert the positive case for ID. Rather, it called for curriculum that would encourage teachers to objectively present to students a more comprehensive showing of the state of scientific knowledge regarding chemical and biological evolution. Thus it did not seek to make a weak naturalistic case for origins, but rather a more accurate one. The authors of the Objective Proposal were eight members of a twenty-five-member science writing committee appointed by the Kansas State Board of Education.<sup>378</sup> They were led by an internationally known and recognized biochemist, William S. Harris, Ph.D.<sup>379</sup>

Due to the competing proposals and their educational significance, the State Board directed that both proposals be publicly examined during extensive hearings conducted in May 2005. Details of the proposals and summaries of testimony provided are reflected in the *Authors' Suggested Findings of Fact and Conclusions of Law* submitted to the State Hearing Committee following the hearings and are published on the web site

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375. TEACHING ORIGINS OBJECTIVELY (New Liberty Videos 2006), available at [http://www.arn.org/amproducts/php/video\\_show\\_item.php?id=75](http://www.arn.org/amproducts/php/video_show_item.php?id=75).

376. The discussions in this section regarding the events occurring at the science hearings in Kansas in the spring of 2005 amount to recollections of the Author, who was the spokesman for the Authors of the Objective Proposal and the presenter of the witnesses at the hearings.

377. *Id.*

378. *Id.*

379. The Author was spokesman for the Authors of the Objective Standards and presented the twenty-three expert witnesses during the hearings. He has personal knowledge of the events mentioned in this section of this article.

maintained by the authors.<sup>380</sup> Two documentaries of the science hearings held in May 2005 and a book about them also explain the proposals and the testimony of twenty-three experts concerning the proposals.<sup>381</sup>

Prior to the hearings, the media and public relations officer of KCFS explained in an internet post the strategy to be used:

My strategy at this point is the same as it was in 1999: notify the national and local media about what's going on *and portray them in the harshest light possible, as political opportunists, evangelical activists, ignoramuses, breakers of rules, unprincipled bullies, etc.* There may [be] no way to head off another science standards debacle, but *we can sure make them look like asses as they do what they do. Our target is the moderates who are not that well educated about the issues, most of whom probably are theistic evolutionists.* There is no way to convert the creationists.<sup>382</sup>

This describes a non-scientific policy designed to demean rather than to discuss. It is consistent with the Author's observation of mainstream media strategy employed whenever a threat to MN arises. As explained in the memo, the "strategy" seeks to define proponents of objectivity as ignorant, religious bullies.

More than a month before the Kansas hearings, Harris and his colleagues provided the state and the opposition with a list of twenty-three expert witnesses who proposed to testify about the Objective Proposals. They included five Ph.D. biologists/molecular biologists, four Ph.D. biochemists, three Ph.D. chemists (two with expertise in theories of chemical evolution), one Ph.D. geneticist (the inventor of the gene gun), one Ph.D. quantum physicist, three philosophers of science (two with Ph.D.s), one Ph.D. professor of education and religion, three biology teachers, a Muslim journalist, and an attorney knowledgeable in constitutional law.<sup>383</sup> News

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380. JOHN H. CALVERT & WILLIAM S. HARRIS, THE AUTHORS' SUGGESTED FINDINGS OF FACT AND CONCLUSIONS OF LAW 19 (May 26, 2005), <http://www.KansasScience2005.com> (submitted to the Kansas State Board of Education Hearing Committee on May 26, 2005).

381. DEE SCHOENBERGER, THE SILENCED HEARINGS (2008); TEACHING ORIGINS OBJECTIVELY (New Liberty Videos 2006), available at [http://www.arn.org/amproducts/php/video\\_show\\_item.php?id=75](http://www.arn.org/amproducts/php/video_show_item.php?id=75).

382. See <http://www.kansasscience2005.com/To%20whom%20this%20may%20concern.pdf> (emphasis added). Dr. Harris provided a copy of the e-mail to the hearing committee of the Kansas State Board of Education on May 5, 2005, and posted it on the Author's website.

383. The credentials of these witnesses and their key testimony are summarized in DEE SCHOENBERGER, THE SILENCED HEARINGS (2008).

organizations from all around the world reserved seats in advance. During the hearings the aisles of the auditorium were lined with TV crews.

When the defenders of the orthodoxy saw the list, they had an expense-paid invitation to send experts to confront and examine these experts and otherwise justify the orthodoxy on its merits. However, an acceptance of the invitation would itself acknowledge that it is permissible to question the orthodoxy. Further, if the defense was not wholly successful, the orthodoxy would cease to exist. Given the list of experts challenging the orthodoxy, its defenders chose to boycott the proceedings. Instead of discussing their concerns, they sought to demean the opposition in the eyes of the public. Rather than attend the hearings and be required to answer questions, they maintained a press booth outside the hearings and issued press releases to uninformed mainstream media. To boycott is "to combine in abstaining from, or preventing dealings with, as a means of intimidation or coercion: *to boycott a store.*"<sup>384</sup> By boycotting the hearings, institutions of science avoided an examination of the use of the orthodoxy, its religious effect and the scientific problems with it. The organizations supporting the boycott included affiliates of all national science organizations.<sup>385</sup> The boycott cast those crossing the picket line as religious zealots and ignorant opponents of good science. It had the effect of implementing the KCFS media strategy and intimidating any who might speak to remain silent.

Although all twenty-three witnesses appeared and testified, it was no easy task for some. One biology teacher testified of her fear and conflicting duties to family. Another witness, who was a week away from completing all the requirements for a Ph.D. in science education, was attacked upon his return to Ohio State, and was subjected to an intense and humiliating investigation and a change in the composition of his doctoral dissertation committee that ensured his failure to complete the requirements for his degree.<sup>386</sup> During the hearing, other witnesses testified about the extent of the orthodoxy and how they had lost jobs in public K-12 schools and at a state university. Most of the other scientists who testified were able to do so only because they had attracted significant grants for their employers or were engaged in private sector jobs where the orthodoxy does not trump profitable service.<sup>387</sup> This author presented the twenty-three witnesses and interviewed each before the hearings. They told of institutional discrimination that was intimidating to scientists holding theistic beliefs.

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384. RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (1999).

385. *Hearing Before the Sci. Comm.*, Kan. State Bd. of Educ. (May 12, 2005) (testimony of Pedro Irigonegary) (transcript archived with Kan. State Bd. of Educ.).

