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ARTICLE

HAS EVOLUTION DISPROVED GOD?: THE FALLACIES IN THE APPARENT TRIUMPH OF SOFT SCIENCE

Tim Newton[†]

Since Darwin published *The Origin of Species* in 1859, the controversy over the origin of life has raged between science and religion.¹ Recently, it seems that a consensus has been reached; even many conservatives have conceded that evolution should be taught to the public, both in schools and through government-sponsored organizations, and that creationist views should not.² The logic is simple: evolution is science, whereas historic views of creation are religious. From there, the logical conclusion is that scientific learning such as evolution should not be censored, but teaching religious dogma such as creationism violates freedom of religion.³

This consensus, like compromise, may keep the peace. But it sacrifices educational and intellectual integrity on the altar of political correctness. Government sanction should not depend on the perceived motives of the adherents of a particular view, but on the objective truth of the ideas and conclusions themselves.

No fair-minded person would argue that objectively verifiable scientific learning should be censored. Likewise, nearly everyone recognizes the danger in allowing government sponsorship of purely religious ideas. The government should not be in the business of defining religious beliefs for people, since religious views are personal.

But no one seems to be asking the real question, which is whether *any* theory of origins can be proven to a high enough standard to merit government sponsorship. When scientific conclusions collide with religious beliefs, a more careful examination should be made to ensure that the conclusions scientists have drawn are irrefutable based on the results of scientific research. Unfounded science should not be given government sanction for use as a weapon for destroying religious beliefs. The entire argument for allowing government-sponsored teaching of evolution

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1. *150 Years After 'On the Origin of Species', Science and Religion Still Fight Over Evolution*, Scientific Blogging (Jan. 9, 2009), <http://www.scientificblogging.com/print/36322> (last visited Nov. 13, 2009).

2. See generally MICHAEL DOWD, THANK GOD FOR EVOLUTION (2007); Michael Shermer, *Darwin on the Right: Why Christians and Conservatives Should Accept Evolution*, SCI. AM., Oct. 2006, at 38.

3. 68 AM. JUR. 2D *Schools* § 365 (2008).

depends on the premise that evolution has been scientifically established. But what if evolution is not the objectively verifiable scientific fact it claims to be?

I. INTRODUCTION: THE ROLE BURDEN OF PROOF HAS PLAYED IN THE DEBATE

The creation versus evolution debate first came to a head in the case of *Scopes v. State*.⁴ The Tennessee legislature had passed a law banning the teaching of evolution in schools.⁵ The American Civil Liberties Union sought to challenge this law and found, through an advertisement in a local newspaper, a man who would agree to say he taught evolution.⁶ Scopes was a substitute teacher and a coach who may not have ever actually taught evolution.⁷ Nevertheless, the issue was joined, and two prominent attorneys, Clarence Darrow and William Jennings Bryan, appeared on behalf of the evolutionists and the creationists, respectively.⁸

At trial, Darrow sought to show the biblical record could not be proven by mocking it.⁹ By the end of the trial, Bryan, who, in an unprecedented move, had taken the stand as an expert for the prosecution, admitted he did not have scientific answers for various accounts contained in the Bible and acknowledged that some events recorded in the Bible are miraculous.¹⁰

Scopes was convicted and the case went up on appeal.¹¹ The appellate court refused to interfere in the legislature's ban on the teaching of evolution, but threw out Scopes' fine on a technicality.¹² Subsequent cases have ruled that banning the teaching of evolution is unconstitutional.¹³

But the real historic impact of the *Scopes* trial has come from Bryan's inability to answer Darrow's questions. William Jennings Bryan broke under the pressure of Darrow's implied demand that he have an answer for

4. *Scopes v. State*, 289 S.W. 363, 363 (Tenn. 1927).

5. Joyce F. Francis, Comment, *Creationism v. Evolution: The Legal History and Tennessee's Role in That History*, 63 TENN. L. REV. 753, 757 (1996).

6. *Id.* at 768.

7. Kevin P. Lee, *Inherit the Myth, How William Jennings Bryan's Struggle with Social Darwinism and Legal Formalism Demythologize the Scopes Monkey Trial*, 33 CAP. U. L. REV. 347, 372-73 (2004).

8. Francis, *supra* note 5, at 769.

9. Lee, *supra* note 7, at 374 (quoting Darrow as saying at one point, "I am examining you on your fool ideas that no intelligent Christian on earth believes!").

10. Francis, *supra* note 5, at 769 n.124.

11. *Id.* at 770.

12. *Id.*; *Scopes v. State*, 289 S.W. 363, 367 (Tenn. 1927).

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

every question Darrow had. Essentially, Bryan's answers demonstrated that he was unable to remove all doubts about the creation account.¹⁴ Bryan was humiliated by the incident, and he died shortly thereafter.¹⁵ The perception of the general public since then is that the creation account has been exposed by scientists as a religious myth.

This incident highlights the important role that burden of proof has played in the origins debate. When Clarence Darrow argued that the biblical account of creation is not provable in the *Scopes* trial, he did not prove, conversely, that evolution is objectively verifiable.¹⁶ Instead, being an astute criminal defense lawyer, he recognized that Scopes could not be convicted unless his guilt was proven beyond reasonable doubt. In other words, criminal defendants may not be found guilty unless there is no reasonable explanation for the evidence other than the defendant's guilt.¹⁷ What Darrow attempted to show in the *Scopes* trial is that there may be alternative explanations to the biblical account of creation, such as evolution, which appear reasonable to some people. Many believe he succeeded in that endeavor. But this demonstrates only that biblical creation cannot be absolutely proven. It does not mean Darrow proved evolution.

Darrow took advantage of a legal concept called burden of proof in the *Scopes* trial.¹⁸ Legal theories may not seem relevant to a discussion about science. However, legal analysis can inform the discussion for two reasons. First, the controversy does not arise from the methods scientists use in conducting research, but from the conclusions scientists have drawn from their research that conflict with pre-existing understanding of history and religion.¹⁹ Since the primary issue is what official position the government should take as to conclusions drawn by scientists, a public policy issue, legal analysis is appropriate. Second, it is the province of the legal profession to develop arguments and to analyze and resolve conflicts. After

14. Lee, *supra* note 7, at 375.

15. *Id.*

16. In fact, Darrow, who answered Bryan's questions after trial because the judge had stopped it, responded to most of Bryan's questions with an agnostic's "I don't know." See *Evolution Battle Rages Out of Court*, N.Y. TIMES, July 22, 1925, at 2.

17. See, e.g., *State v. Payne*, 440 A.2d 280, 282-83 (Conn. 1982).

18. Burden of proof is defined as "[a] party's duty to prove a disputed assertion or charge." BLACK'S LAW DICTIONARY 209 (8th ed. 2004).

19. History is defined as "a branch of knowledge that explains past events." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 549 (10th ed. 2001). Religion is defined as "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." Dictionary.com, Religion, <http://dictionary.reference.com/browse/religion> (last visited Mar. 21, 2009).

all, questions of origins have to do with past events. Legal rules are designed to bring out the truth about past events, whereas science focuses on verifiable conditions in the present.²⁰ Legal trials are designed to establish an official record about events that cannot directly be observed by others.²¹ Thus, legal analysis is appropriate to the question of the public policy implications of scientific research, just as the focus of scientists is on conducting the research itself.

In the *Scopes* trial, Darrow's arguments highlighted the inability of the state to prove that the biblical record of origins is true. The context of the *Scopes* trial was much different from today. The state legislature had passed a statute criminalizing the teaching of evolution.²² Thus, the state had the burden of proof, which means that the state had to prove its case whether or not *Scopes* put up any evidence.²³ Although the reasonable doubt standard was not technically relevant since *Scopes* admitted he taught evolution, Darrow's arguments were calculated to show that since the creation account could not be absolutely proven, it was unjust to criminalize the teaching of alternate views.²⁴

But now the law has taken the side of evolution. Evolution is taught in schools and benefits from both state funding and state approval, while creationist views are suppressed.²⁵ Federal courts, including the United

20. See 75 AM. JUR. 2d *Trial* § 2 (2009) ("A trial is a search for truth."). In legal trials, witnesses are called to testify as to events they have experienced. 81 AM. JUR. 2d *Witnesses* §§ 73, 160 (2009). If it were possible to contemporaneously observe or scientifically determine the facts being tried, there would be no point in calling witnesses. See also Introduction to the Scientific Method, http://teacher.pas.rochester.edu/PHY_LABS/AppendixE/AppendixE.html, § V. ¶ 3 (explaining that the scientific method requires isolation of the phenomena and repetition of the measurements, which cannot be accomplished on past events).

21. For this reason, for example, Federal Rules of Evidence 801-807 are designed to prevent introduction of inappropriate hearsay evidence to prove a matter that cannot be observed at trial.

22. See *Scopes v. State*, 289 S.W. 363, 363 (Tenn. 1927).

23. 29 AM. JUR. 2D *Evidence* § 174 (2008).

24. See Lee, *supra* note 7, at 372-73.

25. See 68 AM. JUR. 2D *Schools* § 365 (2008); Jared M. Haynie, *Breaking Evolution's Monopoly on Origins: Self-Governance, Parental Rights, and Religious Viewpoints in the Public Square—A Response to Kevin Trowel's Divided by Design*, 7 AVE MARIA L. REV. 239, 243 (2008) ("Today, evolution enjoys a virtual monopoly on origins because public schools are strictly forbidden from teaching creationism, 'creation-science,' and even, in some cases, intelligent design." (footnotes omitted)); Stephen W. Trask, *Evolution, Science, and Ideology: Why the Establishment Clause Requires Neutrality in Science Classes*, 10 CHAP. L. REV. 359, 360 (2006) ("Nearly all public schools teach evolutionism without incorporating alternatives to evolutionism into the curriculum."); South Carolina Department

States Supreme Court, have rejected proposals for teaching both creation and intelligent design as alternate viewpoints.²⁶ Yet the same experts that have testified on behalf of evolutionists in legal cases challenging creationism and intelligent design have written textbooks that include sections on evolution and have appeared in person before school boards to promote their products.²⁷ School boards have rejected challenges to the use of textbooks containing explanations of evolution after hearing from these same experts.²⁸

But, just as in 1925 the state took the side of creationism and could not meet its burden of proof, it is now evolutionists who are attempting to claim a monopoly and suppress other explanations of origins. Following Darrow's logic, the burden of proof should be reversed. The government should not take an official position on any controversial issue, particularly where that position could chill the exercise of religious beliefs, unless it is clear that the religious beliefs are incorrect.²⁹ Indeed, just as in 1925, so also today the burden of proof should be on the proponents of any view that seeks official sanction and attempts to suppress alternate explanations.³⁰

Many people, like Clarence Darrow, take the position that those who believe the biblical record must prove beyond a shadow of a doubt that God exists and the Bible is true, and that any questions that remain unanswered tend to show their faith is invalid. As will be shown below, this is unfair to believers. The truth is that past events and spiritual realities are impossible to prove absolutely. This is why trials at law are tried to a jury—no one can absolutely prove what happened, so a jury is asked to make the decision.³¹ Fairness requires that those who attempt to place a burden of absolute proof

of Education, Biology 1 Course Standards, http://ed.sc.gov/agency/Standards-and-Learning/Academic-Standards/old/cso/Science/standards/biology_course_standards.pdf (last visited Nov. 13, 2009).

26. *Edwards v. Aguillard*, 482 U.S. 578 (1987); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982).

27. Melissa Shube, *Brown Professor Defends Evolution Textbook in South Carolina*, BROWN DAILY HERALD, Jan. 25, 2008, available at <http://media.www.browndailyherald.com/archives> (last visited Nov. 13, 2009).

28. *Id.*

29. *Edwards*, 482 U.S. at 624 (Scalia, J., dissenting) (explaining the detrimental effects of teaching only evolution in schools).

30. U.S. CONST. amend. I (“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof . . .”). Government cannot impose a position on religious subjects that suppresses a particular religious view.

31. *United States v. Bayless*, 921 F. Supp. 211, 213 (S.D.N.Y. 1996) (discussing the role of the jury as “factfinder” of past events).

on believers should also be required to prove their views absolutely before being allowed to teach them in schools.

Suppose the shoe had been on the other foot in the *Scopes* trial. Can evolution withstand the scrutiny of searching questions such as those asked by Darrow? The answer is, “No.” Proponents of government-sponsored teaching of evolution have relied on a series of subtle and deceptive fallacies. Upon careful examination, these fallacies implode, one by one. A careful investigation reveals that: (1) evolution cannot be proven to the level of scientific certainty to which it claims to have attained, and (2) creationist views are provable to the same standard as evolution.

II. FALLACY #1: “EVOLUTION IS A FACT”

Evolutionists often claim that “evolution is a fact.”³² The validity of this claim depends on what is meant by the words “fact” and “evolution.” Although these words do not seem to be ambiguous, the claim that “evolution is a fact” is a limited claim—something the average person may not understand.

A. What Is a “Fact”?

Every lawyer knows that various standards of proof are used for various situations.³³ These legal standards have developed from necessity based on different situations the law addresses. The highest possible standard of proof is absolute proof, or 100% certainty. It is rarely possible to prove anything absolutely, but probably the best example is in math. The equation $2 + 2 = 4$ can be proven simply by subtracting: $4 - 2 = 2$. Simple math equations such as this can be proven absolutely; there is no other possible alternative. In scientific terms, the closest example is possibly the law of gravity. Anyone can test it—simply pick up an object and drop it. However, absolute proof is rarely achievable.

32. See, e.g., *Edwards*, 482 U.S. at 624 (Scalia, J., dissenting) (citing evidence that “[e]volution . . . is misrepresented as an absolute truth”); Richard Dawkins & Richard Harries, *Education: Questionable Foundations—Providing Millions of Pounds to Schools To Teach Creationism Is Dangerous, Say Atheist Richard Dawkins and Richard Harries, the Bishop of Oxford*, SUNDAY TIMES, June 20, 2004, <http://www.timesonline.co.uk/tol/news/article447509.ece?print=yes&randnum=1151003209000>; Laurence Moran, *Evolution Is a Fact and a Theory*, The TalkOrigins Archive, <http://www.talkorigins.org/faqs/evolution-fact.html> (quoting Stephen J. Gould’s statement that “evolution . . . is also a fact”) (last visited Nov. 13, 2009).

33. See generally 29 AM. JUR. 2D *Evidence* § 173 (2008).

Just below the standard of absolute proof is the “reasonable doubt” standard used in criminal trials. Essentially, the state must prove its case to the extent that any alternative explanations are not reasonable.³⁴ For example, a criminal defendant in a larceny case could argue that a Martian took the stolen laptop from the victim and put it in the defendant’s possession, with the defendant’s fingerprints on it. A jury would likely find that such an explanation is not reasonable and convict the defendant anyway. But if the defendant showed he had a similar laptop and picked up the victim’s, thinking it was his own, a jury may acquit on the basis that reasonable doubt exists as to whether the defendant intended to steal.

Reasonable doubt is a high standard because any reasonable alternative prevents the State from proving its case.³⁵ The reason such a high standard is used in criminal cases is that people should not be punished unless there is no other reasonable explanation for the crime.³⁶ But facts established in criminal trials need not be absolutely proven. Absolute proof is often unavailable, since no witnesses may have directly seen what happened.

The lowest standard of affirmative proof accepted in a court is the “preponderance” standard used in civil trials. Under this standard, facts can be established even if a lot of evidence seems to point the other way, so long as there is a slight bit more evidence in favor of the conclusion reached.³⁷ This is a much lower standard because a jury may have many doubts, but nevertheless feel that the balance tips ever so slightly in favor of one of the parties. A middle standard, “clear and convincing evidence,” falls somewhere between the “reasonable doubt” and the “preponderance” standards.³⁸

The point is that “facts” are not always absolutely provable. What is meant by a “fact” depends on the amount and quality of information available to support the conclusion reached.³⁹

Suppose Susie tells her teacher that Johnny pulled her hair. If the teacher saw Johnny do it, she can verify that Susie’s complaint is true. But suppose the teacher did not see Johnny pull Susie’s hair. Although the teacher cannot directly verify what happened, she may still need to take action.

34. *State v. Payne*, 440 A.2d 280, 282-83 (Conn. 1982).

35. *Id.*

36. *In re Winship*, 397 U.S. 358, 361-64 (1970).

37. JOHN J. COUND ET AL, *CIVIL PROCEDURE* 1030 (8th ed. 2001) (noting that the preponderance standard is considered to be more than fifty percent).

38. *Id.*; *see also Anderson v. Augusta Chronicle*, 585 S.E.2d 506, 512 (S.C. Ct. App. 2003).

39. *United States v. Carroll*, 212 F. Supp. 422, 432 (W.D. Ark. 1962) (stating that facts can actually be inferred from evidence).

Teachers could not maintain control of their classrooms if they could only take disciplinary action when they actually saw what happened. Bullies would soon learn they could get away with anything whenever the teacher was not looking. But the teacher must now rely on a lower standard of proof. She can hear out both children and any possible witnesses and can examine physical evidence, if there is any. Then she must make a judgment call. All standards below absolute proof require some sort of judgment call about the strength of the evidence.

Now suppose that the teacher is asked to make the same determination as to two children who lived thousands of years ago, during Roman times. The teacher would have even less confidence making a decision, since she never met either child and has very limited information on which to base her decision.

This illustrates the problems scientists face when attempting to prove evolution. Some evidence, such as fossils and rock formations, can be directly observed and tested. But these tests cannot prove any particular theory of origins because no one alive today was around to see what actually happened in the past.⁴⁰ Thus, the information scientists plug into their formulas, and the conclusions they reach, are all based on inferences and even speculation drawn from the limited evidence available today.⁴¹ These “facts” are not directly measurable and testable, so the conclusions can be considered “facts” only under a much lower standard of proof. These “facts” fail to meet the requirements of the scientific method.⁴²

The essential characteristics of science in legal terms have been specified as follows: (1) it is guided by natural law; (2) it has to be explainable by reference to natural 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.⁴³ Note that the first two requirements have to do with naturalism. The other three derive from empiricism, which means they

40. See, e.g., John Baumgardner, *Exploring the Limitations of the Scientific Method*, Institute for Creation Research, <http://www.icr.org/article/exploring-limitations-scientific-method/> (last visited Nov. 13, 2009).

41. DEL RATZSCH, *SCIENCE AND ITS LIMITS* 93 (2d ed. 2000) (noting that evolutionary science presumes upon the “uniformity of nature,” i.e., that natural events in the past have always been subject to the same natural laws we observe today, and that the “uniformity principle” itself is not scientifically testable by observation).

42. *Edwards v. Aguillard*, 482 U.S. 578, 623 (1987) (Scalia, J., dissenting). Justice Scalia cites evidence that “[e]volution is not a scientific ‘fact,’ since it cannot actually be observed in a laboratory. Rather, evolution is merely a scientific theory or ‘guess.’” *Id.*

43. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982).

require scientific conclusions to be proven and tested.⁴⁴ This definition is quite restrictive, requiring every scientific conclusion to be measurable, testable, and falsifiable.⁴⁵ Under this legal definition, it would appear that scientific theories must be provable to a level of *absolute certainty*. In other words, there must be some means of confirming or denying a scientific theory, not just a judgment call.

In *McLean*, the court held that “creation science” is not science because it is not testable and it is not falsifiable.⁴⁶ *Kitzmiller*, which specifically held that intelligent design theory is not science, relied heavily on *McLean* and held that “science is limited to empirical, observable and ultimately testable data: ‘Science is a particular way of knowing about the world. In science, explanations are restricted to those that can be inferred from the confirmable data—the results obtained through observations and experiments *that can be substantiated by other scientists.*’”⁴⁷ Falsifiability connotes the ability to prove true or false through the use of direct or indirect observation.⁴⁸ Proof that is merely “beyond reasonable doubt” or “clear and convincing” is not enough. This test of falsifiability, which has been used to strike down alternative views of origins, as in *Edwards v. Aguillard*, demands a very high standard of proof.⁴⁹

The high level of authority and credibility generally associated with scientific findings derives from this high standard of proof. People hold scientific knowledge in high regard because they assume that scientists would not call something a “fact” unless it has been rigorously tested and withstood the test of time. Students are taught that when evidence exists that conflicts with a particular theory or hypothesis, the theory or hypothesis cannot be established because it is flawed.⁵⁰ It is only when no

44. Note that these requirements impose a burden of proof on scientific conclusions, but not on conclusions as to subjects outside the scientific realm.

45. *Id.*; *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 738 (M.D. Pa. 2005).

46. *McLean*, 529 F. Supp. at 1267.

47. *Kitzmiller*, 400 F. Supp. 2d at 735-36 (emphasis added) (citation omitted) (quoting a statement by the National Academy of Sciences).

48. D.H. Kaye, *On “Falsification” and “Falsifiability”*: *The First Daubert Factor and the Philosophy of Science*, 45 *JURIMETRICS J.* 473, 475-76 (2005).

49. *See Edwards v. Aguillard*, 482 U.S. 578, 623 (1987) (Scalia, J., dissenting) (arguing that too much evidence exists on either side of the creation/evolution debate for the government to categorically endorse either).