386. See DEE SCHOENBERGER, THE SILENCED HEARINGS (2008); TEACHING ORIGINS OBJECTIVELY (New Liberty Videos 2006).

387. See *supra* notes 378-81.

One professor of biology at a major university explained that many of his Christian undergraduate students were worried about making biology a profession because of their faith and disbelief in the materialistic orthodoxy for scientific reasons.<sup>388</sup>

Parody is used extensively to provide the impression to the public that all opponents of materialism are stupid and ignorant. The quote shown below is from an article published by Adrian Melott, Ph.D., in a publication for Atheists and Agnostics.<sup>389</sup> In the article, Melott, a physicist and Humanist/Unitarian Sunday school teacher, bragged about "*How we threw the bums out.*"<sup>390</sup> He explained how he and Mirecki, an Atheist and former chair of the Religious Studies Department of the University of Kansas, concocted a character assassination strategy designed to demean the Bible and any who have a deep faith in it. The strategies included the organization of a Flat Earth Society that would cause the public to associate objective proposals critiquing natural causes to be likened to those advocating a flat earth. Prior to public events, members of the group would dress up in gorilla suits and wave placards and banners outside meeting halls and auditoriums addressing the issue. Included in the strategy was a program that would lead the public to think that objective science standards would cause business and economic resources to flee the state and would impede the ability of high school graduates to gain entrance to colleges, including even Kansas universities:

Another thing we did was emphasize economic effects, effects on education in Kansas, effects on whether or not corporations would want to relocate to Kansas, effects on the Kansas schools which, after all, do typically have standardized test scores well above the national average and climbing. *We appealed to the prospect that children from Kansas might have trouble getting into good universities, even the ones in their own state. We think that these pragmatic appeals to self-interest work better than abstract appeals to some kind of truth. We think they have a bigger effect on the electorate.* KCFS is also a 501(c)(3) organization, and the organization worked to educate the public

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388. The head of a major research program at a recognized state university explained this to the Author prior to the hearings. He had developed a mentoring program for students to assist them with the discrimination and to suggest ways to encourage them to continue their studies.

389. Adrian Melott, *How We Threw the Bums Out*, 17 FREETHOUGHT TODAY 5-7 (2000).

390. *Id.*

about evolution and to let the public know what the positions of the various candidates were.<sup>391</sup>

The Religious Studies Department at the University of Kansas entered the fray when its chairman, an Atheist and a founder of a KCFS affiliate, developed a class designed to portray both Intelligent Design and Christianity as myths for the purpose of ridiculing the Kansas State Board. Mirecki, the chair of the department, outlined the plan in an e-mail sent to a student group of Atheists and Agnostics he led.<sup>392</sup> The e-mail indicates that he expected to have the full cooperation of "several other lefty KU professors in the sciences and humanities" and "Chancellor Hemenway . . . in the light of his public comments supporting evolution."<sup>393</sup>

Another example of the use of religious zeal used to promote the orthodoxy is the parody of the Flying Spaghetti Monster.<sup>394</sup> The parody denigrates Christianity to promote the orthodoxy. It was developed by Bobby Henderson specifically to oppose the proposed objective science standards.<sup>395</sup> In a letter to the Kansas Board, he suggested the state teach the Flying Spaghetti Monster as well as Intelligent Design. The parody likens belief in Jesus and God as the equivalent of belief in a Flying Spaghetti Monster (FSM). During the debate, a Kansas public school science teacher adorned his science classroom door with a poster of the FSM that would lead children to the FSM website.<sup>396</sup> The website would show them Henderson's letter to the Kansas Board and the images of Jesus and God replaced with the FSM in a number of iconic works of art like Leonardo's *Last Supper* and Michelangelo's *The Creation of Adam* Panel on the ceiling of the Sistine Chapel. The website shows that proceeds from the sale of FSM memorabilia go to the NCSE. Although institutions of science and education may not have explicitly embraced the Flying Spaghetti Monster, their lack of dissent and the outright support of many of

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391. *Id.*

392. Rick Anderson, *KU Professor Says Note About Creationism Course Wasn't Public*, TOPEKA CAPITOL J., Nov. 24, 2005, available at [http://cjonline.com/stories/112405/kan\\_email.shtml](http://cjonline.com/stories/112405/kan_email.shtml).

393. *Id.*

394. A Wikipedia article explains the development and use of the parody. Wikipedia, *Flying Spaghetti Monster*, [http://en.wikipedia.org/wiki/Flying\\_Spaghetti\\_Monster](http://en.wikipedia.org/wiki/Flying_Spaghetti_Monster).

395. *Id.*

396. Icess Fernandez, *Creature's Picture Irks Board of Ed Member*, WICHITA EAGLE, Apr. 13, 2006 ("State Board of Education member Connie Morris took exception Wednesday to a picture of a made-up creature that satirizes the state's new science standards hanging on a Stucky Middle School teacher's door. Fellow board member Sue Gamble told The Eagle that Morris asked for the picture to be removed. . . . The picture was still on the door at the end of the school day Wednesday.").

its members, including the editors of *Scientific American*, reflect the tacit support of mainstream science.<sup>397</sup>

Thus, MN appears to be a religious orthodoxy that is actually promoted with religious zeal. It favors one particular religious view over another and does not appear to be secular, neutral, or non-ideological.

VII. THE *KITZMILLER* COURT EMPLOYED A DISCRIMINATORY, EXCLUSIVE DEFINITION OF RELIGION RATHER THAN A FUNCTIONAL, INCLUSIVE DEFINITION IN ASSESSING THE RELIGIOUS EFFECT OF THE ID POLICY

A. *The Court Incorrectly Assessed the Religious and Scientific Effect of the ID Policy by Using an Incorrect Definition of Religion*

1. The Court Failed To Explicitly Define Key Terms

The ID Policy consists of a resolution directing that students be made aware of the ID alternative to evolution and of gaps or problems in evolutionary theory.<sup>398</sup> A statement was subsequently read to students that essentially stated the same thing in a bit more detail. The court held that it was a violation of the Establishment Clause because it amounted to an impermissible governmental endorsement of religion.<sup>399</sup> Although in reaching that conclusion it did not explicitly define the word religion, it did so implicitly by confining religion to only belief in the supernatural. The court thereby excluded from the concept of religion disbelief in a deity and other non-theistic religions and religious beliefs that depend on natural causes to explain life. Using this narrow concept of religion, it found that explanations that promote a supernatural cause are religion, while those limited to natural causes are science.<sup>400</sup>

If the court had used the functional definition embraced by the Third Circuit and the Supreme Court, it would have recognized that any *orthodoxy* about the cause of life, a matter of ultimate concern, is religious. Under this definition of religion, the effect of the ID Policy is to neutralize the existing religious orthodoxy of methodological naturalism with an attempt to objectively inform students of the state of our scientific knowledge about origins. As such, it is an educational policy that has a secular, neutral, and non-ideological effect.

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397. Reviews, *The Editors Recommend . . . The Gospel of the Flying Spaghetti Monster*, 294 SCI. AM. 94 (June 2006).

398. See *infra* Part VIII.

399. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005).

400. See *infra* Part VII.A.2.

## 2. The Court Implicitly Used a Discriminatory, Theistic Definition of Religion

The meaning of religion is critical to proper adjudication of the ID Policy. However, Judge Jones did not explicitly define the term or even consider an analysis of its meaning. The opinion omits any discussion of definitions used by other courts, including the functional definition used by the Third Circuit in *Malnak* and *Africa*. Absent from the opinion is any mention of any of the cases key to the definition of religion, including *Ballard*, *Fellowship*, *Washington Ethical Society*, *Torcaso*, *McGowan*, *Seeger*, *Welsh*, *Malnak*, *Africa*, *Moon*, *Patrick*, *Meyers*, *Smith I*, *Kaufman*, and *Weisman*.

Although the court does not specify with particularity the definition employed, it is obvious from the context in which the word is used that the court employed a discriminatory, theistic definition. As previously discussed throughout this article, a functional definition of religion includes conflicting doctrines and beliefs about the supernatural. Traditional theists believe in it while “Secular” Humanists and Atheists deny it. Judge Jones recognized the conflicting views, but put them into two different categories—one he called science and the other he called religion. By adopting this classification, he necessarily defined religion as having only theistic beliefs without any reference to non-theistic beliefs.<sup>401</sup> If he had defined religion functionally, he would have had to treat both of the competing and conflicting views as religious.