50. *McLean*, 529 F. Supp. at 1268-69 (“A scientific theory must be tentative and always subject to revision or abandonment in light of facts that are inconsistent with, or falsify, the theory.”); *see also* WAYNE WEITEN, *PSYCHOLOGY: THEMES AND VARIATIONS* 38 (8th ed. 2010); Sciencebuddies.org, Steps of the Scientific Method, http://www.sciencebuddies.org/science-fair-projects/project_scientific_method.shtml (last visited Nov. 13, 2009).

evidence conflicts with a scientific view that it can be established as a scientific law.⁵¹ If scientists cannot prove the things they are saying, the basis for allowing them to teach their opinions as scientific facts is undermined.⁵²

Evolutionists generally do not say that the scientific method requires absolute proof.⁵³ However, the idea that evolution has been absolutely proven is clearly the perception evolutionists intend to create with the general public.⁵⁴ Evolution has been taught in public schools since at least the 1970s, and courts have rejected even the use of disclaimers stating that evolution is merely a theory, rather than a fact.⁵⁵ The educational programs that present evolution do so with an air of authority that suggests established truth.

It appears that evolutionists are seeking to have their view treated as a scientific law, while at the same time protesting to those who point out problems with evolution that it is merely a theory. To the very same judge, they have indignantly argued that the mere suggestion that evolution is anything less than a “fact” smacks of religious superstition, while simultaneously contending that pointing out the gaps in evolutionary theory

51. Dictionary.com, Scientific Law, <http://dictionary.reference.com/browse/scientific+law> (defining “scientific law” as “a phenomenon of nature that has been proven to invariably occur whenever certain conditions exist or are met”).

52. Marie Lawrence, Science Fundamentals—What Is a “Fact”?, http://scientificinquiry.suite101.com/article.cfm/science_fundamentals_what_is_a_fact (last visited Nov. 13, 2009) (explaining that scientific findings are “facts,” but the belief that God created the universe is not a “fact,” but a “belief”).

53. Moran, *supra* note 32.

54. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 725 (M.D. Pa. 2005) (citing testimony by scientists that teaching that evolution is merely a theory, rather than a fact, is misleading and misrepresents evolution’s status in the scientific community); *id.* at 728 (the idea that evolution is merely a theory, rather than a fact, is merely a creationist ploy to cause students to doubt evolution’s validity without scientific justification); *id.* at 731 (the question whether evolution is a theory or a fact is “a loaded issue with religious undertones”); BARRY GOWER, SCIENTIFIC METHOD: AN HISTORICAL AND PHILOSOPHICAL INTRODUCTION 14, 132 (1997) (asserting that scientific facts are based on objective and verifiable observation); Lisa D. Kirkpatrick, *Forgetting the Lessons of History: The Evolution of Creationism and Current Trends to Restrict the Teaching of Evolution in Public Schools*, 49 *DRAKE L. REV.* 125, 126 n.6 (2000) (quoting Stephen Jay Gould’s assertion that “evolution is as well documented as any phenomenon in science, as strongly as the earth’s revolution around the sun rather than vice versa”); Dictionary.com, Scientific Fact, <http://dictionary.reference.com/browse/scientific+fact> (defining “scientific fact” as “any observation that has been repeatedly confirmed and accepted as true; any scientific observation that has not been refuted”).

55. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337 (5th Cir. 1999).

imposes an unfairly high burden of proof on evolutionists.⁵⁶ Federal judges, who are supposed to make impartial decisions on the basis of the evidence, should not accept such inconsistencies in the pro-evolution argument.⁵⁷ If scientists can prove that evolution meets the standard for a scientific law, as does gravitation, for example, it makes sense that other views should be rejected. But if evolution is merely a theory, there is no reason for other views to be suppressed in public education.⁵⁸

As a matter of public policy, absolute proof is the correct standard to use if evolutionists are to expect that evolution, and only evolution, is to receive public support. This is so for two reasons: (a) evolution is being sponsored by the government while other views are being suppressed, and (b) any lesser standard would allow government officials to make judgment calls for the people as to the strength of the evidence.

As the United States Supreme Court has recognized, what is taught in science classes in elementary and secondary schools is especially important because educators fulfill a public trust.⁵⁹ School attendance is mandatory and state-sponsored. Young people are impressionable and tend to accept unquestioningly what is taught them.⁶⁰ Accordingly, the classroom should not be used to advance religious views that conflict with privately held beliefs of students or their families.⁶¹ Adults can differ in their thinking and reach divergent conclusions after having ample time to weigh the evidence and consider the issues from various angles. But education is something more. Education involves teaching children—who come to school comparatively *tabula rasa*—the basic facts about their environment, about

56. *Kitzmiller*, 400 F. Supp. 2d at 741. Note that it is the definition of “science” evolutionists have propounded that imposes the burden of proof. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982).

57. This creates the appearance of a lack of objectivity. See National Center for Science Education, Judge Jones Honored by Geological Society of America (Sept. 28, 2009), <http://ncse.com/news/2009/09/judge-jones-honored-by-geological-society-america-005080> (last visited Oct. 12, 2009) (stating that “it is fitting that Judge Jones should receive the GSA’s Presidential Medal in 2009, the bicentenary of the birth of Charles Darwin”). Note also that legal doctrines such as judicial estoppel prohibit a party from adopting inconsistent positions in the same litigation. 28 AM. JUR. 2D *Estoppel and Waiver* § 74 (2009).

58. *Edwards v. Aguillard*, 482 U.S. 578, 623 (1987) (Scalia, J., dissenting) (arguing that too much evidence exists on either side of the creation/evolution debate for the government to categorically endorse either).

59. *Id.* at 583-84.

60. *Id.*

61. *Id.*

where they come from, about life, and about society.⁶² But even lay adults often lack a means of confirming or denying claims by scientists.

Educators serve a public trust. It is not the role of educators to tell people what to think. The purpose of education should be simply to inform people as to what views have received some degree of support and to give people the opportunity to make an informed decision about them.⁶³

The position evolutionists have taken is that creation science and intelligent design should not receive government support because they are not “science.”⁶⁴ The issue of which theories are to receive public support and which are to be rejected is a public policy issue, not merely a matter of interpretation of the definition of “science.” The controversy does not revolve around the issue of what scientists choose to call “science.” Rather, it is what scientists say about what has happened in the past that conflicts with historic and religious accounts of origins that has drawn the objections.⁶⁵ The question is one of more than science alone; the disciplines of religion and history also speak to events in the past.

Science has “opened the door” by extending itself into these areas, thus creating the conflict.⁶⁶ In order to brush other views aside and establish itself as the dominant theory, it is fair to expect that evolution be proven correct. Controversial views such as evolution should not be accorded full support unless they are demonstrably accurate, because government should

62. Donna Donald, *Take Long-term View for Teaching Children To Be Responsible*, Iowa State University Extension, <http://www.extension.iastate.edu/ringgold/news/responsibility.htm> (Apr. 30, 2006) (discussing the need to teach young children even the most basic facts and responsibilities in life).

63. See, e.g., *Edwards*, 482 U.S. at 623 (Scalia, J., dissenting) (arguing that academic freedom means freedom from indoctrination); Bruce W. Hauptli, *Education, Indoctrination, and Academic Freedom* (2005), <http://www.fiu.edu/~hauptli/Education,Indoctrination,andAcademicFreedom.html> (arguing that teachers and students should be free to seek truth without governmental interference) (last visited Nov. 13, 2009); see also *Keyishian v. Bd. of Regents*, 385 U.S. 589, 603 (1967) (“Our Nation is deeply committed to safeguarding academic freedom, which is of transcendent value to all of us The classroom is peculiarly the ‘marketplace of ideas.’ The Nation’s future depends upon leaders trained through wide exposure to that robust exchange of ideas which discovers truth . . .”).

64. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735-46 (M.D. Pa. 2005) (holding that intelligent design may not be taught because it is not science).

65. See, e.g., Henry Morris, *Evolution and the Bible*, Institute for Creation Research, <http://www.icr.org/article/evolution-bible/> (explaining that he opposes evolution because it conflicts with the creation account set forth in the Bible) (last visited Nov. 13, 2009).

66. Francis, *supra* note 5, at 754-55 (describing how Darwin used his theory of evolution to challenge the accepted belief that God created the universe).

not be in the business of censorship and propaganda.⁶⁷ Darwin's claims about origins do not give scientists the right to invade the realms of history and religion, posit views that take into account only evidence recognized by scientists, and then demand that previous views of history and religion be thrown out because they are not "scientific."⁶⁸ Historical accounts should be discarded from educational curricula only when scientists have absolute proof that the historical accounts are inaccurate.

Second, any standard less than absolute proof is inadequate because it requires government officials to make judgment calls on how strong they believe the evidence to be. The standards of proof below absolute proof, such as "reasonable doubt" and "clear and convincing evidence," require a decision about the satisfactoriness of the evidence.⁶⁹ A determination would have to be made as to whether any doubts about the evidence are reasonable or whether the evidence is clear and convincing. In legal cases, it is normally for the jury to weigh the evidence.⁷⁰ Educators and judges do not have authority to substitute their judgments about historical and scientific evidence for those of the general public.⁷¹ The fact that some people find the evidence for evolution convincing does not mean that everyone finds it so. The government should not suppress arguments about science or history unless there is demonstrable proof that these views are categorically wrong.⁷²

67. *Edwards v. Aguillard*, 482 U.S. 578, 624 (1987) (Scalia, J., dissenting) (arguing that government support for one side over the other in the creation/evolution debate is impermissible censorship).

68. "Science" is defined as, *inter alia*, "systematic knowledge of the material world gained through observation and experimentation," WEBSTER'S NEW UNIVERSAL UNABRIDGED DICTIONARY 1716 (1996). "History," meanwhile, is defined as, *inter alia*, "the branch of knowledge dealing with past events; the record of past events and times, esp. in connection with the human race." *Id.* at 907. Observation of the material world cannot also prove with certainty events that occurred in the past. Science cannot prove through experimentation, for example, that George Washington existed. The realms of history and science often overlap, and both should be considered in the origins debate.

69. *U.S. v. Carroll*, 212 F. Supp. 422, 432 (W.D. Ark. 1962) (stating that facts can actually be inferred from evidence).

70. 42 AM. JUR. 2D *Jury* § 2 (2008).

71. *Bartlett v. Strickland*, 129 S. Ct. 1231, 1245 (2009) ("Though courts are capable of making refined and exacting factual inquiries, they 'are inherently ill-equipped' to 'make decisions based on highly political judgments" (quoting *Holder v. Hall*, 512 U.S. 874, 894 (1994)); *Edwards*, 482 U.S. 578, 621 (Scalia, J., dissenting) ("But my views (and the views of this Court) about creation science and evolution are (or should be) beside the point."); *id.* at 627 (pointing out that students should be free from indoctrination).

72. *Epperson v. Arkansas*, 393 U.S. 97, 103-04 (1968) ("Government . . . may not be hostile to any religion or to the advocacy of [no religion]; and it may not aid, foster, or

The standard for government sponsorship of a particular view should be absolute proof; the standard for censorship of alternate views should also be absolute proof. Evolution, as shown below, fails to meet this standard.

The standard of absolute proof is very difficult to meet in the real world. A teacher often would not be able to punish a bully under a standard of absolute proof, because she could not measure, test, and falsify all of the evidence and verify that all the evidence inevitably supports her conclusion. A criminal would not be convicted under this standard in many cases, because even though scientific tests could be run, such evidence is merely circumstantial. A jury would be asked to infer, for example, that since the defendant's hair was found near the crime scene, the defendant committed the alleged act. This is not absolute, scientific proof. But it is still more precise than the evidence for evolution.

To prove evolution, scientists must rely on present-day evidence and make inferences about events that occurred millions of years ago. The "cone of uncertainty" for events that long ago is nearly infinitely wide, which reduces the probability of determining the correct explanation to near zero. Using an example from meteorology, the track of a hurricane can be accurately predicted only a few days in advance.⁷³ Criminal "cold cases" can be very difficult, if not impossible, to solve after only a few decades.⁷⁴ Yet evolutionists claim they have "proven" events that occurred millions and billions of years ago. Evolution is not provable to the level of certainty set forth in *McLean*.⁷⁵ The conclusions evolutionists draw are no more "provable" than the conclusions of historians. Saying evolution is a "fact" is not the same thing as saying evolution has been proven to be true. At most,

promote one religion or religious theory against another or even against the militant opposite.").

73. See, e.g., Columbia University Institute for Social and Economic Research and Policy, *The Cone of Uncertainty and Hurricane Forecasting*, <http://iserp.columbia.edu/news/articles/cone-uncertainty> (explaining the variables in predicting the tracks of hurricanes) (last visited Nov. 13, 2009).

74. See, e.g., Alan Gomez, *Solving Cold Cases Could Get Harder: High Costs of Justice, Closure Tug at Agencies*, USA TODAY, Feb. 1, 2008, at 3A, available at http://www.usatoday.com/news/nation/2008-01-31-coldcasesinside_N.htm (noting some of the problems in solving cold cases).

75. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that science meets exacting standards: (1) it is guided by natural law; (2) it has to be explanatory by reference to natural 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).

scientists can claim they have uncovered some evidence that they believe supports evolutionary views.⁷⁶

B. What Is “Evolution”?

The next question is what is meant by “evolution.” Scientists report finding minor changes in certain species as they have observed them over time.⁷⁷ Based on this evidence, scientists conclude that “evolution” is a fact.⁷⁸ The question is whether these minor changes establish evolution from one type of creature to another, as contemplated by Darwin.

Some have termed minor changes in species over time due to natural selection, “microevolution.”⁷⁹ Most scientists do not dispute that microevolution is real.⁸⁰ The point of contention between scientists of different persuasions concerns “macroevolution.” This is the larger Darwinian concept that all species currently in existence are descended from a single life form.⁸¹

Can we safely infer from minor observable changes over time that the descendants of one species will become a completely different kind of creature, and thus establish “macroevolution?” Without a time machine, scientists cannot devise a scientific experiment to answer this question with certainty. In other words, scientists must superimpose, through assumptions

76. See Religious Tolerance.org, Why Biological and Geological Scientists Disagree with Religious Conservatives, http://www.religioustolerance.org/ev_proof.htm (admitting that it is impossible to prove that evolution is absolutely true, but asserting that sufficient evidence exists to convince a large majority of scientists that evolution is true).

77. See, e.g., Understanding Evolution, Explaining Major Evolutionary Change, http://evolution.berkeley.edu/evolibrary/article/0_0_0/evodevo_04 (“Changes in the genes controlling development can have major effects on the morphology of the adult organism. Because these effects are so significant, scientists suspect that changes in developmental genes have helped bring about large-scale evolutionary transformations.”) (last visited Nov. 13, 2009).

78. See National Science Teachers Association, NSTA Position Statement: The Teaching of Evolution, <http://www.nsta.org/about/positions/evolution.aspx> (“There is no longer a debate among scientists about whether evolution has taken place. There is considerable debate about how evolution has taken place”); Moran, *supra* note 32 (asserting that the existence of biological evolution is a fact, but the exact mechanism of evolution is theoretical).

79. See PHILLIP E. JOHNSON, DARWIN ON TRIAL 68-69 (1991), for a fuller discussion of this issue. This distinction has been criticized, but it is important, not only because of the difference in the provability of macroevolution as opposed to microevolution, but also because of the use of the term “kinds” in the biblical record, which is discussed below.

80. *Id.* at 68.

81. *Id.*

they make, a continuous change over a very long period of time onto the evidence of minor changes in order to reach the conclusion that the observed changes will result in Darwinian evolution.⁸² But there is no way to prove scientifically that the assumption of constant, continuous change over time is factual.⁸³ It could be that these changes are cyclical, random, or simply variations on a theme. Other explanations are also possible.

For example, evolutionists claim that differences in current human skulls as compared to fossil skulls proves change over time, and thus evolution.⁸⁴ But this is only one possible explanation, and not the only explanation. It can also be argued from this evidence that other creatures existed in the past that were similar to modern humans and apes, but which are now extinct. DNA testing has not proved that any of these prehistoric creatures are our ancestors. In fact, DNA testing, which is used to confirm paternity and solve crimes, could not confirm evolution because evolutionists claim that DNA changes over time as a result of evolution.⁸⁵

It is not possible to prove scientifically that the changes currently being observed establish Darwinian evolution. Thus, when some scientists say “evolution” is a fact, they should explain that they are referring only to microevolution, not Darwinian evolution as is taught in schools.⁸⁶ Scientists should not make extravagant claims, such as “evolution is a fact,” to the general public, because to do so is misleading. The most scientists can say

82. MICHAEL DENTON, *EVOLUTION: A THEORY IN CRISIS* 69-77 (1986); RATZSCH, *supra* note 41, at 93 (noting that two scientists may obtain the same results with the same test, and yet apply two different presuppositions as to what conclusion to draw from the result).

83. Indeed, there is strong evidence that genetic changes over billions of years would actually result in loss of genetic information and degradation of the organism, in contradiction to the “survival of the fittest” Darwinian model. See *AnswersInGenesis.org*, *Has Evolution Really Been Observed?*, <http://www.answersingenesis.org/docs/508.asp> (last visited Nov. 13, 2009).

84. See, e.g., Minnesota State University E-Museum, *What Is Human Evolution?* (2005), <http://www.mnsu.edu/emuseum/biology/humanevolution/humevol.html> (chronicling the discovery of various artifacts and their influence on evolutionary theory) (last visited Nov. 13, 2009).

85. See University of California Museum of Paleontology, *Evolution 101: Genetic Variation*, <http://evolution.berkeley.edu/evosite/evo101/IIICGeneticvariation.shtml> (explaining that evolution cannot occur without genetic variation, which involves mutations, or changes in the DNA) (last visited Nov. 13, 2009).

86. WORKING GROUP ON TEACHING EVOLUTION, NATIONAL ACADEMY OF SCIENCES, *TEACHING ABOUT EVOLUTION AND THE NATURE OF SCIENCE* 57 (1998), available at http://www.nap.edu/openbook.php?record_id=5787&page=57 (stating that evolutionary biologists have documented the emergence of new species and that modern humans and apes share a common ancestor); see also *id.* at 55-56 (admitting that evolution cannot be directly observed, but stating that evolution is a fact because the evidence for it is so strong).

is that they have discovered some variability in species over time, which they believe could, given sufficient time, be evidence of full-blown Darwinian evolution. Although this cautious language may not be satisfactory to some who strongly believe evolution, evolutionary scientists should have the professionalism to recognize and disclose to the public that their discipline is not capable of providing the type of black-and-white answers other branches of science can provide.

III. FALLACY #2: “EVOLUTION IS HARD SCIENCE”

Not all “science” is created equal. The scientific method works very well in areas such as physics and chemistry. These areas of study deal with subjects that are empirically measurable and testable. For example, a chemical equation can be balanced like a mathematical equation, or the shape of the earth can be verified by simply taking a photograph. As noted above, scientific concepts such as gravity and momentum are based on observable behavior of objects that is consistent in all or nearly all cases. For purposes of convenience, this author will call facts that can be objectively verified or empirically demonstrated “hard science.”⁸⁷

The scientific method’s usefulness is weaker in areas such as psychology. Although experiments can be conducted, the psychological reality cannot be measured and tested.⁸⁸ The physiological manifestations can be tested, but this type of testing is indirect. The question always remains whether the methodology chosen accurately reflects the psychological phenomenon being tested. Scientific study is certainly useful in areas such as these, but its conclusions cannot meet the same standard of proof. I will call these areas “soft science.”

To illustrate, in the field of psychology, two well-known schools of thought are psychodynamic theory and behaviorism.⁸⁹ Psychodynamic theory does not pretend to be empirical. It is derived mostly from the experience of trained psychotherapists and counselors as they interact with their clients. The problem is that psychodynamic theory is not verifiable,

87. Phillip E. Johnson, *The Intelligent Design Movement: Challenging the Modernist Monopoly on Science*, in *SIGNS OF INTELLIGENCE: UNDERSTANDING INTELLIGENT DESIGN* 29 (William A. Dembski & James M. Kushiner eds., 2001) (referring to hard science as “empirical,” defined as “arising from observation or experiment” as opposed to deductive, philosophical reasoning).

88. WEITEN, *supra* note 50, at 50.

89. *Id.* at 493-508 (discussing and comparing various behavioristic and psychodynamic theories of psychology).

and therefore not terribly scientific.⁹⁰ For example, Sigmund Freud theorized that all people go through a five-stage process in psychosexual development.⁹¹ While this concept may be interesting to many people, the theory has been criticized for being impossible to prove scientifically.⁹²

On the other hand, behaviorism is built almost entirely on empiricism. It is as scientific as psychology can get.⁹³ But its weakness is that the results derived from the scientific method may not tell us what we are hoping to learn from the experiments, because the researcher cannot actually observe the thoughts of the subjects of the study.⁹⁴ Behaviorists point to certain phenomena that can be proven in a lab, such as classical conditioning, in which dogs learn to salivate at the sound of a bell because it is usually rung just before they are fed.⁹⁵ This may be helpful in explaining how people learn, but it does not necessarily provide a complete explanation of the way people learn. It is not easy to quantify and prove what is going on in someone else's mind or emotions.⁹⁶

The scientific method is a tool. It is a great tool for learning about things that are measurable and testable. However, it has its limits.⁹⁷ Things that are not easily quantifiable are not as amenable to the scientific method. The scientific method can be compared to a yardstick. A yardstick is useful for measuring distances. But a yardstick cannot measure temperature. Its usefulness is limited to the purposes for which it was designed.

The scientific method is at its best in areas of hard science. Scientists' conclusions in the hard sciences are objectively testable and verifiable, and thus entitled to a high degree of confidence. But in areas of soft science, scientists cannot directly measure and test the phenomena they are

90. *Id.* at 501 (stating that psychodynamic psychology has been subject to criticism for its lack of testability).

91. *Id.* at 497-99.

92. *Id.* at 501.

93. *Id.* at 508.

94. *Id.* at 50 (noting that psychological experiments are often artificial, and perhaps subjective).

95. *Id.* at 233.

96. *Id.* at 50.

97. William Harris, *Limitations of the Scientific Method*, <http://science.howstuffworks.com/scientific-method10.htm> (last visited Nov. 13, 2009); Marie Lawrence, Science Fundamentals—What Is a “Fact”?, http://scientificinquiry.suite101.com/article.cfm/science_fundamentals_what_is_a_fact (explaining that “science is purposely limited to studying and drawing conclusions about only what it can detect, measure or test”).

studying.⁹⁸ Thus, even though the conclusions scientists reach in soft science areas may be termed “scientific” and even “factual,” these conclusions are not entitled to the same level of confidence. But many people do not realize this and simply hear that “science” has “proved” these theories.

Evolution, like psychology, is soft science. A scientific experiment cannot be devised to show conclusively that Darwin’s theory is accurate. How could it? Darwin’s study of various creatures on the Galapagos Islands, no matter how careful, could not support the scientific conclusion that all life originated from a single-cell organism, since Darwin lacked what in legal terms is called personal knowledge.⁹⁹ In other words, he could observe only current plant and animal life. He had no way of observing what life forms existed long ago, or how these life forms are related to living plants and animals today.

Personal knowledge is important for scientific research. One of the key components of the scientific method is falsifiability.¹⁰⁰ Truth or falsity is not a range of gradients, but an either/or proposition. The concept of “falsifiability” implies that either something is true or it is not. To falsify a hypothesis or theory, a scientist must possess some means of determining its accuracy or lack thereof with a very high degree of confidence.¹⁰¹ This generally requires some form of personal knowledge.¹⁰²

It is possible for scientists to observe and document changes in species over time.¹⁰³ These documented changes, assuming they can be replicated, establish the minor changes of microevolution as hard science.¹⁰⁴

However, it is not possible for scientists to observe and document the origin of species or the relationship of current life forms to fossilized

98. WEITEN, *supra* note 50, at 50 (noting that psychological experiments often tend to be artificially contrived, since scientists cannot measure human thought).

99. BLACK’S LAW DICTIONARY, *supra* note 18, at 888 (defining personal knowledge as “[k]nowledge gained through firsthand observation or experience, as distinguished from a belief based on what someone else has said.”); FED. R. EVID. 602.

100. *McLean v. Ark. Bd of Educ.*, 529 F. Supp. 1255, 1268-69 (E.D. Ark. 1982).

101. Kaye, *supra* note 48, at 474 (quoting KARL POPPER, *CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE* 37 (5th ed. 1989) (stating that “the criterion of the scientific status of a theory is its falsifiability, or refutability, or testability”)).

102. *Id.* at 475 (“A theory that cannot be contradicted by any conceivable observation is not part of science.”).

103. ROGER PATTERSON, *EVOLUTION EXPOSED* 57 (2006) (noting that changes are frequently observed within a species (microevolution), but that no scientist has yet observed one species change to an entirely different kind of life form (macroevolution)).

104. *Id.* (noting that microevolution is an observable process, but a process which has never been observed to change one life form into an entirely different one).

remnants from things that lived long ago. The most one could conclude from Darwin's studies is that similar species have subtle differences that could result from a common ancestry.¹⁰⁵ This is not hard scientific proof.¹⁰⁶ Any number of possible explanations can be advanced for these observations, but the battle over their meaning continues because none of the explanations can be proven. Darwin's studies, including his comparison and documentation of similarities and differences among similar species, are entitled to scientific merit. However, his conclusion that these similarities and differences prove a common origin (macroevolution) is little more than speculation, and therefore at best soft science.¹⁰⁷

It is also true that fossils, bones, and various other artifacts can be tested.¹⁰⁸ The testing itself is scientific. The readings obtained during these studies are derived from known experimentation. The results of the testing are scientific under the *McLean* test.¹⁰⁹ But the implications and conclusions drawn from the testing are not.¹¹⁰ The origins of species, as suggested by Darwin, occurred millions of years ago. If observation is the key to the "scientific" method, evolution is inherently unprovable, since no observation can be conducted to verify what actually happened without going back in time. Therefore, Darwin's "theory" is not even a working hypothesis because it is not falsifiable. It does not qualify as hard science because it is not empirically provable.¹¹¹

105. *Id.* at 70-74 (noting that similarities in organs do not necessarily dictate a common ancestor, and that the fossil record fails to support the "transitional forms" that the Darwinian model would require between "earlier" and "later" species).

106. HOLMES ROLSTON, *SCIENCE & RELIGION: A CRITICAL SURVEY* 21 (5th ed. Templeton Foundation Press 2006) (1987) (noting that "hard science" is empirical, and the origin of life has never been observed or tested).

107. *Id.*; see also DENTON, *supra* note 82, at 69.

108. JONATHAN SARFATI, *REFUTING EVOLUTION* 107 (1999). The author notes that to avoid the normal decay process, fossils would have to form very quickly, not over millions of years. *Id.* He also argues that the *Genesis* account of a catastrophic flood, which would have sealed creatures in sediment very quickly, can explain the fossil record in a way the Darwinian model cannot. *Id.*

109. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that science meets exacting standards: (1) it is guided by natural law; (2) it has to be explanatory by reference to natural 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).

110. *Id.* While two tests on a fossil specimen can be tested against each other, neither can be tested against observation of the origin of the life form in the first place.

111. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 738 (M.D. Pa. 2005) ("[S]cience is limited to empirical, observable and ultimately testable data: 'Science is a particular way of knowing about the world. In science, explanations are restricted to those

The scientific method is a limited tool for obtaining information about things that are measurable and testable. Evolution is categorized as “science” because scientists study present-day artifacts and differences between life forms, which some of them believe could support evolution. But there is a difference in the level of confidence in the results of objective, measurable testing and the subjective conclusions drawn by the researchers as to what the results of the testing mean.¹¹² This lower standard of confidence should be disclosed when scientific theories are presented to the public, along with an explanation as to why the conclusions were drawn, so people will be able to make their own judgments based on the verifiable evidence.

Soft sciences such as psychology and evolution fail to meet the objective verifiability requirements of the definition of science under *McLean*. These disciplines can be considered “science” only because they rely on a naturalistic approach.

IV. FALLACY #3: “THE SCIENTIFIC METHOD LIMITS REALITY”

Most people recognize that science cannot directly prove historical facts. They argue, however, that the scientific evidence is all we have as evidence of the origin of life, and this scientific evidence tends to support evolution.¹¹³ The trouble with this line of thinking is it assumes that the limitations inherent in the scientific method also limit the possible explanations as to what happened in the past.¹¹⁴ Rejecting alternative explanations of origins is valid only if it can be shown that nothing could have happened that is not verifiable by science.¹¹⁵

The debate has often focused on how scientists define the practice of science. In *Kitzmiller*, the court assumed that evolution is “science,” and reasoned that since evolution is science, it is misleading for educators to

that can be inferred from the confirmable data – the results obtained through observations and experiments *that can be substantiated by other scientists.*”) (emphasis added).

112. RATZSCH, *supra* note 41, at 93 (noting that two scientists may obtain the same results with the same test, and yet apply two different presuppositions as to what conclusion to draw from the result).

113. *See Kitzmiller*, 400 F. Supp. 2d at 735 (explaining that naturalism is a self-imposed limitation on science in which scientists consider only testable, natural explanations).

114. RATZSCH, *supra* note 41, at 22-23. The author noted that evolutionary science presumes upon the “uniformity of nature,” i.e., that natural events in the past have always been subject to the same natural laws we observe today. *Id.* The “uniformity principle” itself is not scientifically testable by observation.

115. *See NSTA*, *supra* note 78 (stating that the scientific method assumes everything that can be measured and tested can be explained purely by scientific exploration).

throw any doubt on the conclusion that evolution is factual.¹¹⁶ In contrast, the court specifically held that intelligent design theory is not “science.”¹¹⁷ The court opined that intelligent design cannot be “science” because it allows for a supernatural explanation, i.e., that an intelligent being (untestable by science) may have designed the universe.¹¹⁸ The court held that scientists must reject supernatural explanations because they cannot be measured and tested according to the scientific method.¹¹⁹

Importantly, the court expressed no opinion as to the “ultimate veracity” of intelligent design.¹²⁰ In other words, the court dodged the issue of whether intelligent design is actually true. The court simply held that intelligent design is not science, and therefore it should not be taught. This leaves open the question whether a scientific conclusion should be taught to the public, even though it might not be true, simply because it is derived solely from the scientific method. Assuming a conclusion is true merely because it is derived from the scientific method is a valid assumption only if nothing could happen that is not subject to the scientific method. In other words, it must be shown that the scientific method limits reality itself.

The scientific method is an empirical tool for obtaining information through positing a theory, and then measuring and testing the theory to see if it holds true.¹²¹ The scientific method is usually defined as something similar to the following:

- (1) The methodological study of a phenomenon through careful observation, collecting data, experimental investigation, or theoretical explanation.
- (2) A systematized body of knowledge in the form of hypotheses, theories, principles, models or laws that have been conclusively drawn from observed or verifiable facts or from experimental findings gained basically from the application of the scientific method.¹²²

There is nothing mysterious about the scientific method. Initially, an individual observes some phenomenon. In order to study this phenomenon, the individual develops a hypothesis, or tentative explanation, and then tests

116. *Kitzmiller*, 400 F. Supp. 2d. at 725.

117. *Id.* at 735.

118. *Id.* at 742-43.

119. *Id.*

120. *Id.* at 745.

121. ROLSTON, *supra* note 106, at 2.

122. *Id.*

that hypothesis in various ways to see if it will hold true.¹²³ If it does, the individual continues to develop a theory, which must also be tested. If the theory is not falsified under testing and stands the test of time, it is understood to be a law. Others can then build on that knowledge to advance scientific understanding.¹²⁴

As noted above, scientists define the practice of science in terms of ideas that are guided by natural law and explainable by reference to natural law.¹²⁵ Scientific data and conclusions must be measurable, testable, and falsifiable.¹²⁶ Scientists reject subjective or supernatural explanations because it is not possible to measure and test subjective or supernatural phenomena.¹²⁷ The mere introduction of such phenomena makes the calculations upon which scientific theories are based impossible.¹²⁸

But this does not prove the existence or non-existence of subjective or spiritual realities. Just because some things cannot be scientifically proven does not necessarily mean they do not exist. Suppose that John is in love with Lisa. A scientist hopes to learn something about this thing called love. He measures and tests various physiological responses when John and Lisa are together and apart. He studies their behavior, monitors their tone of voice and facial expressions. After collecting all the data and analyzing it by every method possible, he finds that the results are inconclusive. There is simply no scientific proof that John loves Lisa.

Does this really matter? Does this mean that John does not love Lisa? It does not. The most that can be concluded is that whether John loves Lisa is something beyond the ability of the tool—the scientific method—to discern. In other words, the limits inherent in the scientific method limit the usefulness of science as a tool for discovering certain things, but these limits have no bearing whatsoever on what actually exists.¹²⁹

In spite of this, the idea that scientific learning limits reality has had a powerful influence on prevailing thought over the past couple centuries. By the mid-1900s, prominent thinkers began to assert that there is no subjective

123. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1266 (E.D. Ark. 1982) (describing the “scientific method” and stating that it requires testable hypotheses).

124. See WEITEN, *supra* note 50, at 40-45.

125. *McLean*, 529 F. Supp. at 1267.

126. *Id.* at 1268.

127. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735-36 (M.D. Pa. 2005).

128. *Id.* at 736 (explaining that allowing supernatural explanations is a “science stopper”).

129. RATZSCH, *supra* note 41, at 96-99 (noting that, e.g., ultimate right and wrong may exist, in spite of the fact that science cannot determine them).

reality.¹³⁰ This extreme view never completely caught on, but it gradually became accepted, for purposes of science and as a philosophical world view, that things such as emotions, beliefs, and religion must be ignored.¹³¹ These concepts have no place in an empirical scheme because they cannot be measured and tested.

But why would this mean these things do not exist? It appears that these thinkers fell victim to a very simple fallacy. They had such confidence in the scientific method that they came to believe that nothing truly exists that cannot be measured and tested.¹³² But they failed to realize that the limits inherent in the scientific method put constraints on only the type of knowledge obtainable through the scientific method as a tool. There is no reason to believe that the definition of science limits reality itself.¹³³

Returning to the question of evolution, the idea that evolution wins by default since there is no other scientific explanation is absurd. The question of origins is within the realm of history, not science, since the very definition scientists use to define their profession limits science to the study of present tense phenomena.¹³⁴ Scientists cannot directly measure and test historical events. History has to do with the past, and therefore, like the study of subjective and supernatural phenomena such as psychology and religion, it is an extra-scientific area of study under the *McLean* definition.¹³⁵ The fact that scientists cannot measure and test what happened in the past does not mean that there is no past; it means that what happened in the past is beyond the ability of the scientific method to determine. Thus, the scientific method does not limit reality. Instead, the limits inherent in

130. John Angus Campbell, *Introduction to DARWINISM, DESIGN AND PUBLIC EDUCATION* xxix (John Angus Campbell & Stephen C. Meyer eds., 2003).

131. *Kitzmiller*, 400 F. Supp. 2d at 735-36 (accepting that science must be naturalistic without questioning why such a limitation must be imposed, the implications of such a limitation, or the effect of this requirement on evolution itself as science); NANCY PEARCEY, *TOTAL TRUTH: LIBERATING CHRISTIANITY FROM ITS CULTURAL CAPTIVITY* 97-121, 154 (Study Guide ed. 2005); see also WEITEN, *supra* note 50, at 10 (explaining that B.F. Skinner believed free will is an illusion because all behavior is fully governed by measurable and testable external stimuli); Trask, *supra* note 25, at 360-61 (discussing the influence of logical positivism on the debate).

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

133. RATZSCH, *supra* note 41, at 96-99 (noting that, e.g., ultimate right and wrong may exist, in spite of the fact that science cannot determine them).

134. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982); Marie Lawrence, *Science Fundamentals—What Is a “Fact”?*, http://scientificinquiry.suite101.com/article.cfm/science_fundamentals_what_is_a_fact (explaining that “science is purposely limited to studying and drawing conclusions about only what it can detect, measure or test”).

135. *Id.*

the scientific method limit the ability of scientists to make scientific conclusions in extra-scientific areas such as history, psychology, and religion.

Other areas of study are not affected by the naturalistic requirements of the definition of science; religion is free to consider evidence of the supernatural. While scientists may choose to confine themselves to naturalistic explanations for purposes of scientific study, this limitation need not apply when explanations of origins are presented to the public. The definition of science limits only science. The truth as to what happened in the distant past is not limited by arbitrary limits scientists impose on themselves.¹³⁶

In areas of hard science, the fact that scientific conclusions do not limit reality is less important and may even be inconsequential because both the phenomenon being studied and the conclusion can be directly tested and verified.¹³⁷ Thus, unless something extremely unusual happens, the scientific conclusions *are* the reality. Scientists can therefore say that their findings prove their conclusions in reality. But this reasoning does not carry over into areas of soft science.

Soft sciences such as psychology and evolution meet only the naturalistic requirements of the definition of science.¹³⁸ Since they fail to meet the objective verifiability (i.e., empirical) requirements of science, which require absolute empirical provability, their conclusions are not entitled to the same credibility that the conclusions of hard sciences have. The fact that evolution and psychology are naturalistic approaches may bring them within the definition of science, but this does not mean that science has proven their conclusions.¹³⁹ It simply means that science has provided one possible explanation that has both the advantages (the rigor of the scientific method) and the disadvantages (the limitation to naturalistic data and conclusions) inherent in all scientific research.¹⁴⁰

136. Earle Fox, Definition of "Science," <http://www.theroadtoemmaus.org/RdLb/11Phl/Sci/DefinSci.htm> (arguing that religious truth-seeking is not limited by the rules of science, which can vary even between scientific disciplines).

137. Johnson, *supra* note 87, at 29 (referring to hard science as "empirical," defined as "arising from observation or experiment" as opposed to deductive, philosophical reasoning).

138. *See id.* (comparing "materialist" or "naturalist" (soft) science to "empirical" or "hard" science). While purporting to be "hard" science because it refuses to take account of any potential supernatural causes, evolution is actually "soft" science because it simply asserts that there cannot be any cause outside of naturalism, and is not concerned with empirically proving its assertion.

139. *Id.*

140. *Id.* at 30 (stating that Darwinists then deductively reason from their presumed conclusion that evolution must therefore be as factually true as arithmetic).

A third type of criteria for the definition of science has also been proposed. Essentially, this requirement is that science is the profession practiced by scientists. In other words, science is what scientists do.¹⁴¹ This requirement, like the naturalistic requirement, does not limit reality and does not clothe scientific findings with a high degree of credibility such as that provided by the objective verifiability requirement.¹⁴² For example, saying that alchemy is what alchemists do does not make the practice of alchemy any more credible. This requirement may have the benefit of bringing soft sciences under the umbrella of the definition of science. But it has no value in determining whether a scientific conclusion has been sufficiently established to merit government sanction.

The issue of what is taught to children and the general public is broader than a dispute over how scientists define their profession. Children, and even many adults, are not able to understand the limitations scientists impose on themselves for purposes of experimentation, and how these limitations may affect their conclusions.¹⁴³ What people need, and have a right to expect, is the truth. If the scientific method does not limit reality, then it follows that other, non-scientific explanations might be possible. Science cannot simply ignore this possibility, yet insist on teaching its potentially arbitrary and incorrect conclusions to the public under the guise of proven history. The fact that evolution is the only acceptable explanation under the constraining rules of the definition of science does not mean it is the truth.

V. FALLACY #4: "THE EVIDENCE UPON WHICH EVOLUTION IS BASED IS MORE 'SCIENTIFIC' THAN THE EVIDENCE SUPPORTING CREATION"

Evolution, which is soft science, cannot be proven scientifically, because its conclusions rely on speculation and artificial rules, which, like rules of evidence in a courtroom, limit the evidence scientists can consider in seeking truth.¹⁴⁴ These rules make sense when scientists study observable, measurable phenomena. But relying solely on scientifically verifiable data is inadequate when considering the great mysteries of the universe, such as

141. McLean v. Ark. Bd. of Educ., 529 F. Supp. 1255, 1267 (E.D. Ark. 1982).

142. Johnson, *supra* note 87, at 30 (noting that Darwinists are left to reason from a presumed conclusion to what the *evidence* "must" suggest, rather than a hard science approach of reasoning from empirical observation to what the *conclusion* must be).

143. PATTERSON, *supra* note 103, at 7 (stating that the author's purpose for writing the book is to provide information and counteract the one-sided treatment of origins in the public school classroom).

144. See Fox, *supra* note 136.

whether God exists, how the universe came into existence, or what happened in the distant past.¹⁴⁵ Regardless of posturing by scientists, the answers to these and other similar questions are simply beyond the ability of humanity to ascertain scientifically.¹⁴⁶ Extrapolating from measurable and testable data to attempt to answer questions regarding the existence of God or the untestable origin of the universe is pointless and futile—much like assuming a trail into a dense forest will continue in a linear manner in the direction in which it starts.¹⁴⁷ Scientists who arrogantly assert that science has answered such questions, while offering no evidence that the origin of life has ever been observed or tested, are not being truthful and are doing their fellow man a great disservice.

Another problem for evolution is that not all of the available scientific evidence tends to confirm it.¹⁴⁸ Although the debate is beyond the scope of this work, many have argued convincingly that some scientific evidence flatly contradicts evolution.¹⁴⁹ Others have argued, quite fairly, that evidence of design in the universe exists that points to an intelligent creator.¹⁵⁰ Since the author is not a scientist, this Article will not attempt to argue the merits of the scientific arguments for or against these theories. It is bewildering for the layman to read the arguments raised by scientists on either side of the issue, since most people do not understand the science well enough to make any informed judgment.¹⁵¹

145. ROLSTON, *supra* note 106, at 303 (noting that belief in the supernatural necessarily requires consideration of causes outside of naturalism).

146. WILLIAM A. DEMBSKI & SEAN McDOWELL, UNDERSTANDING INTELLIGENT DESIGN 46 (2008) (positing that Intelligent Design advocates do not necessarily claim to know who or what the designer is, but simply deduce from the scientific evidence the hypothesis that design is more likely than not).

147. *See supra* note 145 and accompanying text; *see also* RATZSCH, *supra* note 41, at 94, 98 (noting that concepts such as God, morality, and ultimate origins are beyond the realm of science).

148. *Edwards v. Aguillard*, 482 U.S. 578, 623 (1987) (Scalia, J., dissenting) (“The scientific problems with evolution are so serious that it could accurately be termed a ‘myth.’”).

149. *See generally* JONATHAN WELLS, ICONS OF EVOLUTION: SCIENCE OR MYTH? (2000); MICHAEL J. BEHE, DARWIN’S BLACK BOX (1996); MICHAEL DENTON, EVOLUTION: A THEORY IN CRISIS (1986); PEARCEY, *supra* note 131, at 153.

150. DAVID DEWOLF, ET AL., TRAIPTING INTO EVOLUTION 17-22 (2006); Francis J. Beckwith, *Science and Religion Twenty Years After McLean v. Arkansas: Evolution, Public Education, and the New Challenge of Intelligent Design*, 26 HARV. J.L. & PUB. POL’Y 455, 470-77 (2003).