This classification is reflected in the court’s assignment of supernatural explanations of origins to religion and natural cause explanations of origins to science:

This rigorous attachment to “natural” explanations is an essential attribute to science by definition and by convention.<sup>402</sup>

[T]he ID Policy implicates and thus endorses religion . . . [because] ID is predicated on supernatural causation, as we previously explained and as various expert testimony revealed. ID takes a natural phenomenon and, instead of accepting or seeking a natural explanation, argues that the explanation is supernatural.<sup>403</sup>

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401. See *infra* notes 403-10 and accompanying text.

402. *Kitzmiller*, 400 F. Supp. 2d at 736.

403. *Id.* at 734, 736.



First, while encouraging students to keep an open mind and explore alternatives to evolution, [the ID Policy] offers no scientific alternative; instead, the only alternative offered is an inherently religious one, namely, ID.<sup>404</sup>

This assignment is inconsistent with a functional definition of religion, as that definition includes sets of beliefs based on both natural and supernatural explanations of origins.<sup>405</sup> The opinion also implicitly limits religion to only a theistic perspective by repeatedly equating ID, an alleged supernatural explanation, with an inference that advances religion or religion in general.<sup>406</sup> Since religion includes the beliefs of Atheists and “Secular” Humanists, the equation is faulty as ID does not advance those beliefs.

Similarly, the opinion implicitly excludes natural causation from religion by referring to evolutionary theory as a concept that has been called “antithetical” to “religion in general.”<sup>407</sup> If the court had used a functional definition rather than a theistic only definition, it could not characterize materialistic evolution as antithetical to religion in general. Natural causation is only antithetical to a particular kind of religion. The following are examples of the use of the term in a narrow, discriminatory sense:

Both Defendants and many of the leading proponents of ID make a bedrock assumption which is utterly false. Their presupposition is that evolutionary theory is antithetical to a belief in the existence of a supreme being and to *religion in general*.<sup>408</sup> [Evolution favors non-theistic religion and is therefore not “antithetical” to “religion in general.”]

To briefly reiterate, we first note that since ID is not science, the conclusion is inescapable that the only real effect of the ID Policy is the *advancement of religion*.<sup>409</sup> [The statement is incorrect if religion is inclusive.]

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404. *Id.* at 726.

405. *See supra* Figure 3 for a visual depiction of the functional and discriminatory definitions of religion.

406. See examples discussed in the next paragraph.

407. *Id.*

408. *Kitzmiller*, 400 F. Supp. 2d at 765 (emphasis added).

409. *Id.* at 764 (emphasis added).

*[T]he ID Policy implicates and thus endorses religion.*<sup>410</sup> [It does not endorse Secular Humanism or Atheism, hence the term “religion” excludes those religions.]

In evaluating the opinion, it is evident that the court views “religion” as a unitary concept rather than a set of competing theistic and non-theistic beliefs about matters of ultimate concern. Neither “non-theistic” nor “nontheistic” appear in the opinion. The adjective “theistic” only appears in quotes taken from ID documents. In practically all cases the word religion stands by itself without any modifier. Given the competing religious perspectives at stake, one would expect that occasionally “religion” would occur in its plural form, “religions”; however, it never does. Obviously, the court is treating religion in a narrow sense, perhaps only in its Christian sense.

### 3. The Court Implicitly Used a Discriminatory Definition of Religion Because It Assigned the Natural-Cause-Only Religious Explanation to Science

The court also implicitly used a discriminatory definition of religion because it employed a false dichotomy about the cause of life. It divided the causes into two possibilities: natural and supernatural. It then concluded that the attribute that distinguishes the two is that the supernatural explanation is religion, while the natural cause explanation is science. The dichotomy is false because belief in the natural cause explanation is also religious.

The court’s dichotomy is also false because the explanations presented by the ID Policy are not orthodoxies, but hypotheses based on logical inferences. So long as both hypotheses remain open to scientific challenge, they do not amount to religion. Indeed, the ID Policy actually brings to the discussion the third possible scientific explanation, “cause unknown,” which the court’s false dichotomy does not allow.

### 4. Use of a Discriminatory Definition of Religion Is Reflected in the Court’s Failure To Conduct a Serious Hostility Analysis

The use of the narrow discriminatory definition of religion is also reflected in the fact that the court failed to conduct a hostility analysis, although it recognized that “government may not be overtly hostile to religion.”<sup>411</sup> By assigning the material cause only explanation to science, the court implicitly characterized that view as secular rather than hostile to

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410. *Id.* at 734 (emphasis added).

411. *Id.* at 763.

religion. Hence, it apparently perceived no need to conduct a hostility analysis.

If the court had used a functional definition, it would have recognized that methodological naturalism, as applied to origins explanations, is religious and not secular. It would then have had to engage in an assessment not only of its hostile effect on the competing religious view, but also of a government endorsement of a non-theistic religious belief. By using a discriminatory definition of religion, it avoided both assessments and blindly accepted the assertion of the “scientific experts” that “the theory of evolution” “in no way conflicts with, nor does it deny the existence of a divine Creator.”<sup>412</sup> Even an ardent atheist and philosopher of science was left uneasy with the blind spot in the court’s eye. Following the decision, Daniel Dennett “found one point in [the decision] that left [him] uneasy”:

In the Conclusion, on page 136, Jones says[,] “Repeatedly in this trial, Plaintiffs’ scientific experts testified that the theory of evolution represents good science, is overwhelmingly accepted by the scientific community, *and that it in no way conflicts with, nor does it deny, the existence of a divine creator.*” . . . I must say that I find that claim to be disingenuous. *The theory of evolution demolishes the best reason anyone has ever suggested for believing in a divine creator. This does not demonstrate that there is no divine creator, of course, but only shows that if there is one, it (He?) needn’t have bothered to create anything, since natural selection would have taken care of all that.* Would the good judge similarly agree that when a defense team in a murder trial shows that the victim died of natural causes, that this *in no way conflicts with* the state’s contention that the death in question had an author, the accused? What’s the difference?<sup>413</sup>

Dennett’s conclusion seems self-evident. Indeed, recent scientific research discussed previously shows that strong natural causes explanations of origins generate automatic or subconscious negative evaluations of the “God” hypothesis and positive evaluations of the “no-God” hypothesis.<sup>414</sup>

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412. *Id.* at 765.

413. DAWKINS, DENNETT, KURTZ, JONES, RIDLEY, FORREST & HAACK, BUTTERFLIES AND WHEELS, THE KITZMILLER DECISION (2007), <http://www.butterfliesandwheels.com/articleprint.php?num=162> (emphasis added).

414. See *supra* Part III.C.2.

*B. Government May Not "Gerrymander" the Definition of Religion to Effect Religious Discrimination or Deny the Equal Protection of the Law.*

Often a concept may be defined in a particular way so that an otherwise impermissible end is achieved. Elbridge Gerry became the governor of Massachusetts in the early 1800s. It was noted that the voting districts in that state had very odd shapes. One looked very much like the shape of a salamander. It was alleged that it had been drawn by Governor Gerry to ensure his election. Thus, a new word was borne – gerrymandering.<sup>415</sup> It has been applied not only to tailor the definition of voting districts to exclude certain kinds of voters, but also to tailor definitions to favor certain viewpoints and disfavor others in a manner inconsistent with the core goal of a statute, such as the goal of religious neutrality embedded in the Establishment Clause.