151. In response to this difficulty, a number of groups have sprung up to offer the layman scientific answers from evolutionary, creationist and/or Intelligent Design perspectives. *See generally* Discovery Institute, <http://www.discovery.org/csc> (last visited Nov. 13, 2009);

Nevertheless, evolution as a scientific theory suffers from two key defects in its verifiability: (a) theories about ancient events cannot be directly observed and falsified, and (b) the evidence available today does not uniformly support evolutionary views.¹⁵² These defects undercut the argument that evolution is more scientific than other views of origins.

Accordingly, it is not unfair for those who disagree with evolution to point out gaps and problems in evolutionary theory. Judge John E. Jones III protested in *Kitzmiller* that the mere fact that opponents of evolution point to gaps and problems in evolutionary theory is misleading and an attempt to place an unfair burden of proof on scientists.¹⁵³ However, Judge Jones forgets that it is evolutionists who are advocating government sanction of their theory and attempting to silence their critics.¹⁵⁴ If the First Amendment means anything, it protects the right of the general public to question official government positions, which now include government endorsement of evolution.¹⁵⁵ It is disingenuous for scientists to argue that the mere fact they do not currently have all the answers does not mean they will not eventually discover them through scientific research, when the truth is that no amount of scientific research will ever be able to prove absolutely either the origin of the universe or the origin of species.¹⁵⁶

Institute for Creation Research, <http://www.icr.org> (last visited Nov. 13, 2009); TalkOrigins, <http://www.talkorigins.org> (last visited Nov. 13, 2009).

152. See the website of Answers in Genesis, <http://www.answersingenesis.org>, for numerous books and articles by scientists who believe the evidence supports creation.

153. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 741 (M.D. Pa. 2005).

154. *Id.* at 709. The objective of the *Kitzmiller* suit was to prohibit intelligent design from being taught as an alternate theory. *Edwards v. Aguillard*, 482 U.S. 578, 624 (Scalia, J., dissenting) (“Teachers have been brainwashed by an entrenched scientific establishment composed almost exclusively of scientists to whom evolution is like a ‘religion.’ These scientists discriminate against creation scientists so as to prevent evolution’s weaknesses from being exposed.”); see National Science Teachers Association, NSTA Position Statement: The Teaching of Evolution, <http://www.nsta.org/about/positions/evolution.aspx> (as indicative of government’s current official position).

155. *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943) (“If there is any fixed star in our constitutional constellation, it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein.”).

156. Even justices on the United States Supreme Court have questioned the provability of evolution. See *Epperson v. Arkansas*, 393 U.S. 97, 114 (Black, J., concurring) (“Certainly the Darwinian theory, precisely like the Genesis story of the creation of man, is not above challenge. In fact the Darwinian theory has not merely been criticized by religionists but by scientists, and perhaps no scientist would be willing to take an oath and swear that everything announced in the Darwinian theory is unquestionably true.”).

Moreover, it is not necessary to attempt to win arguments from science with regard to the issue of whether theories of origins should receive government sanction and be taught to the public. Neither side can absolutely prove its case. Evolutionists are simply being hypocritical when they argue, on the one hand, that theories such as creationism and intelligent design are not science because the conclusions they draw are not falsifiable by scientific exploration, while on the other hand arguing that evolution should be taught despite the fact that evolution fails the same test.¹⁵⁷ The same evidence is available for all. The same tests can be conducted on this evidence. But a conclusion about origins requires some form of logical leap in all cases. Creationists look to the biblical record and infer that the record is true.¹⁵⁸ Intelligent design advocates make the philosophical argument that a complex universe presupposes an intelligent designer.¹⁵⁹ Evolutionists look at the same evidence and speculate that Darwin, who was in no better position to witness the origin of species than are the rest of us, may have been correct.¹⁶⁰

Of course, the fact that an answer cannot be proven scientifically does not mean there is no answer. As has been shown, just because science cannot demonstrate something does not mean it does not exist.¹⁶¹ Accordingly, an answer may exist that is simply not scientifically provable. There may be an answer which can be found through other means.

A. Other Explanations of Origins Can Be Proven to the Same Standard As Evolution

Since evolution cannot be absolutely proven, the question arises whether other explanations of origins are supported by sufficient evidence to merit parallel consideration in educational curricula. While scientific methodology can be applied to relics from the past, this is as far as science can go, under its own definition.¹⁶² The inferences and conclusions drawn

157. Johnson, *supra* note 87, at 29 (arguing that Darwinists presume naturalistic explanations as true, even though the origin of life is inherently untestable).

158. *Id.* at 37 (noting that creationists infer the existence of a Creator from creation).

159. *Id.* at 31 (noting that intelligent design advocates infer the existence of a design from the appearance of design).

160. *Id.* at 26 (noting that Darwinists look at the same facts and conclude that the earth evolved by purely naturalistic processes over billions of years).

161. *See supra* note 133 and accompanying text.

162. McLean v. Ark. Bd. of Educ., 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that science meets exacting standards: (1) it is guided by natural law; (2) it has to be explanatory by reference to natural 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).

from this evidence about the past are within the realm of history, not science.¹⁶³ Science can inform historical research, but it cannot replace it.¹⁶⁴ Thus, the scientific method does not limit the evidence that can be considered or the conclusions that can be drawn about history.

The study of history demands a different standard—one that takes into account the diminished ability of historians to determine with precision what happened in the past.¹⁶⁵ The same standard should be applied in an even-handed manner to all potentially meritorious views of history, including accounts in ancient documents.¹⁶⁶ Government should not be allowed to mandate the teaching of one unprovable theory while at the same time restricting and effectively suppressing other theories that are provable to the same standard. All views that are supported by the same or a similar amount of evidence should also be presented.¹⁶⁷

Since evolution is being presented as science, it is fair to question where to set the standard of provability and which scientific/historical views meet that standard. As set forth above, the scientific method demands absolute provability, which no theory of origins can meet.¹⁶⁸ Because evolution cannot meet this standard, it should be eliminated along with all other theories of origins under *McLean*. However, scientific research would be severely limited if every scientific conclusion had to be absolutely proven. Soft science subjects such as psychology could not be considered science under the stringent standard evolutionists have imposed on those who oppose them in court.¹⁶⁹ Few people would go so far as to insist that

163. PATTERSON, *supra* note 103, at 20 (2006), (explaining the difference between operational and historical science).

164. Science, for example, cannot empirically test or observe the existence of George Washington. No such test is available. But history is clear as to his existence. While history and science may sometimes overlap, neither can replace the other. *See supra* note 68.

165. Much of history is beyond empirical, observable, testable proof. Historians have to rely on “circumstantial evidence” such as writings, pictures, etc. *See infra* notes 198-201 and accompanying text.

166. *See Edwards v. Aguillard*, 482 U.S. 578, 588 (1987) (“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.”).

167. *Id.* at 594 (noting that “teaching a variety of scientific theories about the origins of humankind to schoolchildren might be validly done with the clear secular intent of enhancing the effectiveness of science instruction”).

168. *See supra* note 156 and accompanying text.

169. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that science meets exacting standards: (1) it is guided by natural law; (2) it has to be explanatory by reference to natural 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).

evolution and psychology are not science. But if evolutionists favor lowering the standard of proof to allow soft sciences to be taught in public schools, they must apply the same diminished standard to alternate theories, such as historic accounts of creation. The fact that creation accounts do not meet the naturalistic requirements of the definition of science is irrelevant, because it is not the scientific methods that cause the controversy, but rather the conclusions about history.¹⁷⁰ Science has put the issue in play by drawing speculative conclusions about history through the teachings of Darwin.

If theories of origins need not be absolutely proven to be debated in schools, the next question is to determine exactly which standard should be applied. Since no view can be absolutely proven, some lowered standard should be used.¹⁷¹ For example, in the field of psychology, neither the behavioral nor the psychodynamic model can be absolutely proven.¹⁷² So, both theories are taught together and the relative strengths and weaknesses of each view are discussed.¹⁷³ If explanations of origins other than the evolutionary model are potentially viable and are supported by a substantial body of evidence, it is unjust for the government to censor them.

B. “Schools of Thought” Rule

It is quite common for different schools of thought to exist within a particular area of study. When diverging views exist in a field of study, all theories that have substantial support should be presented for purposes of education.¹⁷⁴ For example, courts have held that medical doctors may not be

170. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 731 (M.D. Pa. 2005). Judge Jones is criticizing, not merely the alleged lack of scientific merit in creationism, but the fact that its adherents also utilize an historical/religious inquiry into origins. He states that the question whether evolution is a theory or a fact is “a loaded issue with religious undertones.” *Id.*

171. See *supra* note 156 and accompanying text.

172. See WEITEN, *supra* note 50, at 10 (stating that humanists have criticized both the psychodynamic and behavioral schools of thought for being “dehumanizing” and failing to recognize the unique qualities of human behavior); *id.* at 47 (explaining that the experimental method cannot be used to research some questions in psychology); *id.* at 489 (explaining that psychodynamic theories tend to have poor testability); *id.* at 356-59 (explaining the strengths and weaknesses of psychological testing).

173. See WEITEN, *supra* note 50, at 502-08 (discussing behavioral theories); *id.* at 493-502 (discussing psychodynamic theories).

174. *Epperson v. Arkansas*, 393 U.S. 97, 107 (1968) (“The State’s undoubted right to prescribe the curriculum for its public schools does not carry with it the right to prohibit . . . the teaching of a scientific theory or doctrine where the prohibition is based upon reasons that violate the First Amendment.”). Since it has already been shown that evolution violates

held liable for their decisions to pursue a course of treatment advocated by a particular school of thought.¹⁷⁵ In other words, if the course of treatment chosen has been accepted by “a considerable number” of recognized and respected professionals in the field, the doctor is not liable in a malpractice lawsuit.¹⁷⁶

This principle applies to education also. If doctors are allowed to use their professional judgment in deciding which school of thought to apply in deciding a patient’s course of treatment, they need to be educated on all generally recognized schools of thought. It should be the purpose of education, not to promote a particular view, but to educate students as to the views that have been put forward.¹⁷⁷ Thus, the standard for allowing theories to be taught in public schools should be much lower than affirmative proof in subjects where absolute proof is impossible. Under the “schools of thought” rule, views should be presented if a considerable number of professionals in the field have accepted them.

Of course, allowing government to make determinations of what is taught in science class on a pure majority vote, especially when controversial issues are involved, may not be a good idea. Rather, such determinations should be made on the basis of the evidence instead of on the number of people who espouse a particular view.

A theory need not be proven absolutely to merit consideration for presentation by educators. Instead, there need only be a substantial body of evidence—more than mere speculation or a bare minimum, but not necessarily enough to prove the theory. Perhaps a standard similar to the “substantial evidence” rule used in appeals of government agency decisions could be used.¹⁷⁸ Government agency decisions are affirmed on appeal if

the very definition of “science” that its supporters put forward, it may be banned because the reason for the ban is not necessarily religious. Conversely, if the teaching of evolution is allowed, the teaching of creation must also be allowed since both views have an ideological basis. *See id.* at 108 n.15 (citing testimony that “the purpose of these [anti-evolution] statutes is an ‘ideological’ one which ‘involves an effort to prevent (by censorship) or punish the presentation of intellectually significant matter which contradicts accepted social, moral or religious ideas’”).

175. *Jones v. Chidester*, 610 A.2d 964, 969 (Pa. 1992); 61 AM. JUR. 2D *Physicians, Surgeons, etc.* § 198 (2008).

176. 61 AM. JUR. 2D *Physicians, Surgeons, etc.* § 198 (2008).

177. *Epperson*, 393 U.S. at 116 (Stewart, J., concurring) (“But would a State be constitutionally free to punish a teacher for letting his students know that other languages are also spoken in the world? I think not.”).

178. *See, e.g., Original Blue Ribbon Taxi Corp. v. S.C. Dep’t of Motor Vehicles*, 670 S.E.2d 674, 676-77 (S.C. Ct. App. 2008).

they are based on substantial evidence.¹⁷⁹ The court reviewing these decisions must affirm, even if they disagree with the decision, if it was based on some evidence that was more than a “mere scintilla.”¹⁸⁰

This type of analysis should be applied in determining which views of history should be taught. Evolution and historic accounts of creation both meet the substantial evidence standard. It is not for government to say whether accounts of history are true or not. Historical records should be presented if there is a substantial amount of evidence supporting them, regardless of whether government officials (including judges) believe it. Government’s role, if it allows teaching of evolution, should be limited to determining whether other theories of history are supported by some evidence and are more than mere fables or speculation.

C. *Validity of the Biblical Record as an Historical Account of Origins*

Scientists generally do not consider evidence supporting alternative explanations of origins that come from outside their profession.¹⁸¹ The most well-known body of evidence contrasting with evolution is the creation account in the biblical record.¹⁸² Scientists dismiss this evidence that controverts evolution for three primary reasons: (1) the evidence is not scientific; (2) the evidence contains accounts of supernatural beings and miracles; and (3) the evidence is religious.¹⁸³ Although these issues may

179. *Id.* at 677.

180. *Pack v. State Dep’t of Transp.*, 673 S.E.2d 461, 464, (S.C. Ct. App. 2009).

181. *See, e.g., McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that science meets exacting standards: (1) it is guided by natural law; (2) it has to be explanatory by reference to natural 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); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 736 (M.D. Pa. 2005) (explaining that allowing supernatural explanations is a “science stopper.”).

182. *See Scopes v. State*, 289 S.W. 363, 368 (Tenn. 1927) (Chambliss, J., concurring) (“Two theories of organic evolution are well recognized, one the theistic, which [is derived from the biblical record], and held to by numerous outstanding scientists of the world. The other theory is known as the materialistic, which denies that God created man, that He was the first cause, and seeks in shadowy uncertainties for the origin of life.”); *Edwards v. Aguillard*, 482 U.S. 578, 622 (1987) (Scalia, J., dissenting) (citing testimony that creation and evolution are the only two theories competing for acceptance in the origins debate).

183. As to the first reason, see *Kitzmiller*, 400 F. Supp. 2d at 735 (finding that intelligent design theory is not science); *McLean*, 529 F. Supp. at 1267 (finding that creationism is not science). As to the second reason, see *Kitzmiller*, 400 F. Supp. at 735 (finding that intelligent design violates the rules of science by invoking supernatural causation); *McLean*, 529 F. Supp. at 1267 (finding that creationism depends on supernatural intervention). As to the third reason, see *Kitzmiller*, 400 F. Supp. at 764 (holding that teaching intelligent design

disqualify the biblical record from being “scientific,” they do not necessarily mean it is not true and historically accurate.

1. “Biblical Evidence Is Not ‘Scientific’”

Evolutionary theory simply ignores the evidence that contradicts it, including the biblical record and every other explanation from history. Evolutionary theory is based on the fundamental maxim that only naturalistic evidence and conclusions can be considered.¹⁸⁴ While this maxim seems reasonable, a more careful analysis uncovers difficulties with this line of thinking.

First, just because science cannot prove something does not mean it does not exist. Suppose a scientist finds the Loch Ness monster and is able to take photographs and collect other scientific data proving its existence. Would the Loch Ness monster spring into existence the moment it is discovered and scientifically verified? Clearly not! The proper conclusion is that the Loch Ness monster existed all the time, but science was simply incapable of verifying its existence until the monster was discovered. Second, what about the eyewitness accounts from people who said they saw the Loch Ness monster before its existence could be scientifically verified? These accounts were evidence of the monster’s existence, even though they did not rise to the level of scientific verifiability.

The point of this analogy is not the existence of the Loch Ness monster, which, of course, remains a mystery. Rather, the point is to consider carefully how evidence is classified and the thought processes by which scientific conclusions are reached. The existence of the Loch Ness monster has not been scientifically proven. However, it also seems that science has not disproved the Loch Ness monster’s existence. Thus, the most science can say is that it has made a diligent effort to locate the monster and has been unable to do so. This leaves the accounts of people who claim to have seen the monster plus any circumstantial evidence that can be found. This evidence may not be scientific, but it is still evidence. As non-scientific evidence, it must be judged on its credibility; it cannot prove or disprove the existence of the monster.¹⁸⁵ One must either believe or disbelieve the witnesses or take a wait-and-see attitude.

constitutes government endorsement of religion); *McLean*, 529 F. Supp. at 1259 (holding that creation science is a fundamentalist religious doctrine).

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

185. *See* *Murphy v. Tyndall*, 681 S.E.2d 28, 31 (S.C. Ct. App. 2009) (holding that determinations as to the credibility of witnesses and the inferences that can be drawn from the facts are for the jury in legal trials). Credibility is defined in the law as “[t]he quality that makes something (as a witness or some evidence) worthy of belief.” BLACK’S LAW

It would be absurd to take the position that any evidence that is not scientific is not evidence at all. Should it really matter whether the person witnessing an event is a scientist? Is not that rather discriminatory? Suppose a scientist finds, photographs, and carefully documents the Loch Ness monster. Other scientists then attempt to locate the monster but fail. If other scientists do not believe the scientist who saw the monster, does this mean the evidence was not scientific? What if hundreds of years later someone finds the scientist's documentation? Must the evidence be verified again? Most importantly, does any of this affect the existence of the monster? Even children realize that just because a parent steps out of a room, the parent does not cease to exist. Evidence is evidence. The scientific verifiability of a piece of evidence, which can change over time, affects only the credibility of the evidence, not whether it is actually evidence.

The mystery of the Loch Ness monster falls into one category of unknowns with respect to science, the category of objects that are empirically measurable and testable. Another example in this category is the existence of distant planets and stars.¹⁸⁶ The Loch Ness monster (theoretically), planets, and stars are measurable and testable objects. The unknown arises only from the fact that science has not yet been able to verify the existence or non-existence of planets and stars we cannot see with today's technology. In these cases a negative inference can be drawn from the fact that scientists have made a concerted effort to verify scientifically their existence. For example, the evidence for the Loch Ness monster is weak because scientists have painstakingly attempted to search the lake using soundings and have found no evidence of the monster.¹⁸⁷

However, there is another class of unknowns, which is simply beyond the ability of science to ascertain. An example is love.¹⁸⁸ Do people usually

DICTIONARY, *supra* note 18, at 396. Credibility is defined generally as "worthy of belief or confidence; trustworthy: a credible witness." Dictionary.com, <http://m.reference.com/d/search.html?q=credibility>.

186. See, e.g., Fraser Cain, *Discovery of Pluto*, UNIVERSE TODAY, <http://www.universetoday.com/guide-to-space/pluto/discovery-of-pluto/> (explaining that scientists suspected the existence of Neptune and Pluto before photographs of them could be made). Like the purported Loch Ness monster, these are objects that can be subjected to scientific investigation. But unlike the monster, they have been "discovered" by science.

187. Encyclopedia Smithsonian, The Loch Ness Monster, http://www.si.edu/encyclopedia_Si/nmnh/lochness.htm.

188. WEITEN, *supra* note 50, at 658-60 ("Love has proven to be an elusive subject. It's difficult to define and study because there are many types of love."). Scientists can suggest different types of love and conduct studies on certain measurable aspects of love such as attachment and commitment, but this is not the same thing as isolating and measuring love itself.

ask a scientist to verify whether those close to them actually love them? Love and other human experiences are not empirically testable. The scientific method, which focuses on measuring and testing, cannot address these subjects.¹⁸⁹ When phenomena are not amenable to scientific testing, the evidence must be judged on its credibility.¹⁹⁰ A person either sees sufficient evidence of love and chooses to believe that someone loves him or her, or chooses not to believe it. It is a subjective determination. But taking a wait-and-see attitude may not work in these situations, because no amount of scientific evidence will ever absolutely prove whether love exists. To enter into a relationship, one must “take a leap of faith” and choose to believe in the other person. A long-term wait-and-see attitude is effectively a rejection, because a relationship of love and trust cannot be created. The same concept also applies to religious beliefs, which involve a relationship with God.

Love, relationships, and the distant past are examples of things that are not amenable to the scientific method. Science cannot prove or disprove any of these. Scientific theories are of no more value than the thoughts of laypersons with experience in these areas.

To summarize, all possible knowledge is not scientifically provable. When a fact can be ascertained by the scientific method, it is considered a scientific fact.¹⁹¹ However, just because the scientific method cannot verify a concept or fact does not mean it is not true. In such cases, scientists should refrain from hasty generalizations and simply state that science is unable to make a determination on the issue to a level of scientific certainty. When future scientific exploration will likely be able to make a more definitive determination, scientists should say so.¹⁹² But when scientific exploration is unlikely to ever make a definitive determination, scientists should disclose to the public that science cannot provide a complete answer.

Each person should be able to decide for himself or herself whether he or she believes the evidence when a scientific determination cannot be made.

189. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable).

190. See CHARLES ZASTROW, *UNDERSTANDING HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT* 489-94 (1996) (providing theories regarding the thought processes in which an individual engages when deciding whether to enter into a love relationship).

191. *Id.*

192. See *Encyclopedia Smithsonian*, *supra* note 187 (although scientists have not yet been able to locate the Loch Ness monster, they continue to keep an open mind as to its existence).

In many cases, such as when scientific advances may make a definitive discovery at some point in the future, it is perhaps most prudent to take a wait-and-see attitude. But when scientific exploration is unlikely to ever be able to make a determination, and an individual faces an important decision, waiting for a scientific discovery is impractical.¹⁹³

When scientific evidence is inconclusive, the best way for government to present the evidence on contested issues in the educational setting is to present the available evidence as candidly and fairly as possible and to discuss the relative strengths of each reasonable inference that can be drawn from the available evidence.¹⁹⁴ Misrepresenting mysteries as either solved or non-existent when the evidence is inconclusive does not promote the public good.¹⁹⁵ Each person deserves the right, in the educational setting, to benefit from the findings of those who have investigated an issue without being subjected to the hardline ideological beliefs of any particular group.

As this Article has shown, the question of origins is not a typical subject for scientific research, and the research methods and analyses that are used in studying origins are more similar to the methods used by historians than those used in other areas of scientific study. History, like psychology and evolution, is a soft science; it is often impossible to verify scientifically its conclusions. Accordingly, scientific evidence is not conclusive on the question of origins. Other available evidence should also be considered when educating students about past events such as the issue of origins.

a. Direct and Circumstantial Evidence

In courts of law, non-scientific evidence is regularly used as a means of proof. Non-scientific evidence is generally divided into two types: direct evidence and circumstantial evidence.¹⁹⁶ “Direct evidence is the testimony of a person who asserts or claims to have actual knowledge of a fact, such as an eyewitness.”¹⁹⁷ In contrast, “[c]ircumstantial evidence is proof of a chain of facts and circumstances indicating the existence of a fact.”¹⁹⁸ Direct evidence is often considered better than circumstantial evidence, because if true, it immediately establishes a fact, whereas circumstantial

193. For example, a jury cannot wait for a new scientific discovery when deliberating over a verdict.

194. *Edwards v. Aguillard*, 482 U.S. 578, 624 (1987) (Scalia, J., dissenting) (arguing that government support for one side over the other in the creation/evolution debate is impermissible censorship).

195. *Id.*

196. *State v. Salisbury*, 541 S.E.2d 247, 249 n.1 (S.C. 2001).

197. *State v. Cherry*, 606 S.E.2d 475, 479 (S.C. 2004).

198. *Id.*

evidence is merely proof of a chain of events that creates an inference of the existence of a fact.¹⁹⁹ In other words, direct evidence is based upon the testimony of a witness, which is established if the witness is credible. Circumstantial evidence requires a logical leap.

Direct evidence is the testimony of witnesses who actually saw or heard something related to a case. Because no one else was present to see or hear what these individuals witnessed, the court relies on their testimony. The witnesses' testimony establishes the facts unless there are reasons to believe the witness is not credible.²⁰⁰

Circumstantial evidence lacks the benefit of an eyewitness to tell the story.²⁰¹ An example of circumstantial evidence is the glove found at the scene of the murder in the O.J. Simpson case. Although many people believe the glove was O.J.'s, his attorneys were able to highlight the fact that no one could absolutely prove the glove was O.J.'s, or that O.J. in fact committed the murder.²⁰² Imagine how much stronger the state's case would have been if a witness could have come forward and said, "I saw O.J. do it!" This would have provided direct evidence of the murder.

Scientific evidence is also used in courts. Scientists can examine fingerprints, hairs, and other evidence found at a crime scene and provide opinions for the jury to consider.²⁰³ Scientific evidence is essentially circumstantial evidence buttressed by the analysis of forensic experts who understand better than the common man what implications can be drawn

199. *Salisbury*, 541 S.E.2d at 249 n.1343; *State v. Cherry*, 559 S.E.2d 297, 301 (S.C. Ct. App. 2001) (Anderson, J., concurring and dissenting). In criminal cases, the modern trend is to use the same standard, "reasonable doubt," for both direct and circumstantial evidence. *See, e.g., Cherry*, 606 S.E.2d at 480-82. The reason for this is to avoid confusing the jury, since "reasonable doubt" is the highest standard known to the law. *Id.*; *see also State v. Payne*, 440 A.2d 280, 282-83 (Conn. 1982) (noting that "beyond reasonable doubt" means that no other reasonable explanation exists). This does not negate the well-documented understanding that direct testimony is stronger because it does not require inferences from collateral facts. *See also Cherry*, 606 S.E.2d at 483-84 (Toal, C.J., dissenting) (citing cases); Caroll J. Miller, Annotation, *Modern Status of Rule Regarding Necessity of Instruction on Circumstantial Evidence in Criminal Trial—State Cases*, 36 A.L.R.4th 1046, § 3 (1985 & Supp. 2009). Courts have recognized that circumstantial evidence is especially weak in cases in which there is a long lapse of time between the facts to be proved and the evidence used to prove them.

200. BLACK'S LAW DICTIONARY, *supra* note 18, at 596 (defining "direct evidence" as "evidence that is based on personal knowledge or observation and that, if true, proves a fact without inference or presumption").

201. *Nichols v. State*, 591 N.E.2d 134, 135 (Ind. 1992).

202. Douglas Linder, *The O.J. Simpson Trial*, *Jurist: Legal News and Research* (2000), <http://jurist.law.pitt.edu/trials10.htm>.

203. FED. R. EVID. 702.

from the available data.²⁰⁴ Some scientific evidence, such as DNA testing, is considered very strong. Other scientific evidence, such as lie-detector testing, is considered weak.²⁰⁵ However, scientific evidence does not establish the facts absolutely in courts of law. Instead, scientific evidence, like every other type of evidence, simply provides evidence for the jury to consider.²⁰⁶ Importantly, scientific evidence is much stronger in solving cases arising from relatively recent events where many factors are known. The greater the time interval between the fact to be proved and the scientific investigation, and the more factors that are unknown, the weaker scientific evidence becomes.²⁰⁷

While direct evidence is better than circumstantial evidence, both are considered appropriate for resolving controversies in courts of law.²⁰⁸ Circumstantial evidence and direct evidence—accounts by people, whether living or deceased, with personal knowledge related to the matter at issue—are evidence of historical events. They may not be conclusive evidence, but they are evidence.

The conflict between creation accounts and evolution is in a sense a conflict between testimonial and circumstantial evidence. The present-day evidence for both evolution and creation can be measured and tested. But neither view can be conclusively proved, because proving either would require time travel. Because purported eyewitness testimony carries more weight than extrapolations and conjecture from current observable data regarding events in the distant past, however, the burden of proof should be on evolutionists to *disprove* the accuracy of the biblical record.²⁰⁹ Instead,

204. See 31A AM. JUR. 2D *Expert and Opinion Evidence* § 1 (2008) (explaining that expert testimony allows the opinions of people with experience in a particular area to assist the trier of fact, despite the fact that experts do not have first-hand testimony).

205. See, e.g., *State v. McHoney*, 544 S.E.2d 30, 35 (S.C. 2001) (explaining that the reliability of polygraph evidence is in doubt).

206. 31A AM. JUR. 2D *Expert and Opinion Evidence* § 114 (2008).

207. 29 AM. JUR. 2D *Evidence* § 328 (2008) (explaining that evidence loses its relevance when it is too remote in time from the events it is offered to prove).

208. *Id.* at § 4.

209. *Nichols v. State*, 591 N.E.2d 134, 135 (Ind. 1992); see also *King v. Strickland*, 748 F.2d 1462 (11th Cir. 1984) (“Circumstantial evidence cases are always better candidates for penalty leniency than direct evidence convictions.”). In legal actions, the burden of proof shifts to the opposing party once the proponent has provided evidence supporting all elements of his case. *Daisy Outdoor Adver. Co., Inc. v. S.C. Dep’t of Transp.*, 572 S.E.2d 462, 465 (S.C. Ct. App. 2002) (“Once a party establishes a prima facie case, the burden of proof shifts to the opposing party.”). The existence of ancient documents containing solemn declarations attesting to supernatural creation by God creates a prima facie case for creation because direct testimony immediately establishes facts. But both circumstantial evidence and the scientific method require that theories be affirmatively proved. This serves to place the

scientists often argue that since the biblical record cannot be absolutely proven, it is discredited and without value as an historical record.²¹⁰ This is incorrect because there is no need to prove direct evidence, which is established by testimony.²¹¹ The only issue is whether the witness is credible. When circumstantial evidence—such as the bones and fossils used to support evolution—is relied upon, however, the theory must be proved. Even if direct testimony is not presumed to be stronger evidence, circumstantial evidence must depend on inferences.²¹² Since evolutionists must rely on inferences, they should not ignore the inferences drawn from the direct testimony provided by the biblical record. The biblical record is direct evidence of events that happened long ago.

b. The Biblical Record Provides Direct Evidence of History

The biblical record is an example of direct evidence of origins. It is archaeological evidence that appears to contain historical records, as explained below.²¹³ It is, therefore, a potentially authentic account of history. As has been shown, at least two types of evidence of past events exist: circumstantial or scientific evidence, and testimonial accounts in historical records. For purposes of education, it is appropriate to consider the standard under which government may censor or remove this archaeological evidence from the body of knowledge available to students.²¹⁴

The United States Supreme Court has held that the government “may not, consistently with the spirit of the First Amendment, contract the

burden of proof squarely on those who would displace the accuracy of the biblical record with a scientific theory, not vice versa.

210. See NSTA, *supra* note 78 (“Scientific creationist claims have been discredited by the available scientific evidence.”).

211. BLACK’S LAW DICTIONARY, *supra* note 18, at 596 (defining “direct evidence” as “evidence that is based on personal knowledge or observation and that, if true, proves a fact without inference or presumption”).

212. *Id.* at 595 (defining “circumstantial evidence” as “evidence based on inference and not on personal knowledge or observation”).

213. JOSH McDOWELL, EVIDENCE THAT DEMANDS A VERDICT 53-61 (1992) (setting forth the ancient manuscripts of the Old Testament that have been discovered); LEE STROBEL, THE CASE FOR CHRIST 107 (1998) (noting that archaeology repeatedly confirms New Testament accounts). It is often overlooked that these manuscripts, such as the Dead Sea Scrolls, are themselves archaeological artifacts. See Dictionary.com, Artifact, <http://dictionary.reference.com/browse/artifact> (defining artifact as “any object made by human beings”).

214. Epperson v. Arkansas, 393 U.S. 97, 103 (1968) (holding that a particular segment of knowledge may not be proscribed for a solely religious reason). The same rationale should apply whether the ideological bent is religious or anti-religious, since government must be neutral. *Id.* at 103-04.

spectrum of available knowledge.²¹⁵ Moreover, the Constitution protects the right of students to receive information and ideas.²¹⁶ For this reason, the government may not constitutionally prohibit valid historical information from being taught.²¹⁷ The biblical record, regardless of its religious content, is a potentially accurate account of what has transpired in the past. Since it is a testimonial record, the government should not suppress it unless the government can show that the biblical record is patently false or that it lacks credibility as an historical record.²¹⁸

Some people object to inclusion of the biblical account in the curriculum in public schools on the ground that it would require courts, scientists, and teachers to make determinations about religious issues. But this is a red herring. The question does not involve religious doctrines of the biblical record. Because segments of knowledge may not be excised for religious reasons, the only issue is whether the biblical record is a potentially accurate historical account. The religious and historical questions may seem interrelated, but the law has a means of differentiating between the two.

When government is confronted with religious evidence, it may not discriminate against religion by excluding the entire body of evidence.²¹⁹ By taking such a stance, the government effectively inhibits religion by passing judgment on the merits of the evidence—the very thing government is prohibited from doing. The only question the government should ask is whether a piece of evidence is relevant to the subject in question and potentially meritorious. Since the question of origins is historical in nature, the issue is whether an historical record, religious or non-religious, is a

215. *Griswold v. Connecticut*, 381 U.S. 479, 482 (1965).

216. *Bd. of Educ. v. Pico*, 457 U.S. 853, 866-67 (1982) (quoting *Stanley v. Georgia*, 394 U.S. 557, 564 (1969)).

217. *Keyishian v. Bd. of Regents*, 385 U.S. 589, 603 (1967) (“Our Nation is deeply committed to safeguarding academic freedom, which is of transcendent value to all of us The classroom is peculiarly the ‘marketplace of ideas.’ The Nation’s future depends upon leaders trained through wide exposure to that robust exchange of ideas which discovers truth”).

218. In legal trials, all relevant evidence is generally admissible. *FED. R. EVID.* 402; 29 *AM. JUR. 2D Evidence* § 301 (2009); *see supra* note 200 and accompanying text (explaining that direct evidence is based upon the testimony of a witness, which is established if the witness is credible).

219. The First Amendment prohibits the government from adopting or “establishing” a religious viewpoint. *See, e.g., McCreary County, Ky. v. American Civil Liberties Union of Ky.*, 545 U.S. 844, 860 (2005) (holding that the First Amendment mandates government neutrality, both between various religions, and between religion and nonreligion); *Edwards v. Aguillard*, 482 U.S. 578, 608 (1987) (Powell, J., concurring) (explaining that the Establishment clause prohibits use of religious documents only when the purpose of their use is to advance a particular religious belief).

potentially accurate account of history. Because government may not address the merits of a religious document by asking whether the account within the record is true in all respects (since it contains religious material that cannot be proven or disproven), the only question government should ask is whether there are clear reasons to believe that the record, religious or not, cannot be taken as an accurate statement of history.²²⁰ These reasons must be objective and may not be slanted in favor of a particular viewpoint.²²¹

The legal profession has a mechanism for examining a document without passing on its merits. Consider, for example, Federal Rule of Civil Procedure 12(b)(6). When someone brings a legal action by filing a complaint with the court, the defendant may move to dismiss the action. Rule 12(b)(6) provides that a motion to dismiss may be granted if the complaint does not state a valid legal claim.²²² The complaint fails to state a claim when, even assuming all the facts alleged in the complaint are true, there is no basis for legal action. When the judge hears the motion, the judge is generally required to take the complaint at face value and to assume the facts alleged in the complaint are true.²²³ The motion to dismiss can be granted only when the judge finds that the facts in the complaint, even if true, would not establish a valid legal claim.²²⁴ If there are any potentially meritorious theories in the complaint, even if the judge personally considers them to be weak, the motion to dismiss must be denied.²²⁵

Another example is when a court considers an insurance carrier's duty to defend under a liability insurance policy. The court must take the allegations in the complaint, without passing on their merits, and determine

220. *Epperson v. Arkansas*, 393 U.S. 97, 109 n.15 (1968) (commenting that intellectually significant matter should not be censored on ideological grounds).

221. *Good News Club v. Milford Cent. Sch.*, 533 U.S. 98, 106-07 (2001) (holding that viewpoint discrimination against religious-based speech is unconstitutional); *Epperson*, 393 U.S. at 103-04 (“Government in our democracy, state and national, must be neutral in matters of religious theory, doctrine, and practice.”).

222. FED. R. CIV. P. 12(b)(6).

223. *Plyler v. Burns*, 647 S.E.2d 188, 192 (S.C. 2007). Federal courts impose a “plausibility” standard under Rule 8, a rule governing legal pleading. *See Ashcroft v. Iqbal*, 129 S. Ct. 1937, 1949-50 (2009). Consistent with this plausibility requirement, minimum standards such as facial historical validity and substantial supporting evidence are proposed below. *See infra* Part V.C.1.b.i-ii.

224. *Plyler*, 647 S.E.2d at 192.

225. *Id.* (holding that “the complaint should not be dismissed merely because the court doubts the plaintiff will prevail in the action”).

whether the allegations are the type covered under the language of the insurance policy.²²⁶

Government officials can employ a similar analysis to determine whether the biblical record is a meritorious historical account. Since censorship violates academic freedom, a potentially authentic historical record should be recognized unless it is demonstrably false.²²⁷ Hence, a low standard of proof applies to the question of whether historical evidence may be “dismissed,” or censored from the body of information available to students.²²⁸ There is no need to delve into the religious issues when considering whether to remove historical evidence from educational curricula, because students should be allowed to weigh the evidence for themselves, just as a jury weighs the evidence in courts of law.

There are only two questions that should be asked when determining whether biblical evidence should “survive a motion to dismiss” or, instead, be censored from educational curricula: (a) whether the biblical record, on its face, purports to be an historical record, and (b) whether there is substantial evidence to support its validity. Passing judgment on the merits of the biblical record entangles government in religious issues because it requires government to weigh the evidence and substitute its judgment for that of the people generally and students in particular. But simply recognizing an ancient document as an historical record and refusing to censor it does not cause government entanglement, because no religious issue must be addressed in making such a determination.

i. On Its Face, the Biblical Record Purports To Be an Accurate Historical Record

The first question is whether an ancient document purports to be an historical record. It would be misleading to teach as history stories that are clearly myths, fables, or legends.

The biblical record is an example of an ancient document that purports to be an historical record. On its face, the document claims to be a collection of written accounts of witnesses recording historical events. For example, the apostle John wrote: “This is the disciple who testifies to these things

226. See, e.g., *USAA Prop. & Cas. Ins. Co. v. Clegg*, 661 S.E.2d 791, 797 (S.C. 2008).

227. *Bd. of Educ. v. Pico*, 457 U.S. 853, 866-67 (1982) (holding that the First Amendment prohibits government from censoring information and ideas); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982) (explaining that since “[s]econdary effects which advance religion are not constitutionally fatal,” religious information should only be banned if it has no scientific merit or educational value as science).

228. *FED. R. CIV. P. 12(b)(6)*.

and who wrote them down. We know that his testimony is true.”²²⁹ He also said, “That which was from the beginning, which we have heard, which we have seen with our eyes, which we have looked at and our hands have touched”²³⁰ The apostle John linked his testimony to the creation account: “In the beginning was the Word, and the Word was with God, and the Word was God. He was with God in the beginning. Through him all things were made; without him nothing was made that has been made.”²³¹

John’s language indicates that he intended the document to be read as the testimony of an eyewitness. Although no human being was present to observe the creation of the universe, the biblical record states that John and other individuals met and spoke with Jesus Christ. John claims that Jesus was directly responsible for the creation of the universe.²³² While this appears to be hearsay, or second-hand testimony, the biblical record also indicates that the writers spoke not only on their own account but also as agents directly influenced by God: “We did not follow cleverly invented stories”²³³ “Above all, you must understand that no prophecy of Scripture came about by the prophet’s own interpretation. For prophecy never had its origin in the will of man, but men spoke from God as they were carried along by the Holy Spirit.”²³⁴ In other words, the biblical record claims to be affidavits of people who either directly witnessed historical events or received accounts of pre-historic events directly from God.²³⁵

The book of Genesis, which contains the creation account, also indicates that the document was intended as an historical record. The creation account states: “This is the account of the heavens and the earth when they were created.”²³⁶ This statement is repeated in the genealogies, the flood account, and the story of the patriarchs.²³⁷ The fact that the biblical account contains genealogies with specific ages of named individuals, and also

229. *John* 21:24.

230. 1 *John* 1:1.

231. *John* 1:1-3.

232. *Id.*

233. 2 *Peter* 1:16. “Agent” is defined as “[o]ne who is authorized to act for or in the place of another; a representative.” BLACK’S LAW DICTIONARY, *supra* note 18, at 68.

234. 2 *Peter* 1:20-21.

235. “Affidavit” is defined as “[a] voluntary declaration of facts written down and sworn to by the declarant before an officer authorized to administer oaths, such as a notary public.” BLACK’S LAW DICTIONARY, *supra* note 18, at 62. Clearly God qualifies as an officer authorized to administer oaths. “Declaration” is defined as “[a] formal statement, proclamation, or announcement, esp. one embodied in an instrument.” *Id.* at 437.

236. *Genesis* 2:4.

237. *Genesis* 5:1; 6:9; 10:1; 11:10, 27; 25:19; 36:1 37:2.

indicates when important events occurred, suggests that the document was intended as an historical record.²³⁸

Some have argued that the creation account represents mere myths and legends that Moses incorporated into the Torah, or Jewish law.²³⁹ While these people are entitled to their opinions, this argument does not affect the potential historicity of the biblical account. The fact remains that many other people believe the biblical account is historically accurate.²⁴⁰ The government cannot give preference to either side.²⁴¹ Neither those who accept nor those who reject the historical accuracy of the biblical account, including writers (such as Darwin) who are now deceased, can provide any first-hand testimony—both beliefs are simply opinions of people who have lived long after the fact. The important issue is whether an historical document, on its face, purports to provide a credible, accurate account of historical events.

There is no reason the biblical creation account has to be interpreted as a collection of myths, legends, or fairy tales. The authorship of the Torah is generally attributed to Moses.²⁴² Although Moses would not have been present when the events recorded in the creation accounts in the book of Genesis occurred, he had ample opportunity to receive the written account directly from God. The Torah, on its face, states that Moses spent forty days and nights on the mountain alone with God, during which time he received the law.²⁴³ The “Testimony” was written on two tablets of stone by the finger of God Himself.²⁴⁴ After coming down from the mountain and finding the Israelites worshipping a golden calf, Moses re-ascended the mountain and stayed with God for another forty days and forty nights,

238. See, e.g., *Genesis* 5; Kieran Egan, *From Myth to History and Back Again*, sec. “Myth and Its Past,” last para., <http://www.educ.sfu.ca/kegan/AERA-Mythto.html> (differentiating history from myth by noting that myths are characterized by a reluctance to maintain over time a memory of particulars) (last visited Jan. 31, 2010).

239. ENCYCLOPAEDIA BRITANNICA, “Jewish Myth and Legend,” available at <http://www.britannica.com/EBchecked/topic/307197/Judaism/35338/Jewish-myth-and-legend> (last visited Oct. 10, 2009).

240. See FoxNews.com, *Darwin’s Birthday Poll: Fewer Than 4 in 10 Believe in Evolution* (Feb. 12, 2009), <http://www.foxnews.com/story/0,2933,491345,00.html> (last visited Nov. 13, 2009).

241. The First Amendment prohibits the government from adopting or “establishing” a religious viewpoint. See, e.g., *McCreary County, Ky. v. American Civil Liberties Union of Ky.*, 545 U.S. 844, 860 (2005) (holding that the First Amendment mandates government neutrality, both between various religions, and between religion and nonreligion).

242. WILLIAM SANFORD LA SOR, *OLD TESTAMENT SURVEY* 60-64 (1989).

243. *Exodus* 24:18; *Deuteronomy* 9:9.