An important distinction exists between popular definitions and a legal definition of religion. Popular definitions may reflect a bias that is inconsistent with a legal goal to properly regulate social and legal relations among people who themselves have sharply different attitudes about what religion is and the manifestations of it that are entitled to protection.<sup>416</sup> In *Welsh*, Justice Harlan provided two examples of religious gerrymanders that impermissibly exclude certain viewpoints while including others. One was the Selective Service Act that provided an exemption from combat for religious objectors. The word religion had been impermissibly gerrymandered to include theistic religious beliefs but to exclude non-theistic religious beliefs. Justice Harlan explained it this way:

However, having chosen to exempt, it cannot draw the line between theistic or nontheistic religious beliefs on the one hand and secular beliefs on the other. Any such distinctions are not, in my view, compatible with the Establishment Clause of the First Amendment. . . . *The implementation of the neutrality principle of these cases requires, in my view, as I stated in Walz v. Tax Comm'n, supra, "an equal protection mode of analysis. The Court must survey meticulously the circumstances of governmental categories to eliminate, as it were, religious gerrymanders. In any particular case the critical question is*

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415. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED (2003). The definition of "gerrymander" includes the interesting etymology of this word.

416. T. Jeremy Gunn, *The Complexity of Religion and the Definition of "Religion" in International Law*, 16 HARV. HUM. RTS. J. 189, 195 (2003).

whether the scope of legislation encircles a class so broad that it can be fairly concluded that [all groups that] could be thought to fall within the natural perimeter [are included].” The “radius” of this legislation is the conscientiousness with which an individual opposes war in general, yet the statute, as I think it must be construed, excludes from its “scope” individuals motivated by teachings of nontheistic religions, and individuals guided by an inner ethical voice that bespeaks secular and not “religious” reflection. It not only accords a preference to the “religious” but also disadvantages adherents of religions that do not worship a Supreme Being.<sup>417</sup>

Justice Harlan’s second example of a gerrymander was the Arkansas statute that gerrymandered origins education so that a legitimate scientific viewpoint was excluded from the class of all discussions of origins. By defining a class narrowly, others properly includable in the class are excluded. Such under-inclusion results in unequal treatment or discrimination under the law: “The Establishment Clause case that comes most readily to mind as involving ‘underinclusion’ is *Epperson v. Arkansas*. There the State prohibited the teaching of evolutionist theory but ‘did not seek to excise from the curricula of its schools and universities all discussion of the origin of man.’”<sup>418</sup>

Justice Harlan’s reference to *Epperson* is pertinent to *Kitzmiller*. *Kitzmiller* involves two gerrymanders. The definitions of both *religion* and *science* were implicitly gerrymandered to achieve a desired result through “underinclusion.” Religion was implicitly gerrymandered to exclude from the burdens of the Establishment Clause non-theistic religions. Similarly, the term “science” was gerrymandered to exclude legitimate criticisms of natural cause explanations of origins and thereby to insert in the realm of science a religious orthodoxy that promotes non-theistic religions in the guise of science. The combined effect of both gerrymanders permits the key tenet of Atheism to be taught exclusively in a public school for thirteen years to impressionable young minds. This would seem to be an impermissible constitutional effect.

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417. *Welsh v. United States*, 398 U.S. 333, 357-58 (1970) (Harlan, J., concurring in the result). See also *Larson v. Valente*, 456 U.S. 228 (1982); *Texas Monthly, Inc. v. Bullock*, 489 U.S. 1 (1989) (emphasis added) (citations omitted) (“The Court must survey meticulously the circumstances of governmental categories to eliminate, as it were, religious gerrymanders.”).

418. *Welsh*, 398 U.S. at 362; see also *supra* note 15.

VIII. THE COURT'S USE OF AN INCORRECT DEFINITION OF RELIGION  
RESULTED IN A FLAWED ESTABLISHMENT CLAUSE ANALYSIS

A. *The ID Policy*

In 2004, the Board of Directors of the Dover Area School District adopted a resolution that provided: "Students will be made aware of gaps/problems in Darwin's theory and of other theories of evolution including, but not limited to, intelligent design. Note: Origins of Life is not taught."<sup>419</sup>

Per this resolution, the School District subsequently caused the following statement to be read to a ninth-grade biology class:

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.<sup>420</sup>

Judge Jones concluded that the legality of the ID policy should be assessed using both the endorsement and *Lemon* tests. This article and the following analysis does not address whether his use or formulation of both tests are proper. Rather, it only questions the court's use of incorrect definitions of religion and science in applying those tests to the ID Policy.

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419. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 708 (M.D. Pa. 2005).

420. *Id.* at 708-09.

*B. The Endorsement Test: The ID Policy Neutralized a Religious Orthodoxy Rather Than Endorsing One*

Judge Jones explained the endorsement test under the Establishment Clause as one that combines the purpose and effect inquiries:<sup>421</sup>

The endorsement test emanates from the “prohibition against government endorsement of religion” and it “preclude[s] government from conveying or attempting to convey a message that religion or a particular religious belief is *avored* or *preferred*.”<sup>422</sup>

The court also concluded that to determine if the message is one that “in fact” favors or disfavors a particular religious belief, the court must determine “what message a challenged governmental policy or enactment conveys to a reasonable, objective observer who knows the policy’s language, origins, and legislative history, as well as the history of the community and the broader social and historical context in which the policy arose.”<sup>423</sup> Under this formulation, the reasonable observer is also deemed to be “an informed citizen who is more knowledgeable than the average passerby”<sup>424</sup> and who is “able to glean other relevant facts from the face of the policy in light of its context.”<sup>425</sup>

This formula requires the court to impute certain knowledge and information to a hypothetical reasonable observer. Obviously if the *objective* observer is to decide whether a message favors or disfavors a religious belief, he must be given the correct definition of religious belief.

As explained above, the definition Judge Jones implicitly assigned to the observer was an incorrect, exclusive, and discriminatory definition that includes belief in a supernatural cause of life, but excludes disbelief in a supernatural cause of life and belief that life derives from natural causes. Given this exclusive discriminatory definition assigned to religion, he relegated supernatural explanations of origins to religion and natural cause explanations to science. Since ID acknowledges that an inference to an intelligent cause for the awesome and nearly unbelievable sophistication of life necessarily leads one to a “master intellect” rather than “any intelligent actor known to exist in the natural world,” the court concluded that ID itself

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421. *See id.* at 714 (“As the endorsement test developed through application, it is now primarily a lens through which to view ‘effect,’ with purpose evidence being relevant to the inquiry derivatively.”).

422. *Id.* at 714 (quoting *County of Allegheny v. ACLU*, 492 U.S. 573, 593 (1989)).

423. *Id.* at 715.

424. *Id.* (quoting *Modrovich v. Allegheny County*, 385 F.3d 397, 407 (3d Cir. 2004)).

425. *Id.* (quoting *Modrovich*, 385 F.3d at 407).

favors supernatural explanations as such a “master intellect . . . strongly suggest[s] a supernatural deity.”<sup>426</sup> With this definition of religion, the objective observer has no real choice and must conclude that the ID Policy does indeed favor religion because it is an explanation that favors a supernatural cause of life.

The critical error in this analysis is that it incorrectly limits religion to merely belief in a supernatural cause for life. Religious beliefs include not only belief in a supernatural cause for life, but also a belief that life results only from natural causes. The natural cause belief functions in the lives of “Secular” Humanists and Atheists in the same way a supernatural belief functions in the lives of traditional theists. Both use those competing origin narratives to develop competing strategies for the way life should be lived.

<u>Explanation</u>	<u>Science Based</u>	<u>Validity Analysis</u>	<u>Informs or Indoctrinates</u>	<u>Religious Belief Supported</u>	<u>Religious Doctrine</u>	<u>Religiously Neutral</u>
1. Natural Cause (MN)	NO	Yes-valid	Indoctrinates	Atheistic	YES	NO
2. ID Policy						
a. Cause Unknown	Yes	None	Informs	Neutral	No	Yes
b. May be Natural Cause	Yes	None	Informs	Atheistic	No	Yes
c. May be Intelligent Cause	Yes	None	Informs	Theistic	No	Yes
3. Message of ID Policy	Yes	Educational	Informs	Neutral	No	Yes

**Figure 4: Message of the ID Policy Using Inclusive Functional Definition of Religion (Religion: Beliefs about the cause, nature and purpose of life) (Science: Seeks Reliable Explanations)**

The table above reflects the message of the ID Policy to the objective observer, assuming he has been provided the correct functional definition of religion. Based on that definition and other information imputed to him discussed in this article, the observer would initially recognize that prior to the adoption of the ID Policy, the school was using the religious orthodoxy of MN that natural causes explain life. The observer would then realize that the orthodoxy is not actually science based, as science is open-minded, not orthodox. He would also recognize that use of the orthodoxy actually causes the state to pass on the validity of the natural cause religious belief. By telling students it is practically unanimously accepted by the science community after rigorous testing, the state informs them that the non-

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426. *Id.* at 718.



theistic religious explanation is valid. This is impermissible under *Ballard* as well as *Fellowship*, *Seeger*, *Welsh*, *Malnak*, and *Smith I.*<sup>427</sup> The state may not pass on the validity of a religious tenet. But worse, not only does the existing policy pass on the validity of the explanation, but it also does not permit any other, including the cause unknown explanation. Hence, use of the orthodoxy indoctrinates rather than informs and is therefore not actually educational. It is a religious orthodoxy that favors Atheism over Theism, and is therefore not religiously neutral. But worse, the orthodoxy actually mandates only a strong materialistic or Atheistic explanation of origins, thereby triggering automatic and subconscious negative evaluations of God and positive evaluations of no God.<sup>428</sup>

The objective observer would immediately recognize the need to neutralize the existing origins curriculum and then ask whether the ID Policy had that effect. Does it neutralize an existing orthodoxy or does it simply replace one with another?

The first thing the observer would note is that the ID Policy provides two alternative answers to the same question, *What is the cause of life and its diversity?* Hence, it necessarily introduces a *third* explanation not permitted by the existing curriculum—*Cause unknown*. There are no known causes for the origin of the universe, the origin of the laws that govern its operation, the origin of life, the origin of the genetic code, or even the origin of the major body plans during the Cambrian Explosion.<sup>429</sup> During the Kansas Science hearings, experts on both sides of the debate failed to provide any known causes for those events and conceded that there were none. Hence, the Kansas Board inserted the cause unknown explanation into the science standards only to have it removed a year later when the definition of science was revised from an enterprise that seeks more adequate explanations to one that restricts explanation to natural causes.<sup>430</sup>

Actually, the cause unknown explanation, as shown in the chart, appears to be the best from an educational perspective. It is science-based, reliable, informative rather than indoctrinating, and religiously neutral. It is an explanation that opens minds rather than closing them. But more importantly, the ID Policy, by offering the two explanations as competing hypotheses or theories, does not implicitly pass on the validity of either. This is critical to any state-sponsored origins education. The state may not pass on the validity of religious beliefs. Hence, if it is to engage in an

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427. *See supra* Part III.B.3.c.

428. *See supra* Part III.C.2.

429. *See supra* Part II.C.

430. *See supra* notes 302-03 and accompanying text.

origins curriculum, it must ensure the curriculum does not do that. The only way to ensure that standard is met is to insert a policy like the ID Policy and ensure that the competing claims are objectively presented without commenting on the validity of either.

The objective observer would also recognize that the ID Policy does not seek to demote the natural cause explanation to the trivial and thereby pass on its validity. Instead, it identifies that explanation as a "well-tested explanation that unifies a broad range of observations."<sup>431</sup> The ID Policy also does not assert that the ID alternative is true or valid. Indeed, students are advised there is no requirement that they learn about the ID claim or that they read the Pendas book provided as a reference.<sup>432</sup> Given the two alternatives, students will realize that both explanations have competing religious implications. However, because they are being objectively informed of both views, a teaching that does not pass on the validity of either hypothesis might be constitutionally proper.

The objective observer would also recognize that the ID Policy does not seek to replace an existing religious orthodoxy with another. It does not seek to teach creation science.<sup>433</sup> Creation science seeks to prove a literal interpretation of the biblical account in Genesis that the earth is six thousand years old, was subjected to a world-wide flood, and is populated by species that are each separately created rather than the product of modification from the first form of life. ID simply is a test of natural cause explanations to explain the obvious apparent design of living systems. Although much data is inconsistent with a claim of common ancestry, the explanatory filter does not depend on showing it to be false.

The objective observer could note that ID derives from a common observation that many natural phenomena appear designed. That idea, with which most everyone agrees, arises from an observation of natural phenomena, not from a religious text. Furthermore, it is a claim that is also

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431. The part of the policy that implies that evolutionary theory is well tested implies that it has been well tested and has passed the tests with flying colors. As discussed *supra* Part VI.C.2., MN precludes the testing of evolutionary theory, and therefore the well-tested attribute is suspect. Actually, the ID Policy presents what appears to be an overly strong natural cause explanation.

432. OF PANDAS AND PEOPLE bears a copyright of 1993 and therefore omits important information since developed. However, compared to existing biology textbooks that employ MN without even disclosing its use, it may be far more objective. See JONATHAN WELLS, *ICONS OF EVOLUTION: SCIENCE OR MYTH: WHY MUCH OF WHAT WE TEACH ABOUT EVOLUTION IS WRONG* 29-59 (2000). A recent textbook limited only to biological evolution is STEPHEN C. MEYER, ET AL., *EXPLORE EVOLUTION: THE ARGUMENTS FOR AND AGAINST NEO-DARWINISM* (2007).

433. Creation science was the subject of *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982), and *Edwards v. Aguillard*, 482 U.S. 578, 603 (1987).

probabilistic, and therefore is not even inherently dogmatic. It seeks to inform and not indoctrinate, as it seeks to test the plausibility of natural cause claims. Although it supports theistic religions, it does not demand acceptance and is open to refutation. Hence, it is a scientific claim that has religious implications, just as the natural cause claim has religious implications. Objectively presenting the information ID brings to the discussion is consistent with good science, education that informs rather than indoctrinates, and religious neutrality. Denying it ensures the teaching of a religious dogma.