244. *Exodus* 31:18; *Deuteronomy* 9:10-11.

during which time he neither ate nor drank anything.²⁴⁵ When Moses came down, his face was radiant because he had spoken with God, and his face shone so much that he had to wear a veil.²⁴⁶ Moses also spoke to God on a regular basis at the tent of meeting, a fact God Himself confirmed to the entire Israelite assembly.²⁴⁷ If this evidence is believed, God had plenty of opportunity to provide Moses with a direct account of creation.

God also had a motive for providing a first-hand account of creation. In the Torah, Moses was given authority to lead the nation of Israel and to impose a law on them.²⁴⁸ The nation of Israel was also given authority to displace the nations in Palestine and take over their land.²⁴⁹ The authority of God to do any of these things is dependent on His status as creator and supreme authority, indicating that the creation account was intended to be read in context as an integral part of the record, rather than a sideline myth or fable.²⁵⁰

Note also that the fourth of the Ten Commandments, which relates to keeping the Sabbath, refers to the six-day creation in providing a rationale for a rest day.²⁵¹ This shows literary continuity between the creation account and the law directly given to Moses. The New Testament cites both the creation and the flood accounts in refuting “scoffers” who deny the reality of God.²⁵² Thus, it is reasonable to infer that the creation accounts in Genesis were intended as an historical truth, not mere mythology.

The fact that many people do not believe the biblical record is true does not affect its status as historical evidence. Since no one can prove absolutely what happened in the past, what is important is whether the account purports to be historical, rather than merely mythological or fictional. The biblical record, on its face, purports to be historical and distinguishes itself from “myths and old wives’ tales.”²⁵³ The government is not permitted to take sides on controversial issues such as religion.²⁵⁴ Thus,

245. *Exodus* 34:28; *Deuteronomy* 9:18.

246. *Exodus* 34:29-35.

247. *Exodus* 33:11; *Numbers* 12:4-8.

248. See *Exodus* 3:10; 6:1-12; 19:3-6; 21:1; *Numbers* 12:1-8; *Deuteronomy* 4:32-34.

249. *Deuteronomy* 7:1-2.

250. See *Deuteronomy* 32:6 (describing God as creator); 32:39 (describing God as supreme authority).

251. *Exodus* 20:11.

252. *2 Peter* 3:3-7.

253. *1 Timothy* 4:7.

254. *Perry Educ. Ass’n v. Perry Local Educators’ Ass’n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality

it may not reject potentially accurate historical accounts unless it can be demonstrated that such accounts are false. The opinions of those who believe the biblical record is not an accurate historical record are irrelevant to the question of whether the biblical record should be censored. As a potentially accurate historical record, it should not be suppressed, provided substantial evidence exists to support it.²⁵⁵

ii. Substantial Evidence Supports the View That the Biblical Record Is an Accurate Reflection of History

The next question is whether substantial evidence exists to support the view that an ancient document, such as the biblical record, is in fact an accurate reflection of history. As discussed above, a particular view need not be absolutely proven to merit inclusion in educational curricula.²⁵⁶ There need only be a substantial body of evidence to support the view. There is a substantial body of evidence supporting the historical accuracy of the biblical record.

The translations of the Bible today come from numerous archaeological records, which were copied by generation after generation over thousands of years.²⁵⁷ Not only do copies exist today that date back to before the time of Christ, but there are more ancient copies of the Scriptures in existence than of any other historical document.²⁵⁸ Many archaeological findings tend to support the accuracy of the biblical record.²⁵⁹ While it is not the purpose of this Article to catalogue the archaeological evidence for the biblical record, whole volumes have been written on the subject. The point is that it is undeniable that the biblical account is an historical record.²⁶⁰ The numerous copies of the scriptures, plus supporting archaeological and

of “free speech.”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

255. See *supra* note 219.

256. See *supra* Part V.A. for a discussion of the fact that since neither creation nor evolution can be conclusively proven, evidence for both should be allowed into the educational debate.

257. MCDOWELL, *supra* note 213, at 65-74.

258. *Id.* at 39-40.

259. See, e.g., WILLIAM FOXWELL ALBRIGHT, *THE ARCHAEOLOGY OF PALESTINE AND THE BIBLE* (1932); ALFRED J. HOERTH, *ARCHAEOLOGY AND THE OLD TESTAMENT* (1998); J.A. THOMPSON, *THE BIBLE AND ARCHAEOLOGY* (1982); Clifford Wilson, Does Archaeology Support the Bible?, *Answers in Genesis* (Jan. 24, 2008), <http://www.answersingenesis.org/articles/nab/does-archaeology-support-the-bible> (last visited Nov. 13, 2009).

260. Rich Deem, Is Our Copy of the Bible a Reliable Copy of the Original?, *Godandscience.org*, <http://www.godandscience.org/apologetics/bibleorg.html#FsEgLf8Lem2l> (last visited Nov. 13, 2009).

historical evidence, form a huge body of evidence about which the public has a right to know, and the government ought not to suppress this evidence in educating children.²⁶¹ The fact that much of this evidence is disputed means only that each person should be allowed to weigh the evidence for himself or herself—government's role for purposes of determining curriculum should be limited to determining that some evidence exists that, if believed, would support the accuracy of the biblical record.

The argument has been made that allowing consideration of the biblical record would also bring in every other myth about origins.²⁶² But historical records are not the same as myths and legends. Myths and legends are often mere oral traditions, which lack the credibility of a written record.²⁶³ The biblical account has been carefully copied and regarded as authoritative by a substantial number of people for thousands of years.²⁶⁴

In many cases, it is not difficult to make the determination between historical records and myths and legends because other accounts do not purport to be accurate accounts of history. Most people can tell the difference between fact and fiction.²⁶⁵ Myths, legends, and fables are a separate genre that can be studied for what they are—stories that can inform us about the people who told them. But ancient documents that contain what appear to be historical records should be presented to the public, even if some people contest their authenticity.²⁶⁶ Each person should be able to make up his or her own mind about the credibility of historical records.

261. *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

262. See, e.g., Frederick Edwards, *Why Creationism Should Not Be Taught As Science*, 3 CREATION/EVOLUTION J. 6, 9 (“[T]he introduction of ‘scientific creationism’ into the science classroom would only open a can-of-worms. Soon every crackpot theory that had adherents enough to start a lobby would have to be included.”).

263. For a discussion of creation myths in various cultures, see HistoryWorld.net, History of Creation Stories, <http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ab83>. Note that most are oral traditions, although a few were reduced to writing. See also Jerry Bergman, The Origin of Creation Myths, <http://www.creationism.org/csshs/v06n2p10.htm>; Egan, *supra* note 238 (discussing the differences between myth and history); John T. Stevenson, Genesis and Other Creation Accounts, <http://www.angelfire.com/nt/theology/02creat.html>.

264. McDOWELL, *supra* note 213, at 53-55.

265. The entrustment in our society of the well-being of the state to voters and the factual determination in both civil and criminal trials to juries depends on this very principle.

266. See discussion *supra* Part 2.A; see also Egan, *supra* note 238 (discussing the tension between myth and history in determining what to teach students about the past).

An important difference between a written historical record on the one hand, and myths, fables, and legends on the other, is that the latter are not based on first-hand testimonial evidence.²⁶⁷ As set forth above, the biblical record represents direct evidence of historical events. It purports to be a collection of solemn declarations by people who claimed either to have witnessed events first-hand or to have written under inspiration from God. The fact that the original documents have been lost does not change this—copies are generally given evidentiary value when the original document is unavailable.²⁶⁸

In contrast, myths, fables, and legends are stories with no known origin. “Legend” is defined as “an unverified popular story handed down from earlier times.”²⁶⁹ “Fable” is defined as, among other things, “[a] story about legendary persons and exploits” and “[a] falsehood; a lie.”²⁷⁰ “Myth” is defined as “[a] traditional story originating in a preliterate society” and “[a] fiction or half-truth.”²⁷¹ The distinguishing factor is that myths, legends, and fables are not based on direct testimonial evidence. They are stories, passed down from unknown sources. In legal terms, myths, fables, and legends are classified as hearsay, or second-hand evidence.²⁷² Hearsay is generally not accepted as evidence in legal cases because of its unreliability.²⁷³

Like a childhood game of telephone, myths and legends are stories passed down from person to person. The identity of the original speaker and the substance of what the original speaker said are unknown. But the biblical record is comprised of copies of written accounts by individuals who, for the most part, are known.²⁷⁴ The copies in existence today are nearly identical to the earliest known manuscripts, the Dead Sea Scrolls.²⁷⁵ Thus, the biblical record is not properly classified as a “myth,” because it contains direct testimonial accounts, a much more reliable form of historical evidence. Substantial evidence exists that the biblical record is a

267. Egan, *supra* note 238.

268. FED. R. EVID. 1003; FED. R. EVID. 1004. Strong evidence also exists as to the meticulous care with which ancient manuscripts were copied. MCDOWELL, *supra* note 213, at 53-54.

269. THE AMERICAN HERITAGE DICTIONARY 722 (2d College ed. 1982).

270. *Id.* at 484.

271. *Id.* at 827.

272. *See* 29 AM. JUR. 2D *Evidence* § 671 (2008) (“Hearsay is evidence of a statement which is made other than by a witness while testifying at the hearing, offered to prove the truth of the matter stated.”).

273. 29 AM. JUR. 2D *Evidence* § 668 (2008).

274. MCDOWELL, *supra* note 213, at 16-17.

275. *Id.* at 39-60.

highly reliable written record left by eyewitnesses, which has significant historical merit.²⁷⁶

The fact that many experts challenge this evidence is unsurprising.²⁷⁷ It is quite common in legal cases for each side to offer expert witnesses. However, none of these experts have personal knowledge of what actually happened in history. Experts who question the validity of archaeological findings that appear to support the accuracy of the biblical record could be as motivated by their opposition to religion as the experts who claim the archaeological record supports the Bible could be by their acceptance of religion.²⁷⁸

The point is, if substantial evidence exists, it is only fair to educate students about it, leaving it up to the students themselves to make up their minds. Since the biblical record purports to be an accurate reflection of history and is supported by substantial evidence, it should be a part of the curriculum. Historical evidence should not be suppressed simply because it may also have religious connotations; it should be suppressed only if there is clear evidence that it is inaccurate.²⁷⁹

Opponents of the use of the biblical record in educational curricula fail to show that the biblical account has no historical merit or educational value.²⁸⁰ The argument has been raised that the biblical account is not internally consistent because it contains contradictions.²⁸¹ Although the adherents of this viewpoint are entitled to their opinion, it is not strictly necessary to read the account this way.

276. See *supra* Part V.C.1 for a discussion of the historical validity of the Bible.

277. See Peter M.J. Hess, How Do I Read the Bible? Let Me Count the Ways, National Center for Science Education (July 26, 2009), <http://ncseweb.org/religion/how-do-i-read-bible-let-me-count-ways> (last visited Oct. 11, 2009).

278. *Id.* Query why the NCSE believes it has the authority to provide science teachers with a position statement on biblical interpretation.

279. *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

280. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982) (stating conclusively that religious evidence violates the Constitution because it has “no scientific merit or educational value”). But just because an account of history cannot be scientifically verified does not prove the account to be false.

281. See Wayne Jackson, Are There Two Creation Accounts in Genesis?, Apologetics Press (1991), <http://www.apologeticspress.org/articles/2194> (last visited Nov. 13, 2009) (explaining and resolving alleged discrepancies between the creation accounts in *Genesis* 1 and 2).

Some of the alleged conflicts arise as a result of attempting to read the biblical account in a purely naturalistic sense. But the creation is expressly represented to be miraculous. On the first day of creation, God is represented to have created light.²⁸² This is an account of the miraculous creation of light, even though the sun and stars are not represented to have been created until the fourth day. Since God is light, and He is represented in prophecy to light the new heavens and new earth in the absence of any sun, the fact that light is represented to exist before He created the sun does not necessarily create a conflict.²⁸³ Thus, the conflict is not unavoidable.

It is also said that the sequence in Genesis 1 conflicts with the sequence in Genesis 2. In Genesis 1, plants are created on the fourth day, but people are not created until the sixth day. However, Genesis 2 states that God formed man before any shrub of the field or plant of the field had yet sprung up.²⁸⁴ This does not necessarily create a conflict either. The plants created after Adam was formed are represented to be plants and shrubs “of the field,”²⁸⁵ or agricultural crops. This makes sense, since agricultural crops need tending by humans. Genesis 1 does not state that all plants were created on the fourth day; it says only that “vegetation” and fruit trees were created at that time.²⁸⁶ The two accounts can be reconciled without resorting to a conclusion of unavoidable conflict.

It is not the purpose of this Article to attempt to reconcile every alleged conflict. Others have much more expertise in this area.²⁸⁷ The point is simply that those who reject the biblical record cannot prove it could not be accurate. They must do more than employ Clarence Darrow’s “reasonable doubt” arguments to show the biblical record might not be true.²⁸⁸ They must affirmatively prove the biblical record could not possibly be true in order to censor it as an historical record.²⁸⁹

To summarize, the biblical record purports to be an historical account based on the testimony of witnesses who spoke directly with God and wrote under the direction of God. Although some people believe the biblical account is merely mythical and/or contains contradictions, they cannot

282. *Genesis* 1:3.

283. 1 *John* 1:5; *Revelation* 21:22.

284. *Genesis* 1:11-13, 26-31; 2:4-8.

285. *Genesis* 2:5.

286. *Genesis* 1:12.

287. See, e.g., Wayne Jackson, *Bible Contradictions—Are They Real?*, Apologetics Press (1983), <http://www.apologeticspress.org/articles/2174> (last visited Nov. 13, 2009).

288. See *supra* note 18 and accompanying text.

289. See *supra* Part V.C.1 for a discussion of the historical value of written evidence in Scripture.

prove any of these things. The opinions of these people are not a valid reason to reject the biblical record as a bona fide historical account. The fact that it cannot be verified by scientific evidence does not necessarily mean it is not true. As noted above, the “scientific” theory of evolution cannot be scientifically proven either. The theory of evolution lacks the direct evidence provided by the solemn testimony of witnesses contained in the biblical record. The theory of evolution also lacks the tradition of authority enjoyed by the biblical record.

The biblical record is just as “scientific” as evolution because the biblical record is evidence in and of itself, whereas evolution is merely a possible explanation.²⁹⁰ The biblical record, on its face, purports to be actual, testimonial evidence of historical events. In establishing historical facts, testimony carries more weight than circumstantial evidence.²⁹¹ The fact that the writers of a particular written artifact are now deceased is irrelevant in studying ancient history, since all witnesses have long since passed. The only question is as to the truthfulness of written accounts as compared to inferences and extrapolations made from available circumstantial evidence.

The bottom line is that the biblical record, like the theory of evolution, is supported by evidence. The manuscripts from which it is taken are written archaeological evidence that purports to document miraculous creation by God at the beginning of time, and they are supported at numerous points by other archaeological and historical findings.²⁹² The biblical record is not scientifically verifiable, but neither is the theory of evolution.²⁹³ The theory

290. See *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1268-69 (E.D. Ark. 1982) (“A scientific theory must be tentative and always subject to revision or abandonment in light of facts that are inconsistent with, or falsify, the theory.”). In contrast, historical evidence is evidence, not a theory, and is either accepted as credible or not accepted, but need not be falsified.

291. *Nichols v. State*, 591 N.E.2d 134, 135 (Ind. 1992); see also 40A AM. JUR 2D *Homicide* § 425 (explaining that in homicide trials, circumstantial evidence must be carefully scrutinized if it is not corroborated by direct evidence, but that circumstantial evidence alone may sometimes be sufficient for conviction); Steve Thompson, *Circumstantial Evidence in Criminal Law*, Associated Content (Oct. 20, 2006), http://www.associatedcontent.com/article/71948/circumstantial_evidence_in_criminal.html?cat=17 (last visited Nov. 13, 2009) (explaining that juries tend to give more weight to direct evidence, even though direct and circumstantial evidence are given equal weight in the eyes of the law).

292. See *supra* note 213 and accompanying text.

293. *McLean*, 529 F. Supp. at 1267 (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable). Neither explanation of the origin of life can be empirically tested or observed. Whether the origin of life occurred billions of years ago or thousands of years ago,

of evolution relies on certain scientific findings, some of which may contradict the creation account, but only if the existence of a God capable of miraculous creation is denied, as will be discussed below. The government should not take an official position on the question of origins.²⁹⁴ Each person should be able to make up his or her own mind based on the available evidence.

2. “Accounts of Supernatural Beings and Miracles Cannot Be True”

The next objection that has been raised to extra-scientific evidence of history is that it contains accounts of miraculous events.²⁹⁵ But the issue of origins is different from other areas of scientific study in that it concerns events that occurred long ago, to which the scientific method cannot be directly applied.²⁹⁶ In essence, the study of origins is the study of history. Since the scientific study of origins is also the study of history, the constraints of the scientific method cannot automatically be applied to screen out historical accounts of miracles.

If evolutionary scientists are going to step outside the bounds of “science” (as defined by themselves) and demand that history be taught, they must play by the rules of history.²⁹⁷ The realities of the methodologies of historical research do not allow for the restrictive limits of hard scientific research, because historical learning is often derived from written accounts

no one can observe it or test it today. See Gabriel Acri, *Persistent Monkey on the Back of the American Public Education System: A Study of the Continued Debate Over the Teaching of Creationism and Evolution*, 41 CATH. LAW. 39, 47-78 (2001) (noting that evolutionary theory rests on presumptions unexplainable by the scientific method).

294. *Perry Educ. Ass’n v. Perry Local Educators’ Ass’n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

295. *McLean*, 529 F. Supp. at 1267 (stating that science cannot take account of the supernatural).

296. *Id.* (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable). Neither explanation of the origin of life can be empirically tested or observed. Whether the origin of life occurred billions of years ago or thousands of years ago, no one can observe it or test it today. Nor can a miracle be empirically tested.

297. See *id.* Courts upholding a Darwinian interpretation of history violate their own rules. If creation must be rejected because it fails to meet the *McLean* standard, and is therefore historical evidence and not scientific, then evolution, which also fails to meet the *McLean* standard, must also be treated as history and not science.

by people who lived long ago.²⁹⁸ Since historical research, by necessity, must rely on the testimony of witnesses that cannot be scientifically verified, historians must consider a broader range of evidence than scientists allow for purposes of scientific research.²⁹⁹ The strict limitations of the scientific method are therefore inappropriate and unworkable when applied to history. In attempting to impose such limits, evolutionists impose an unfair double standard by requiring that other theories of history meet a standard they themselves are unable to meet.³⁰⁰

Historians also address different issues. The question historians must address is not what naturalistic conclusions can be drawn from measurable and testable evidence, but what actually happened in the past.³⁰¹ Certainly this is the question that should control for purposes of teaching children. As has been shown, the definition of science does not limit reality.³⁰² Thus, the versions of past events as re-created by historians are potentially different from the results scientific research would produce.

Scientists limit themselves to naturalistic explanations because their work is designed to produce knowledge that can be relied upon empirically.³⁰³ This does not mean that nothing inconsistent with these naturalistic assumptions could happen; it just means that scientists do not concern themselves with events outside these parameters. For example, it is useless for purposes of cancer research to rely on data regarding miraculous healing. The question whether miraculous healing occurs is not relevant to this research. If some people are cured miraculously, they would not need a scientific cure. The point of the research is to find a cure for the vast

298. Egan, *supra* note 238 (explaining the historian's dilemma: certain particulars can be proved, but their meaning is not certain). On the other hand, myths and stories provide meaning, but cannot be proven to be factually accurate.

299. Gerald W. Schlabach, A Sense of History: Some Components, <http://personal2.stthomas.edu/gwschlabach/courses/sense.htm> (discussing the facts that much of history is learned from the writings of people from the past, that the student of history must reconstruct from written evidence that cannot be empirically tested, and that the historian is heavily dependent on written evidence) (last visited Nov. 13, 2009).

300. *See supra* note 295.

301. Schlabach, *supra* note 299 (noting that where there is no written or archaeological record, historians can only offer their best guess). Such guesses cannot be authoritative. The historian's job is to find out from evidence what actually happened, and not to substitute his own speculation, where there is no evidence.

302. RATZSCH, *supra* note 41, at 93 (noting that there are many areas of reality to which science cannot speak).

303. *McLean*, 529 F. Supp. at 1267 (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable).

majority of the population for which miraculous healing is not available. But if a person was miraculously cured of a disease at some time in the past, the fact that scientific evidence cannot be produced to verify the healing does not change the status of the miraculous healing as an historical event. Accordingly, strict application of the scientific method cannot necessarily produce an accurate reflection of actual historical events.

Scientists often conclude that accounts of the supernatural such as God, angels, or miracles, in the biblical record are merely fairy tales. They take the position that supernatural explanations must be rejected in scientific theory.³⁰⁴ However, as explained above, the fact that scientific exploration cannot verify supernatural explanations does not mean these explanations cannot be true.³⁰⁵ Instead, the limitations inherent in the scientific method only limit the authority of scientists to make determinations of the truthfulness of these non-scientific accounts. In legal terms, scientists are not qualified as experts to testify as to matters pertaining to God, miracles, or the ancient past, because these things are beyond the scope of the scientific discipline.³⁰⁶

Yet scientists regularly speak as if their status as scientists allowed them to simply wave a magic wand over evidence they cannot explain and act as if it does not exist.³⁰⁷ These scientists are relying on a circular argument: Since scientific theory cannot countenance miracles, it must overlook them. And in turn, the lack of hard scientific evidence for the supernatural confirms scientific explanations. This would be fine if no evidence of miracles existed, but that is simply not the case.

Evidence of miracles does exist. From the same ground that evolutionists dig bones and fossils, archaeologists unearth ancient copies of the Scriptures.³⁰⁸ There is also archaeological evidence that tends to support the historical accuracy of the biblical record.³⁰⁹ This archaeological evidence can be measured and tested against other known historical events, the same way the rocks and fossils used to support evolution can, and it faces the same problems of proof with which evolutionists grapple. A great deal of

304. See NSTA, *supra* note 78 (“Because science is limited to explaining the natural world by means of natural processes, it cannot use supernatural causation in its explanations.”).

305. See *supra* Part IV (explaining that the scientific method does not limit reality).

306. See 31A AM. JUR. 2D *Expert and Opinion Evidence* § 40 (2009) (“Simply stated, in order to qualify as an expert, a witness must possess special knowledge of some subject on which the jury’s knowledge would presumably be inadequate without expert assistance.”).

307. See NSTA, *supra* note 78.

308. STROBEL, *supra* note 213, at 105 (discussing the discovery of the Dead Sea Scrolls).

309. *Id.* at 107.

study has gone into authenticating the biblical record through archaeology, and the biblical record has generally withstood this testing.³¹⁰

The biblical record begins: “In the beginning, God created the heavens and the earth.”³¹¹ This single statement contains: (1) a reference to ancient history: “In the beginning,” (2) a reference to a supernatural being: “God,” and (3) a reference to miracles or supernatural events: “created the heavens and the earth.” All three references are beyond the scope of scientific study.

The scriptural account expressly states that God exists, and that He does miracles.³¹² The creation of the universe is unabashedly averred to be miraculous. These are not merely miracles imagined by the proverbial mathematician struggling to solve a difficult equation. These are miracles drawn from an extremely well-documented historical account.³¹³

On the other hand, scientists correctly point out that they cannot measure and test miracles or the supernatural. The proper response in this situation, however, is not to insist on the truth of a theory that takes into account only the evidence that falls within the scope of one’s discipline, but to recognize that the answer may be beyond scientific ascertaining. For example, can anyone scientifically prove whether Atlantis existed? Sometimes the best answer is simply, “I don’t know.”

Scientists scoff at the idea of miracles because it seems to be a cop-out. The author has heard scientists laugh about cartoons depicting a creationist attempting to solve a difficult scientific calculation, failing, and then attempting to resolve the dilemma by saying, “then a miracle occurs!”³¹⁴ Where there is no supporting evidence of a miracle, the folly of such an approach is granted. But what about when the archaeological evidence itself contains evidence of a miracle?

There is a difference between a supernatural explanation that is merely proposed by an individual in light of certain phenomena, and writings found in historical artifacts describing supernatural events. While a proponent of a hypothesis should be required to verify his position, historical artifacts are

310. See *supra* notes 257-60; see also Bryant Wood, In What Ways Have the Discoveries of Archaeology Verified the Reliability of the Bible?, Associates for Biblical Research (1995), <http://www.christiananswers.net/q-abr/abr-a008.html> (last visited Nov. 13, 2009).

311. *Genesis* 1:1.

312. Jesus cited the miracles he performed as evidence backing up his claim to be God. *John* 10:38; 14:11; see also *John* 20:30-31; *Acts* 2:22.

313. See *supra* note 310 for sources detailing the archaeological support for the biblical record.

314. See, e.g., Michael Shermer, Then a Miracle Occurs . . . , National Center for Science Education, <http://www.ncselegacy.org/rncse/24/6/then-miracle-occurs>, sec. “Defending Science,” para. 8 (last visited Nov. 13, 2009).

not hypothetical premises that require proof. It is certainly prudent to compare historical writings with other historical artifacts to determine, as well as a present-day observer can, the reliability of what is written, but the fact remains that what comes to us from antiquity is evidence one either accepts or rejects.³¹⁵ Just as a scientist can study bones and fossils and make findings that can be compared to other available data, so also another scientist can study the writings in historical documents, such as the Scriptures, and compare both the manuscript itself and what is written with other historical data. The difference is that the writings are not a hypothesis someone proposes and verifies against other data through experimentation. The writings *are* the data. It just so happens that the scriptural evidence contains written accounts of supernatural events.

This evidence, which consists of the biblical record itself and current and historical facts that tend to confirm it, is evidence that tends to disprove evolutionary theory. So while it is true that explanations must be rejected for purposes of experimentation, scientists who care about the accuracy of their findings should draw a distinction between supernatural *explanations* and *evidence* of the supernatural. Supernatural explanations for the results of a scientist's test surely should be rejected. However, rejecting historical evidence simply because it records supernatural events creates the risk of reaching arbitrary and meaningless conclusions by failing to consider all the evidence. It is like a garbage collector concluding that, since all he knows is garbage, the whole world must be garbage! As the saying goes, "garbage in, garbage out!" Conclusions are only as good as the data upon which they are based.

a. Age of the Universe

The controversy over the age of the universe provides an example of the futility of attempting to draw "scientific" conclusions in the face of historical accounts of the miraculous. Scientists point to evidence that the universe is very old, such as the results of carbon-14 testing and the distance to visible stars, as proof that the biblical account cannot be true.³¹⁶ The argument from starlight is easy to understand. Scientists have measured the speed of light and determined the distance light travels in a year, which

315. See *supra* Part V.C.1.a for a discussion of direct and circumstantial evidence relating to the study of history.

316. Ken Miller, The Appearance of Age: It's Morning in Creation-Land, No Answers in Genesis, http://www.noanswersingenesis.org/appearance_of_age.htm (last visited Nov. 13, 2009).

is known as a “light-year.”³¹⁷ Scientists have then measured the distance to various visible stars and found that most of them are more than a few thousand light-years away.³¹⁸ Thus, they have concluded that the universe must be more than a few thousand years old, or these stars would not be visible, since the light from them would not yet have reached Earth unless the universe was very old.³¹⁹ The arguments from carbon-14 and radiometric dating are similar. Certain molecules are thought to decay at a constant rate.³²⁰ Scientists measure the levels of decay in fossils and artifacts and conclude that the fossils or artifacts must be very old. But these are “straw man” arguments because they consider only “scientific” evidence.

This type of dating is only valid if certain assumptions made by scientists are in fact true. Scientists must make assumptions about the baseline, the rate of change, and numerous other variables, in order to assign dates. These assumptions about the past may or may not be correct.³²¹ If any of these variables proves to be incorrect, their findings could be wrong.³²² But even if all of their assumptions are otherwise correct, miraculous creation

317. NASA, Ask an Astrophysicist, http://imagine.gsfc.nasa.gov/docs/ask_astro/answers/980211a.html (last visited Nov. 13, 2009).

318. *Id.*

319. See Robert C. Newman, Light-Travel Time: Evidence for an Old Universe, Interdisciplinary Biblical Research Institute, <http://www.ibri.org/Tracts/ltrmetct.htm> (last visited Nov. 13, 2009).

320. See Mike Riddle, Doesn't Carbon-14 Dating Disprove the Bible?, *The New Answers Book* (Sept. 20, 2007), <http://www.answersingenesis.org/articles/nab/does-c14-disprove-the-bible> (last visited Nov. 13, 2009).

321. See AnswersInGenesis.org, Deflating Billions of Years (2009), <http://www.answersingenesis.org/get-answers/features/billions-of-years> (last visited Nov. 13, 2009).

322. For example, there may be problems with the idea that the speed of light is constant, and that nothing can travel faster than the speed of light. See STAN GIBILISCO, UNDERSTANDING EINSTEIN'S THEORY OF RELATIVITY 13 (1983) (“How can the speed of light be so absolute? Relativity theory simply postulates that it is. A second axiom mandates that nothing can go faster than light: not material objects, not gravity, not electric or magnetic forces, not even facts or ideas!”). Under Einstein's own theory of relativity, every light ray in existence must be moving, with respect to every other light ray in existence, at speeds varying infinitely between zero (when compared with other light rays moving in a parallel direction) and double the speed of light (when compared with other light rays moving in an opposite direction). Speed is a measure of distance over time. *Id.* at 121. Thus, attempting to hold the speed of light constant while measuring the change in distance as to every other reference point would reduce time to shreds of confetti. See also Zeeya Merali, *Splitting Time from Space—New Quantum Theory Topples Einstein's Spacetime*, SCI. AM., Dec. 2009, at 18-21, available at <http://www.scientificamerican.com/article.cfm?id=splitting-time-from-space>.

would destroy the naturalistic assumptions upon which evolutionists rely.³²³ The biblical record represents historical evidence that events have occurred that are inconsistent with the assumptions scientists use to calculate the age of the earth.³²⁴

For example, Adam was reportedly created as an adult man. According to the record, Adam was not an infant; he was immediately given a wife and a job!³²⁵ If Adam had been examined by a scientist on the day he was created, how old would Adam have been determined to be? He appeared to be at least 18 years old, but (as reported by the biblical account) he was in fact not yet one day old.³²⁶ This is an example of miraculous creation with apparent age, i.e., created things appearing to be older than they actually are.

Accounts of miraculous creation with apparent age are also present in the New Testament. In feeding the 5,000, Jesus reportedly created wheat that had already been prepared as bread and fish that never lived, but were already caught and prepared as food.³²⁷ How old were the bread (or wheat) and the fish? The first miracle Jesus is reported to have performed was changing water to wine.³²⁸ As everyone knows, wine is an aged product created from grapes that cannot be created in a day. Thus, the wine had apparent age.

Evolutionists claim that it would be deceptive of God to create things with apparent age.³²⁹ However, there are numerous instances of miraculous creation with apparent age in the biblical record. There is no ground for a charge of deception against God for simply creating things in the state in which they would be most useful for the purposes for which they were created. For example, was God being deceptive by creating Adam as a man rather than an embryo? Was God required to create Adam in an incubator and raise him as a child simply to avoid a charge of being deceptive? Was God required to wait billions of years while the earth cooled (according to the big bang viewpoint), twiddling his fingers, until the earth reached a state

323. Interestingly, God is represented as both the essence of light and not subject to time in the biblical record. 1 *John* 1:5; *Psalms* 104:2; *Isaiah* 60:19-20; *Job* 38:19; *Psalms* 90:2-4; *John* 1:1-4. Perhaps there are things about light known to God that earthbound mortals have not yet grasped.

324. *See supra* note 310.

325. *Genesis* 2:15-25.

326. *Id.*

327. *Matthew* 14:13-21.

328. *John* 2:1-11.

329. Miller, *supra* note 316.

in which He could create life?³³⁰ Does it make sense for God to create billions of stars, most of which could never be seen for millions of years? The objection of “deception” arises solely from imposing naturalistic requirements on God that are not present in the biblical record.³³¹ Thus, the assumptions upon which evolutionists rely in attempting to date the creation of the world and universe are destroyed by the historic accounts of supernatural creation.³³²

It is only fair to note that some difficulties exist with the idea of apparent age, particularly with regard to the observation of astronomical events occurring millions of light-years away.³³³ But this difficulty arises from the imposition of a double standard on God, as He is depicted in the biblical record. God is represented as infinitely capable, and therefore not subject to naturalistic limitations.³³⁴ If, as the biblical record provides, God spoke the universe into existence,³³⁵ and made the stars to be seen from earth,³³⁶ He certainly would have the power to make distant stars visible, even if such a phenomenon is not explainable under current scientific formulations. The biblical record contains numerous accounts of miraculous events, many of which involve vision or visibility.³³⁷ Moreover, it is possible that our existing understanding is incomplete. Consequently, limitations imposed by current scientific understanding do not necessarily “prove” the biblical accounts are false or that God acted deceptively. At any rate, it seems

330. See *Job* 38 (in which God reportedly questions Job to show Job’s lack of knowledge of what took place during creation).

331. PATTERSON, *supra* note 103, at 139 (noting that if God actually created from nothing, then God preceded and created nature, not vice versa). Creationism not only suggests but requires that God not be bound by naturalistic requirements of scientists.

332. For example, since the biblical record states that God sustains the universe on a daily basis (*Hebrews* 1:3) and knows the future (see *Genesis* 15:5, in which God promises Abraham, who was old and childless at the time, that his offspring would outnumber the stars in the sky), God could have created streams of light, starting at the moment of creation, that would accurately depict astronomic events throughout the existence of the universe, such that observers on Earth could view, contemporaneously or nearly so, events that would take millions of years to reach Earth under normal circumstances.

333. See, e.g., Newman, *supra* note 319 (explaining that if light was created “in transit,” our perception of astronomical events would be a mere illusion or deception by God).

334. See *Genesis* 18:14 (“Is anything too hard for the LORD?”); *Luke* 1:37 (“For nothing is impossible with God.”); *Joshua* 10:13-14 (reporting that the sun stood still in the sky for an extra day).

335. *Hebrews* 11:3.

336. *Genesis* 1:14-19.

337. See, e.g., *Daniel* 10:7 (stating that Daniel saw an angel which the other with him could not see); *Matthew* 2:2, 9-10 (stating that Magi from the east followed a star to find Jesus); *Acts* 9:3-7 (stating that Paul saw Jesus but those with him saw only a light).

grossly arrogant and unfair to accuse God of deception for merely creating immediately visible stars, as opposed to leaving the skies empty, if it is accepted that God created everything else instantaneously as set forth in the biblical record.³³⁸ In fact, rejecting the biblical account of creation also amounts to an accusation of deception against God.

The claim by many scientists that the universe is billions of years old, which appears to contradict the biblical record, is only necessarily valid if the evidence within the biblical record can be ignored or dismissed as untrue. Science cannot disprove the Bible, since ancient events cannot be observed or tested.³³⁹ Science merely reaches a different conclusion because it fails to consider the biblical record. The miracles recorded in the biblical record are certainly not scientifically provable, but they are supported by the historical evidence science cannot disprove, which leaves open the possibility that they could be true.

b. “Miracles” in Evolutionary Theories

The evidence for evolution is itself not without problems. Even without the evidence of supernatural beings and events, purely naturalistic explanations fail. Evolutionary ideology must accept at least two “miracles,” whether or not the events are so termed. The first is the very existence of the universe, and the second is the existence, multiplicity, and diversity of living beings.

The fact that the universe exists cannot be explained in purely naturalistic terms. Taking the position that the universe always existed lacks evidentiary support and simply avoids the issue. Even scientists agree the universe must have had some beginning.³⁴⁰ The problem is explaining that beginning.

338. The biblical record specifically states that the universe is not a closed system, but that God continues to exert an active role in “sustaining” the universe. *Hebrews* 1:3. This is inconsistent with the “blind watchmaker” idea and could explain phenomena such as the origin and persistence of life, which are not explainable under purely scientific or naturalistic processes, as set forth below. This sustaining power, as depicted on the face of the biblical record, could also account for the fact that distant astronomical events are visible from earth through a continuing supernatural work of God.

339. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable).

340. John Carl Villeneuve, *Beginning of the Universe*, *Universe Today* (July 30, 2009), <http://www.universetoday.com/guide-to-space/the-universe/beginning-of-the-universe/> (last visited Nov. 13, 2009).

A basic tenet of science and rationalistic thought is that something cannot come from nothing.³⁴¹ In other words, both sides of an equation must balance. Although leading evolutionary thinkers have gone to great lengths to obfuscate the problem by papering it with complex “higher math,” the big bang theory remains an irresolvable dilemma: $0 \neq \text{Universe}$. All naturalistic explanations of the ultimate beginnings of the universe violate the fundamental rule that both sides of the equation must balance.

The biblical explanation introduces a supernatural being that created the universe. While this explanation is not scientific, its advantage is that it works. God is expressly represented to be infinite in the Scriptures.³⁴² This is not a hypothesis pulled from thin air—it is taken directly from the evidence! Introducing an infinite creator balances the equation, because infinity plus anything is still infinity: $\text{Infinity} + 0 = \text{Infinity} + \text{Universe}$. Moreover, introducing God as creator resolves the evidence of design to which intelligent design advocates point.³⁴³

Another problem with the big bang theory is that it assumes the ability of an explosion to create a universe.³⁴⁴ This too requires a miracle. The law of conservation of matter tells us that explosions do not create things.³⁴⁵ The energy from explosions can be harnessed to do work, as in, for example, an internal combustion engine. Explosions can also be used for military purposes, such as in guns, bombs, and missiles. However, none of these explosions have ever been known to create anything. Since the big bang theory remains the only alleged example of an explosion creating a complex system, and of course it is empirically untested and unobserved, this theory is an example of a supernatural or miraculous explanation.

The big bang theory breaks science’s own rule by introducing a supernatural or miraculous explanation that is simply hypothesized but not

341. See NASA, Conservation of Mass, <http://www.grc.nasa.gov/WWW/K-12/airplane/mass.html> (“The conservation of mass is a fundamental concept of physics along with the conservation of energy and the conservation of momentum. Within some problem domain, the amount of mass remains constant—mass is neither created nor destroyed.”).

342. *Psalm* 90:2.

343. Jay Wesley Richards, *Proud Obstacles and a Reasonable Hope*, in *SIGNS OF INTELLIGENCE: UNDERSTANDING INTELLIGENT DESIGN* 51 (William A. Dembski & James M. Kushiner eds., 2001) (noting that ID advocates infer a designer from the appearance of design, rather than deducing the fact of God from written evidence in Scripture).

344. WERNER GITT, *STARS AND THEIR PURPOSE* 185 (2006).

345. WEBSTER’S NEW UNIVERSAL UNABRIDGED DICTIONARY 433 (1996) (defining “conservation of mass” as “the principle that in any closed system subject to no external forces ... matter cannot be created or destroyed”). Thus, unless the universe either has always existed or was subject to a force external to it (God?), the big bang theory cannot explain how matter came from non-matter.

found in any historical evidence. No amount of mathematical complexity in the scientific theory can get around the fact that the universe could not have come from nothing, or even from a small particle. Scientists simply introduce a miracle, the big bang theory, by way of hypothesis and attempt to stretch the theory to make it fit the evidence they have found.³⁴⁶ On the other hand, the biblical account represents historical evidence that a supernatural, creative being exists who is capable of both designing and creating the universe.³⁴⁷

Explaining the multiplicity and diversity of living beings presents another serious hurdle for evolutionists. Although attempting to catalogue the evidence for evolutionary change from one type of living being to another over time is beyond the scope of this Article, the fact remains that evidence for “macroevolution” is extremely sparse, if not completely lacking.³⁴⁸ On the other hand, evidence for reproduction of living beings after their kinds, as set forth in the biblical account, is overwhelming. Every day, human children are born to humans, cats give birth to kittens, dogs to puppies, and so forth, with every type of animal known to man. If you plant corn, you get corn. Acorns produce oak trees, and pinecones produce pine trees. The law of reproduction after kinds appears to be as uniformly followed as the law of gravity.

The minor changes documented by scientists as evidence for evolution do not undermine the law of reproduction after kinds. Fruit flies have not become anything other than fruit flies as a result of purely natural mutation.³⁴⁹ Scientists studying fruit flies have claimed that new species have been formed.³⁵⁰ However, “species” is a narrow, arbitrary term created by scientists, most of whom are evolutionists and therefore have an interest in proving the creation of new life forms through evolutionary processes.³⁵¹

346. Jason Lisle, *The Big Bang: God’s Chosen Method of Creation?*, Answers in Genesis (Nov. 20, 2007), <http://www.answersingenesis.org/articles/am/v3/n1/big-bang-gods-chosen-method> (stating that evolutionary scientists are continually forced to revise the big bang theory as scientific knowledge advances).

347. Evidence such as the “red shift” may be consistent with supernatural creation, since a certain amount of expansion of the universe would be required to keep the universe from collapsing upon itself due to gravitation. See GIBILISCO, *supra* note 322, at 34 (explaining that the red shift convinced Albert Einstein that the universe is expanding).

348. PEARCEY, *supra* note 131, at 158-65; see also Joseph Boxhorn, *Observed Instances of Speciation*, The TalkOrigins Archive, <http://www.talkorigins.org/faqs/faq-speciation.html> (last visited Nov. 13, 2009).

349. PEARCEY, *supra* note 131, at 160-61.

350. Boxhorn, *supra* note 348.

351. *Id.* (setting forth the various views in attempting to define “species”).

The Bible does not deny changes within a “kind.”³⁵² It asserts only that God created each kind “after its kind.”³⁵³ Therefore, in order to disprove the accuracy of the biblical record, evolutionists must affirmatively show that new “kinds” of creatures have been created.

The biblical term, “kinds,” is a broader term.³⁵⁴ The assertion that new “species” have been formed by natural selection does not necessarily mean that living beings do not reproduce after their kinds.³⁵⁵ Only if fruit flies, as a result of purely natural reproduction, produced descendants that are completely different kinds of creatures would evolutionists have a valid claim that the law of reproduction after kinds has been disproved by science. Scientists speculate that the minor observable variations continue in a linear path and eventually give rise to macroevolution.³⁵⁶ However, such speculation involves the introduction of a “miracle”—a violation of the generally observable rule that life reproduces after kinds.³⁵⁷ This is not a supernatural explanation found in any historical account, but a supernatural explanation imposed by scientists for the sole purpose of making their ideas work.

Moreover, purely naturalistic processes cannot explain the beginning of life from “primordial soup,” as the evolutionary theories purport to do. “It does not take a rocket scientist” to realize that life is far too complex to have sprung into existence by some cosmic accident.³⁵⁸ This is the argument creationists and intelligent design theorists make, which has been set forth in greater detail in their works.³⁵⁹ Evolutionists criticize this argument for being “unscientific,”³⁶⁰ but the fact that the inference of supernatural creation or intelligent design is not drawn from scientific

352. See, e.g., *Leviticus* 19:19 (forbidding the Israelites from crossbreeding cattle).

353. *Genesis* 1:11-25.