The court also concluded that the mind of a student should be imputed to the objective observer.<sup>434</sup> The state has a heightened responsibility to protect students from subtle religious messages, because they are more impressionable than adults and less effective at recognizing religious conduct.<sup>435</sup> This renders the ID Policy essential since the students will naturally infer from a natural-cause-only-curriculum that natural causes are valid while supernatural causes are not. However, there is another reason to impute to the mind of the student and actually provide the student with a functional definition of religion. If students are led to believe that religion is only theistic, then they might come to believe that it is permissible for the state to encourage them to embrace a belief in an only natural cause for life, while not realizing that such an orthodoxy is just as religious and faith-based as one designed to cause them to believe that life has derived from an intelligent cause. The natural cause belief can be expected to function in their lives just as supernatural explanations.

The subtle promotion of the non-theistic religious orthodoxy is reflected in National Science Education Standards that recommend schools nationwide teach children to understand by the end of the fourth grade that life, unlike human made objects, is not a design made for a purpose, but is merely a natural occurrence.<sup>436</sup> This is not a scientific conclusion. Rather, it is a very subtle religious orthodoxy. However, if students are led to believe that religion is just belief in God, then they can be expected to view this religious orthodoxy as not religious and therefore permissible for the state to promote and for the student to subsequently embrace and propagate

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434. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 724 (M.D. Pa. 2005) (“After a careful review of the record and for the reasons that follow, we find that an objective student would view the disclaimer as a strong official endorsement of religion.”).

435. *Id.* at 724-25.

436. See NATIONAL SCIENCE EDUCATION STANDARDS 138 (1996) (“ABILITIES TO DISTINGUISH BETWEEN NATURAL OBJECTS AND OBJECTS MADE BY HUMANS: Some objects *occur* in nature; others have been *designed and made by people to solve human problems* and enhance the quality of life. . . . Objects can be categorized into two groups, *natural and designed.*”) (emphasis added).

in public forums for the rest of the student's life. Such teaching would be just as religious as exclusively teaching the opposite, that life is in fact a design and not an occurrence. But worse, the exclusive teaching of the nontheistic religious orthodoxy is far more effective because it is being taught as science to the impressionable young student rather than the religion it actually is.

Hence, the message of the ID Policy is that it is an attempt to neutralize a pre-existing religious orthodoxy in an educationally appropriate manner and correct an otherwise impermissible religious effect. It is a step toward an origins science curriculum that is more secular, neutral and non-ideological.

*C. The Lemon Test: The ID Policy Has a Secular Purpose That Produces a Neutral Effect That Eliminates an Excessive Entanglement*

1. The Entanglement Prong

Typically, the entanglement prong of the *Lemon* test is discussed last or not at all because it is deemed comprehended by or folded into the primary effect analysis. However, priority should be given to this concept because any state-moderated discussion of origins will necessarily entangle it with religion. This is because the issue of origins addresses the ultimate of ultimate concerns.<sup>437</sup> Empirical evidence of the entanglement is provided by the research regarding strong and weak scientific explanations of origins that automatically generate corresponding weak and strong evaluations of God.<sup>438</sup> The entangling effect of a discussion of origins was noted by the Supreme Court in *Epperson v. Arkansas*: "Arkansas' law cannot be defended as an act of religious neutrality. Arkansas did not seek to excise from the curricula of its schools and universities all discussion of the origin of man."<sup>439</sup> This implies that if the discussion of origins is eliminated altogether, there will be no entanglement. In a concurring opinion, Justice

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437. See *supra* Part III.C.2.

438. *Id.*

439. *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968).

Arkansas' law cannot be defended as an act of religious neutrality. Arkansas did not seek to excise from the curricula of its schools and universities all discussion of the origin of man. The law's effort was confined to an attempt to blot out a particular theory because of its supposed conflict with the Biblical account, literally read.

*Id.*

Black also concluded that entirely removing an inherently controversial subject matter would remove a constitutional entanglement with religion.<sup>440</sup>

According to *Lemon*, an entanglement will become constitutionally problematic if it becomes “excessive.”<sup>441</sup> The word excessive implies a subjective concept with respect to which reasonable minds may differ. Arguably, an entanglement will not be excessive if the state provides an objective presentation designed to *inform* rather than indoctrinate the impressionable young mind with respect to a particular religious perspective.<sup>442</sup> However, it appears that use by the state of an orthodoxy like MN to “proscribe” “from the body of knowledge a particular segment” [ID theory and inadequacies of natural cause theory] because “it is deemed to conflict with a particular religious doctrine [methodological naturalism as applied to origins science]” would clearly amount to an excessive entanglement of the state with religion.<sup>443</sup>

*Edwards v. Aguillard* also suggests that the origins science entanglement with religion would not be excessive if the discussion is “comprehensive”:

If the Louisiana Legislature’s purpose was solely to maximize the comprehensiveness and effectiveness of science instruction, *it would have encouraged the teaching of all scientific theories about the origins of humankind*. But under the Act’s requirements, teachers *who were once free to teach any and all facets of this subject* are now unable to do so.<sup>444</sup>

The effect of MN is to limit teachers’ freedom to teach any and all facets of evolutionary theory, as it “restricts” explanations to only those supportive of non-theistic natural cause explanations. The ID Policy thus neutralizes an otherwise excessive state entanglement with religion. It advances the comprehensive formula expressed in *Edwards* by encouraging

440. *Id.* at 112 (Black, J., concurring) (“There is no reason I can imagine why a State is without power to withdraw from its curriculum any subject deemed too emotional and controversial for its public schools.”).

441. *Lemon v. Kurtzman*, 403 U.S. 602, 613-14 (1971) (“Finally, the statute must not foster ‘an excessive government entanglement with religion.’”); *see also* *Otero v. State Election Bd. of Okla.*, 975 F.2d 738 (10th Cir. 1992).

442. *See* *Malnak v. Yogi*, 592 F.2d 197, 215 (3d Cir. 1979); *Epperson*, 393 U.S. at 106.

443. *Epperson*, 393 U.S. at 103.

The overriding fact is that Arkansas’ law selects from the body of knowledge a particular segment which it proscribes for the sole reason that it is deemed to conflict with a particular religious doctrine; that is, with a particular interpretation of the Book of Genesis by a particular religious group.

*Id.*

444. *Edwards v. Aguillard*, 482 U.S. 578, 588-89 (1987) (emphasis added).

teachers to invite a critical analysis of natural cause only theory.<sup>445</sup> Thus the decision in *Kitzmiller* actually renders the state's entanglement with religion excessive, as it causes the state to suppress relevant information to promote one of competing religious perspectives.

## 2. The Effect Prong

Logically, the effect prong should be considered before the purpose prong because manifested effects of a choice often reveal its purpose. In *Kitzmiller*, Judge Jones relied on the effect test announced by the Supreme Court in *Texas Monthly v. Bullock*.<sup>446</sup>

The core notion animating the requirement that . . . [an official act's] "principal or primary effect . . . be one that neither advances nor inhibits religion," is not only that government may not be overtly hostile to religion but also that it may not place its prestige, coercive authority, or resources behind a single religious faith or behind religious belief in general, compelling nonadherents to support the practices or proselytizing of favored religious organizations and conveying the message that those who do not contribute gladly are less than full members of the community.<sup>447</sup>

Using a theistic definition of religion, Judge Jones viewed the primary effect of the ID Policy as one that inserted a religious faith or religious belief into the otherwise secular activity of teaching scientific knowledge. The error implicit in this analysis is the assumption that the ID Policy responds to a purely secular agenda already neutral to religion. Actually, it is a response to an existing religious faith or belief in natural causes being taught via the orthodoxy of methodological naturalism and scientific materialism. That existing curriculum is religiously ideological, not secular or neutral. In this context, the effect of the ID Policy is not to insert a non-neutral orthodoxy. Rather, the purpose is to neutralize one. The orthodoxy is neutralized simply by encouraging teachers to inform students not only of the evidence supporting the standard theory of origins, but also of weaknesses or problems with the theory and the existence of a competing alternative. This analysis is critical to ensure that the state does not pass on the validity of a religious belief.

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445. *See id.*

446. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 764 (M.D. Pa. 2005); *Texas Monthly, Inc. v. Bullock*, 489 U.S. 1, 9 (1989).

447. *Texas Monthly, Inc.*, 489 U.S. at 9 (quoting *Lemon v. Kurtzman*, 403 U.S. 602, 612 (1971)).

Thus, the *effect* of the ID Policy is to objectively *inform* rather than allow continuance of indoctrination. The function of the orthodoxy of MN is to suppress relevant information, because if all explanations are restricted to natural causes, then knowledge inconsistent with that restriction must be excluded. The effect of MN is to indoctrinate or imbue students with a belief in the only permitted explanation.<sup>448</sup> According to the Supreme Court's ruling in *Mitchell v. Helms*, such a program of indoctrination is inconsistent with the effect prong of the *Lemon* test: "Looking to our recently decided cases, we articulated three primary criteria to guide the determination whether a government-aid program impermissibly advances religion: (1) *whether the aid results in governmental indoctrination . . .*"<sup>449</sup>

In *Mitchell*, the Court was concerned with whether educational materials and services provided with government funding to disadvantaged students in private schools might involve content that would indoctrinate in a religious perspective. The Court found that the program in question would not indoctrinate because the policy required the content to be "*secular, neutral and non-ideological.*"<sup>450</sup> The word secular has been interpreted to mean that the content will not "*advocat[e] or oppos[e] any particular religious views or belief.*"<sup>451</sup> Neutral and non-ideological means that the content will not advocate for a "single perspective on a controversial issue."<sup>452</sup> MN permits only a materialistic origins narrative that promotes certain religious views while undermining others. It does this by mandating a single materialistic perspective on a controversial religious subject.

The two Supreme Court cases dealing with origins, *Epperson* and *Edwards*, hold that the official under inclusion forced by MN, is contrary to the constitutional need for a comprehensive scientific discussion of human origins. Both cases deal with an official suppression of an idea relating to origins. They stand for the proposition that origins discussions should either be comprehensive or not conducted. "[T]he State may not adopt

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448. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED (3d. ed. 2003), defines "indoctrination" as: "2: to cause to be impressed and usually ultimately imbued (as with a usually partisan or sectarian opinion, point of view, or principle) \*had to be indoctrinated with the will to win— J.P.Baxter b.1893\* \*indoctrinating young people with alien ideologies\*: cause to be drilled or otherwise trained (as in a sectarian doctrine) and usually persuaded \*indoctrinate the immigrants in a new way of life\*."

449. *Mitchell v. Helms*, 530 U.S. 793, 844 (2000) (emphasis added).

450. *Id.* at 862.

451. National Assessment Governing Board, "Collection and Reporting of Background Data by the National Assessment of Educational Progress Policy Statement" (NAGB, May 18, 2003), available at [www.nagb.org/policies/PoliciesPDFs/Assessment%20Development/collection-report-backg-data.pdf](http://www.nagb.org/policies/PoliciesPDFs/Assessment%20Development/collection-report-backg-data.pdf) (last visited Sept. 30, 2008) (emphasis added).

452. *Id.*

programs or practices in its public schools or colleges which 'aid or oppose' any religion. This prohibition is absolute. It forbids alike the preference of a religious doctrine or the *prohibition of theory which is deemed antagonistic to a particular dogma.*"<sup>453</sup> The effect of the ID Policy was to neutralize a religious orthodoxy – but the effect of the *Kitzmiller* Court's ruling has established one.

### 3. The Secular Purpose Prong

According to Judge Jones: "As the Supreme Court instructed in *Edwards, Lemon's* purpose prong 'asks whether government's actual purpose is to endorse or disapprove of religion. A governmental intention to promote religion is clear when the State enacts a law to serve a religious purpose.'"<sup>454</sup> An analysis of the ID Policy starts with the recognition that it addresses a pre-existing religious orthodoxy that promotes non-theistic religions. Its effect is to add information relevant to the adequacy of an existing natural/material cause only orthodoxy. The question then becomes whether a valid secular purpose inheres in seeking to provide students with relevant information about the orthodoxy and thereby neutralize it. By providing that additional relevant information, has government evidenced an intention to advance education or religion?

Typically, writings manifest intention. The intention manifested by the ID Policy is clearly one that seeks to add information to a curriculum that artificially restricts or excludes it. The information consists of two things. The first is the fact that an alternative or challenge to evolution actually exists. The fact of the existence of the challenge was acknowledged in a paper published by the National Academy of Science in 2007: "[A]s Francisco Ayala discusses in this issue of PNAS (19), the challenge for evolutionary biologists is to explain how seemingly well designed features of organism, where the fit of function to biological structure and organization often seems superb, is achieved without a sentient Designer."<sup>455</sup>

The second item of information is that evolutionary theory driven by natural causes only contains gaps or problems. This is true because biologists have yet to explain how the apparent design of living systems has been achieved without a sentient Designer. Both items of information are highly relevant to the orthodoxy of MN that life results only from natural

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453. *Epperson v. Arkansas*, 393 U.S. 97, 106-07 (1968) (emphasis added).

454. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 746 (M.D. Pa. 2005).

455. Adam S. Wilkins, *Between "Design" and "Bricolage": Genetic Networks, Levels of Selection, and Adaptive Evolution*, in PNAS, *supra* note 53, at 8591 (May 15, 2007).



causes. Thus, the purpose of the policy is to inform, rather than to indoctrinate. That is a valid educational purpose.

During the Kansas Science Hearings, Warren Nord, a professor of religion and education at the University of North Carolina at Chapel Hill, testified that a liberal education requires that students be informed of information relevant to both sides of an existing controversy. He testified that whether ID was viewed as science, philosophy, or religion, it provided important information relevant to the discussion of origins. In his view, providing the information was secular because it contained information relevant to a controversial and otherwise ideological discussion. Also, the provision of the information generated a neutral religious effect. Without the information, the curriculum would effectively indoctrinate students with a materialistic belief that was not religiously neutral.<sup>456</sup> A recent article by Philosopher of Science Thomas Nagel reaches the same conclusion.<sup>457</sup> The research regarding the effect of strong and weak scientific explanations of origins indicates that an objective explanation would be the most secular while any explanation rigged to be either strong or weak would be religious.<sup>458</sup>

When religion is defined functionally, it becomes apparent that the ID Policy is one that manifests an intention to provide information highly relevant to a discussion of a subject that has unavoidably religious implications to students. That policy has the effect of neutralizing a religious orthodoxy. Hence, the ID Policy has a clear secular purpose that produces a secular effect that removes an excessive state entanglement with religion.

Before closing the commentary on the purpose prong, it seems that any assessment of the purpose of an official depends on the official's actual understanding of the meaning of "religion." In *Welsh*, the Court recognized that the public often has an incorrect understanding of the comprehensive nature of the definition of religion.<sup>459</sup> This misunderstanding is likely to cause those acting on behalf of government to misapply the definition as well. School Boards may believe religion is just belief in God and worry about inserting objectivity into a discussion that is already religious. Others seeking strict adherence with the law might also believe they are acting with a secular motive, but may actually be promoting a religious orthodoxy.

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456. DEE SCHOENBERGER, *THE SILENCED HEARINGS* 50-51 (2008).

457. Nagel, *supra* note 329 and accompanying text.

458. *See supra* Part III.C.2.

459. *Welsh v. United States*, 398 U.S. 333, 341 (1970); *see discussion of Welsh supra* in Part III.B.3.c.x.

Hence, in determining the purpose of the actor, it is important to know at the time of the action how the actor is defining religion.

In *Kitzmiller*, it unfortunately appears that few, if any, used the term correctly. Hence, an assignment of the actual purpose to the Dover Board may be problematic.<sup>460</sup> In *Welsh*, the Supreme Court inferred the purpose based on the defendant's prior written statement to the selective service board of what he believed.<sup>461</sup> The ID Policy seems to serve the same function as that statement. On its face it exhibits a secular purpose, given the nature of the religious orthodoxy that it seeks to neutralize.

*D. The Use of MN in Origins Science Education Appears Inconsistent with the Free Exercise Rights of Students and Parents*

*Kitzmiller* did not address any Free Exercise claim, although it would have been appropriate if the court had permitted theistic parents and students to intervene to oppose the removal of the ID Policy and the promotion of the religious orthodoxy of MN.

The Free Exercise Clause has been applied in cases where a governmental regulation has effectively prohibited particular religious practices. However, under the Supreme Court's holding in *Employment Division v. Smith*, a Free Exercise claim may be denied if the state can show that the law or regulation is one of general applicability and is neutral as to religion.<sup>462</sup> Otherwise, it must clearly show both a compelling state interest for the law or practice and that it is narrowly tailored to achieve that compelling interest.<sup>463</sup>

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460. It is difficult to infer intention or purpose when the actor is actually misinformed. The actor might have actually thought the gun was unloaded or that a policy was illegal, when it was not only legal, but necessary.

461. *Welsh*, 398 U.S. at 341-42; *see also supra* Part III.B.3.c.x.

462. *Emp. Div., Ore. Dept. of Human Res. v. Smith*, 494 U.S. 872, 879 (1990) (holding that although it is constitutionally permissible to exempt sacramental peyote use from the operation of drug laws, it is not constitutionally required).

463. The burden on the state to show a compelling state interest, once either neutrality or general applicability has not been demonstrated, is severe. Only in rare cases will the analysis survive this scrutiny. This is made clear in both *Smith*, 494 U.S. at 879, and in *Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520 (1993), where the Court said:

To satisfy the commands of the First Amendment, a law restrictive of religious practice must advance "interests of the highest order," and must be narrowly tailored in pursuit of those interests. . . . The compelling interest standard that we apply once a law fails to meet the *Smith* requirements is not "water[ed] . . . down" but "really means what it says." . . . A law that targets religious conduct for distinctive treatment or advances legitimate governmental interests only against conduct with a religious motivation will survive strict scrutiny only in

The assumption of public education “is that after the individual has been instructed in worldly wisdom he will be better fitted to choose his religion.”<sup>464</sup> However, an application of MN to public school curriculum promotes a religious orthodoxy, depriving children of the right to choose. It does that by prohibiting the child to be informed of information highly relevant to the choice. Similarly, theistic parents have the right to direct the religious education of their children so they will become theists. The promotion of MN effectively prohibits their exercise of that right as the state becomes the director of a child’s non-theistic religious education. As recognized by Judge Jones and by the Supreme Court in *Edwards*, student attendance is “involuntary” or mandatory, and parents are legally compelled to submit their children to the indoctrination if they lack the financial or other resources to provide for an educational alternative.<sup>465</sup>

Coercion seems implicit and the application of MN to public origins science education does not appear narrowly tailored to achieve any compelling educational interest. Hence, a denial of a free exercise claim would require a showing that the policy of promoting MN was one of general applicability and one that is neutral as to religion. A discriminatory definition of religion would seem to make that defense superficially available. Using that discriminatory definition, Judge Jones found that MN is just secular science. Given that classification, MN can be superficially characterized as a part of a general science education program that is generally applicable to all students. Since it only amounts to secular science, it is neutral as to religion because a secular activity is neutral by definition. Of course, none of these arguments pertain when religion is properly defined. A proper use of the term within the context of a free exercise claim would classify MN as a religious orthodoxy, rather than a scientific theory or method that is not generally applicable or religiously neutral.

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rare cases. It follows from what we have already said that these ordinances cannot withstand this scrutiny.

*Id.* at 546 (citations omitted).

464. *Everson v. Bd. of Educ.*, 330 U.S. 1, 23-24 (1947) (Jackson, J., dissenting); see *supra* Part I.

465. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 723 (M.D. Pa. 2005) (“Families entrust public schools with the education of their children, but condition their trust on the understanding 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. Students in such institutions are impressionable and their attendance is involuntary.”) (citing *Edwards v. Aguillard*, 482 U.S. 578, 583-84 (1987)).

## VIII. CONCLUSION

The error of the *Kitzmiller* Court was to fail to recognize that the ID Policy brings to light the core issue in a long-standing conflict between two competing religious perspectives. One perspective is that life is related to the world through a creator. The other holds that life just “arises from materials and forms of the past” due to material or natural causes. Both are inherently religious as views about origins affects views about the future, the purpose of life, and how life should be lived. The court obviously recognized the existence of a conflict but did not recognize that both sides of the issue are inherently religious. Had the court applied the functional definition of religion adopted by its Third Circuit peers and the Supreme Court, it would have recognized that methodological naturalism/scientific materialism causes public education to favor or endorse one religious perspective over the other. If origins science is to be taught at all, it must be taught objectively. An inclusion of ID aids that concept because it is primarily a scientific critique of the adequacy of natural cause theory itself.

Use of an inclusive functional definition of religion should bring coherence to First Amendment practice. It is now incoherent because the vulgar or popular definition is itself discriminatory. If government is to be actually neutral in the vigorous competition between theists and non-theists, it must use the inclusive definition. As Judge Adams pointed out in *Malnak*, a narrow definition will cause government to take sides and aid the non-theist over the theist in the education of children.<sup>466</sup> That definition will implement the goal of “Secular” Humanists and Atheists to insert a new religion into public education in the guise of science. As the realm of science has expanded to encompass practically every area of human behavior, there is hardly a subject in public education that cannot be brought under that umbrella. An inclusive definition of religion narrows the scope of what is secular. This will necessitate a reexamination of the subject matter of public education to identify curricula that address other religious questions about the cause, nature, and purpose of life. In addition to origins education, an inclusive definition should cause public education to ensure that other religiously charged curricula are designed and implemented to achieve a truly secular, neutral, and non-ideological effect.

Some Theists reject the idea of a religiously neutral government for a variety of reasons. Their concern is justified when government uses a discriminatory definition of religion that excludes only theistic views from the “secular” sphere. Perhaps, those concerns will dissolve with the functional definition, for it requires their views to be objectively considered

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466. See *supra* Part III.B.3.c.iii.

if the competing non-theistic views are to be allowed. Competition of that sort is good, for it should bring us closer to truth.