354. See *Genesis* 1:24; BYRON C. NELSON, *AFTER ITS KIND* 18-20 (1927); *DARWIN ON TRIAL*, *supra* note 79, at 68.

355. *Id.* Although “kinds” is not a scientific term, it is the term used by God if the historical record is accepted on its face, and it is readily understandable to the average person.

356. WERNER GITT, *DID GOD USE EVOLUTION?* 84 (2006) (citing scientists who subscribe to complete changes in kinds over eons of time).

357. NELSON, *supra* note 354, at 19-20 (noting that while there are variations within a kind, one life form cannot transform to an entirely different kind).

358. See, e.g., MICHAEL J. BEHE, *DARWIN'S BLACK BOX* (1996).

359. See, e.g., WILLIAM A. DEMBSKI & JONATHAN WELLS, *THE DESIGN OF LIFE* (2008); *SIGNS OF INTELLIGENCE*, *supra* note 343.

360. University of California Museum of Paleontology, *Background on Intelligent Design*, <http://evolution.berkeley.edu/evosite/Roadblocks/IIIC1bIntelligentDesign.shtml> (last visited Nov. 13, 2009).

experimentation is irrelevant. After all, scientists are drawing exactly the same type of inferences in accepting Darwinian theory.³⁶¹ Evolutionists simply limit their speculation to purely “naturalistic” explanations.

Finally, the meaning of “naturalistic” is subject to debate. From whose point of view should “supernatural” be determined? To a native living in a remote Amazon village, air travel by humans might appear “supernatural.” But a determination by such an individual has no impact on the existence or non-existence of airplanes. Moreover, airplanes are not considered “supernatural” from the standpoint of people familiar with modern technology. No one has ever seen a universe begin. If scientists are limited to observable phenomena, then the beginning of the universe is by definition “supernatural.”

Thus, any explanation of origins must necessarily contain some type of supernatural explanation. Because no currently observable natural process can explain the existence of the universe and the diversity of life, one’s options are to believe the speculation of scientists who introduce supernatural explanations, such as the big bang theory and macroevolution, or to believe the historical record, which states that God did these things miraculously. Those who accept the biblical record at face value are on better ground because they are basing their faith on actual historical data.³⁶² The miraculous events set forth in the biblical record may not be verifiable by scientists, but this does not necessarily mean the accounts are false.

3. “Religious Accounts Cannot Be True”

The final, and perhaps most divisive, objection raised to creationist explanations of origins is that they are religious.³⁶³ Religion brings out powerful emotions in people, to the point that people of differing beliefs have difficulty understanding another point of view. When people become hardened in their positions without regard to the evidence, the only peaceable resolution may come from “agreeing to disagree.” However, it is possible to have a productive religious discussion if everyone chooses to keep an open mind. No one wins when one side attempts to drown out the voices of others in hopes of convincing the other side to change its point of

361. RATZSCH, *supra* note 41, at 22-23 (noting that evolutionary science presumes upon the “uniformity of nature,” i.e., that natural events in the past have always been subject to the same natural laws we observe today). The “uniformity principle” itself is not scientifically testable by observation.

362. See *supra* Part V.C.1.b for a discussion of the historical value of written Scripture.

363. National Center for Science Education, *The Pillars of Creationism* (Oct. 17, 2008), <http://ncseweb.org/taking-action/pillars-creationism> (last visited Nov. 13, 2009).

view.³⁶⁴ In such cases, the ideas become secondary, and the real question becomes who can gain control and impose their points of view on others. The only fair and productive means of resolving religious disputes is to examine the evidence with an open mind, just as disputes regarding other subjects are resolved.³⁶⁵

In other words, the best way to resolve a controversy is for everyone to search for the truth and be willing to accept it. Truth, not compromise, brings unity, because what is true is true for everyone.³⁶⁶ Controversies arise because people consult only their subjective beliefs about an issue. If every observer were willing to set his or her subjective notions aside and search the objective evidence with a desire only for the truth, the basis for the controversy would disappear.

Compromise can never bring peace because it puts those who know or have experience with something on the same level as those who speak to issues about which they have no knowledge.³⁶⁷ Compromises tend to derive from power struggles within the group of people attempting to reach a consensus.³⁶⁸ There is not necessarily any connection between the results of

364. See MindTools.com, Conflict Resolution, http://www.mindtools.com/pages/article/newLDR_81.htm (last visited Nov. 13, 2009) (pointing out that competitive personalities attempt to overpower others in resolving conflicts); H. Michael Sweeney, Twenty-Five Ways To Suppress Truth: The Rules of Disinformation, <http://www.whale.to/m/disin.html> (last visited Nov. 13, 2009) (arguing that when one side of a conflict attempts to drown out other perspectives, truth is usually suppressed, not discovered).

365. See MindTools.com, *supra* note 364 (suggesting that the parties to a dispute seek to establish objective facts and work toward a solution).

366. Arguing there is no absolute truth is useless for several reasons. First of all, such a stance is a mere cop-out. Even children know the difference between truth and lies. Secondly, the scientific method demands that theories be falsifiable. If there is no such thing as truth, scientific theories cannot be falsified and the entire discussion is pointless. Finally, if reality is different for each individual, murderers could simply argue that the crime was a mere delusion. Clearly the victims would not have chosen their fate, so truth cannot be merely a fabrication in the mind of each person. Since it is possible for one person to end the life of another, the only reasonable conclusion is that reality and truth exist independently of ourselves, and are confirmable by anyone who has the willingness to do so.

367. See Steve Kangas, Myth: Scientific Consensus Is Not the Best Way To Discern Truth, <http://www.huppi.com/kangaroo/L-consensus.htm> (opining that consensus is not necessarily the best means to resolve complex technical problems). Unfortunately, Kangas subsequently resorts to name-calling and violates his own principle (i.e., that those who opine on issues outside their field of expertise are “cranks”) by opining that since theological controversies exist, there can be no correct answer, despite the fact that Kangas, presumably, is not an expert on theology.

368. See *supra* note 364.

a compromise and the truth.³⁶⁹ As a result, people who have greater knowledge become frustrated, because they feel they are being forced to accept notions they know are incorrect in order to keep the peace. Moreover, some people have a vested interest in obscuring the truth, because it could jeopardize their power or position. Thus, the best way to resolve controversies is for everyone to set aside personal prejudices and seek the truth.³⁷⁰

Seeking the truth about history requires something other than a purely scientific determination.³⁷¹ Since hard science can only make determinations through measuring and testing, scientists are no more qualified than anyone else to find the truth in matters of history and religion.³⁷² Scientists have no basis for insisting that an historical record cannot be accurate simply because it is contained in a religious document. Furthermore, they cannot demonstrate that religious concepts are not true.³⁷³ Thus, the limitations of the scientific method do not apply to the question of whether the biblical record is an accurate reflection of history.

People often make the assumption that religious ideas must be ignored as a practical matter.³⁷⁴ Whether or not these people realize it, the corollary to this stance is that religious ideas cannot be true. If something is true, it will usually impact everyday life at some point—this is how we verify that statements or ideas are true. If a statement or idea never has any impact on everyday life, people often infer that the statement or idea is not true. In fact, the biblical record expressly states that God has impacted the natural world in various ways, including supernatural creation.³⁷⁵ It also makes

369. For example, legal settlements generally contain language stating that the defendant does not admit fault.

370. *See* State v. Clark, 924 A.2d 542, 546 (N.J. 2007) (explaining that courts aim to resolve conflicts by seeking the truth).

371. *See supra* notes 297, 299 (explaining that history depends on written accounts and is thus not a “hard” science, susceptible to being determined by empirical, observable processes).

372. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable). Religion and much of history are not subject to measuring and testing.

373. *Id.* Religious concepts are not amenable to measuring or testing.

374. *Edwards v. Aguillard*, 482 U.S. 578, 599 (1987) (Powell, J., concurring) (“Concepts concerning God or a supreme being of some sort are manifestly religious[.]. These concepts do not shed that religiosity merely because they are presented as a philosophy or as a science.” (quoting *Malnak v. Yogi*, 440 F. Supp. 1284, 1322 (D.N.J. 1977), *aff’d per curiam*, 592 F.2d 197 (3d Cir. 1979))).

375. *See, e.g., Genesis* 1-2 (detailing the account of God at Creation).

certain commands and sets forth consequences.³⁷⁶ In so doing, the record forecloses the possibility of simply ignoring it as irrelevant.

People who say religious ideas must be ignored in searching for the truth about origins (or anything else) are in effect saying all religious ideas are false. Even Supreme Court justices have commented that concepts concerning God or a supreme being are “manifestly religious” and that these concepts do not shed their religiosity merely by being presented as philosophy or sciences.³⁷⁷ By mandating that these subjects be banned from schools, they are effectively inferring that these concepts cannot be true, because if they are true, the Court is placing teachers in a position of being forced to misrepresent the available facts about origins to students.

But closer examination reveals that this is simply an attempt to avoid the issue. Why should all religious ideas be false? What evidence is there for reaching such a conclusion? Even one true religious statement undercuts the statement that all religious ideas are false. But many religious statements are known to be true. For example, murder is wrong.³⁷⁸ Jerusalem was the capital and center of worship in ancient Israel.³⁷⁹ These religious statements, and others too numerous to list, are known to be true. Thus, the statement that all religious statements are false is itself false. Granting the assumption that untrue religious statements have been made, the most that can be said in opposition to religion is that some religious statements are false. The question then becomes: which religious statements are true, and which are not? A person cannot hide behind the smokescreen that all religious statements are false.

If opponents of religion cannot prove all religious statements are false, they have no basis for arguing that all religious documents are automatically disqualified from being considered as possible historical explanations.³⁸⁰ If some religious documents are true, then advocates of secularism must deal with the issue of which statements in religious

376. See, for example, the authoritative moral commands in the Sermon on the Mount in *Matthew* 5-7, which was reportedly given by Jesus while He was performing miracles and claiming to be God. See also *Matthew* 9:4-6.

377. *Edwards*, 482 U.S. at 599.

378. See *Exodus* 20:13.

379. See *2 Samuel* 5-6.

380. When government becomes involved in censoring historical evidence simply because it has religious connotations, the First Amendment is offended. See, e.g., *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

documents are true. Therefore, it is unfair to assume that simply because an historical document is religious in nature, it cannot be historically accurate. Evolutionists and educators cannot simply blind themselves from the evidence of history provided by the biblical record. A thorough search for truth requires an examination of all evidence, religious and non-religious, in a fair and objective manner. Therefore, the fact that the biblical record is religious in nature does not prevent it from being considered as an historical record.³⁸¹

Some people who would not go so far as to say that all religious statements cannot be true nevertheless argue that religious views must be ignored in public life because religious ideas are merely personal.³⁸² People often claim that each person is entitled to his or her own beliefs about God. This is certainly true.³⁸³ But controversies do not arise from things people believe in the confines of their own minds. Controversies arise from the words and actions taken by people, based on their beliefs, when they come into contact with other people. When controversies arise, it is useless to say that a person is entitled to believe what she wants to believe. Beliefs give rise to words and actions, and words and actions to controversies. The only way to resolve the controversy, short of simply imposing one's view on others, is to examine the evidence.

To demand that religious views must be ignored in public life is to impose an atheistic mindset on people. It is essentially to force people to act as if religious records are not true, whether or not they believe them.³⁸⁴ People should be able to examine the evidence in an objective manner and

381. Since the biblical record is religious (as well as historical), not only may it be considered, but also if it is categorically dismissed by government, the First Amendment is offended. *See Epperson*, 393 U.S. at 104; *Bd. of Educ. v. Pico*, 457 U.S. 853, 866-67 (1982); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982) (explaining that since secondary effects which advance religion are not constitutionally fatal, religious information should only be banned if it has no scientific merit or educational value as science).

382. *See, e.g., Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520 (1993) (discussing the interplay between constitutional free exercise of religion and limits on the right of the state to ban certain religious actions, such as animal sacrifice); Keep Your Religion to Yourself!, posting of jjjones474 to <http://www.thestjohnssun.com/node/810> (last visited Nov. 13, 2009) (complaining about religious bumper stickers); Keep Your Religion to Yourself!, posting of Derek Torres to <http://www.management-issues.com/2009/2/17/blog/keep-your-religion-to-yourself.asp> (last visited Nov. 13, 2009) (“There’s a place for every person in the workplace, but there doesn’t necessarily need to be a place for any religion.”).

383. U.S. CONST. amend. I.

384. *See Haynie, supra* note 25, at 247.

to make an informed decision. People should also be able to take action based on their fair assessment of the evidence without feeling browbeaten into acting as though the whole endeavor was a mere fantasy.³⁸⁵

Another argument made against religious evidence is that each person is entitled to his or her own conception of God.³⁸⁶ Without saying so in so many words, the apparent conclusion of this argument is that religious evidence should be disregarded to preserve the ability of each person to believe what he or she wants to believe. But this is an unsatisfactory approach as a public policy matter for purposes of education. Education should set forth, in an objective manner, whatever evidence is available, leaving it to people to consider for themselves the implications of the evidence and to debate them with others. It is not the job of the educator to protect people from evidence they do not wish to consider, especially when such evidence has a religious basis and corresponding constitutional protection.³⁸⁷

Moreover, the claim that God is whatever a person wants him to be is fallacious. First of all, a God who exists only in the minds of each individual is no God at all, but a mere figment of the imagination. To say that God exists only in the imagination is to deny the existence of God.³⁸⁸ Such a “God” could have no authority over morality and certainly could not create a universe. Second, to say that God exists only in the imagination blinds oneself to the historical evidence in which people who have gone before us solemnly claimed to have come into contact with a very real individual, a supernatural, all-powerful, creative being who claimed to be God.³⁸⁹ The historical evidence bears witness of miracles that were seen firsthand by numerous individuals. The biblical record, on its face, does not speak of imaginary beings or events, but of real, albeit supernatural, beings and events that were witnessed in the same manner by all who were

385. PATTERSON, *supra* note 103, at 10-11 (“[N]o teacher should ridicule a student for thinking a certain way.”).

386. *See, e.g.*, Diana L. Eck, What is Pluralism?, The Pluralism Project at Harvard University, http://pluralism.org/pages/pluralism/what_is_pluralism (last visited Nov. 13, 2009). Note that the goals are “dialogue” and an “encounter of commitments,” but not an open examination of the evidence for and against each view.

387. *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 637 (1943) (“[Schools should scrupulously protect the] Constitutional freedoms of the individual, if we are not to strangle the free mind at its source and teach youth to discount important principles of our government as mere platitudes.”).

388. *Romans* 3:3-4 (Paul writes that God is true, whether man believes in Him or not).

389. *John* 1:1-3, 14.

present.³⁹⁰ Since evidence exists of a real individual who claims to be God, it is pointless to claim that God exists only in the imagination. The question is whether the evidence is true.

Thus, it is unfair to conclude that the biblical record cannot be historically accurate simply because it is religious. If every historical artifact that contained religious content had to be ignored for purposes of historical value, we would be denied much we have learned about history.³⁹¹ As we have seen, religious statements in historical artifacts might be true, but they might not; either way the relative truth of such statements is not empirically measurable or testable.³⁹² No basis exists for categorically concluding that all religious statements in historical artifacts cannot be considered as evidence of what actually transpired in the past. In legal terms, the fact that statements in historical artifacts are religious in nature goes to the credibility of the evidence, not its admissibility.³⁹³ Religion may induce passions in people, and concededly the ancient authors would have been subject to the same passions. However, it cannot be concluded that simply because the writing is religious, it is not true.³⁹⁴ So once again, the only resolution is a fair examination of the evidence.

With regard to the study of origins, the available evidence falls into a few basic categories. There are the ancient writings that contain solemn declarations of eyewitness accounts of events. This evidence is religious,

390. *Deuteronomy* 29:2-3 (“Your eyes have seen all that the LORD did in Egypt to Pharaoh”); *Luke* 24:18 (“Are you only a visitor to Jerusalem and do not know the things that have happened there in these days?”); *John* 15:24-25 (quoting Jesus: “If I had not done among them what no one else did, they would not be guilty of sin. But now they have seen these miracles, and yet they have hated both me and my Father. But this is to fulfill what is written in their Law: ‘They hated me without reason.’”); *Acts* 26:26 (“The king is familiar with these things, and I can speak freely to him. I am convinced that none of this has escaped his notice, because it was not done in a corner.”).

391. Much Renaissance art, for example, is based on the Bible, such as Michelangelo’s painting on the ceiling of the Sistine Chapel and his sculpture of David.

392. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable). Religious statements in historical artifacts thus are not subject to falsifiability by hard science.

393. *See State v. Hicks*, 185 S.E.2d 746, 749 (S.C. 1971) (explaining that religious tests restricting competency of witnesses have been abolished, and that the fact certain testimony was uncorroborated went to its weight, not its admissibility).

394. *See supra* note 392 and accompanying text. The events recorded in Scripture cannot be disproved by empirical observation or naturalistic processes. Science is limited to naturalism.

but not necessarily untrue.³⁹⁵ There are myths, legends, and fables, but these are uncorroborated, often fantastic, and generally do not purport to recount actual historical events.³⁹⁶ There are also bones, fossils, and archaeological evidence. This evidence produces only inferences that cannot directly prove any theory of origins.³⁹⁷ Finally, there are the results of various scientific experiments that have been conducted on present-day objects, living beings, and other phenomena. The results of these experiments could conflict with the scriptural account, but only if certain naturalistic assumptions are made and the biblical account of miraculous creation is false.³⁹⁸ Thus, the evidence is inconclusive for purposes of government-funded education; science cannot disprove God or ancient miracles, but neither can these things be proven.³⁹⁹

Since science cannot prove the biblical record is not true, it is inappropriate for the government to exclude the historical accounts contained in the Bible solely because they are found in a religious document.⁴⁰⁰ While the law should treat each person equally, government should not be engaged in the business of affirmatively suppressing historical evidence simply because it tends to support the accuracy of a religious view.⁴⁰¹ It is people who are entitled to equality, not concepts.⁴⁰² It

395. *Id.*

396. See History World, History of Creation Stories, <http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ab83> (last visited Nov. 13, 2009) (listing examples of creation myths throughout the world).

397. PATTERSON, *supra* note 103, at 112 (noting that radiometric dating of rocks assumes the theory of “uniformity,” i.e., that the rate of decay of isotopes has been constant over time). Uniformity cannot be tested; rather, it is an inference evolutionists apply to the evidence derived from testing of rocks and fossils.

398. *See id.*

399. This does not necessarily mean that the evidence is inconclusive when viewed from the standpoint of each individual. In fact, the Bible teaches that a person can come to know God personally (1 *John* 4:7, 13-16) and that individuals are without excuse for failing to recognize God (*Romans* 1:18-20). But from the official standpoint of the civil government, the evidence must be viewed as inconclusive to preserve government neutrality, since government is not permitted to establish a religion. U.S. CONST. amend. I.

400. When government becomes involved in censoring historical evidence simply because it has religious connotations, the First Amendment is offended. See, e.g., *Perry Educ. Ass’n v. Perry Local Educators’ Ass’n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

401. See *Edwards v. Aguillard*, 482 U.S. 578, 608 (1987) (Powell, J., concurring) (explaining that the Establishment Clause only prohibits use of religious documents in public

is not for government to “handicap” the evidence to make all religious positions appear equally viable. Moreover, people need to know what the evidence is in order to make an informed decision. By the same token, it is not right for government to mandate the teaching of a contrived, unprovable account of history simply because it relies solely on non-religious evidence. This is propaganda, not education.⁴⁰³

Finally, it is not wrong for government to respect the evidence for God, even if it is prevented from taking an official position on the interpretation of the evidence.⁴⁰⁴ “God,” by definition, is a political title, among other things.⁴⁰⁵ If there truly is a God who is all-powerful, both private citizens and governments are subject to him.⁴⁰⁶ This idea does not come from the ravings of a religious fanatic; it comes from a well-authenticated historical record. The book of Genesis, which contains the creation account, also contains an account of God destroying several cities that refused to

education when the purpose of the use is to advance a particular religious belief); *Hines v. S.C. Dep’t of Corr.*, 148 F.3d 353, 357 (4th Cir. 1998) (holding that the Free Exercise Clause of the First Amendment “forbids state governments from adopting laws designed to suppress religious beliefs or practices”); *St. John’s United Church of Christ v. City of Chicago*, 502 F.3d 616, 633 (7th Cir. 2007) (explaining that even facially neutral law must be examined for “covert suppression of particular religious beliefs”).

402. See U.S. CONST. amends. V, XIV (guaranteeing due process and equal protection to “persons”).

403. *Edwards*, 482 U.S. at 627 (Scalia, J., dissenting) (noting that academic freedom protects students from indoctrination).

404. 1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND, *38-43 (opining that laws are given by God, the creator, and that human laws derive their authority from and must give way to divine law); JOSEPH STORY, A FAMILIAR EXPOSITION OF THE CONSTITUTION OF THE UNITED STATES 259-61, §§ 441-444 (Lawbook Exchange Ltd. 1986) (1865) (explaining that the framers of the Constitution held Christianity in high regard, felt that civilized society could not exist without it, and intended the First Amendment to limit government encouragement of Christianity only to the extent it became “incompatible with the private rights of conscience, and the freedom of religious worship”).

405. See *Daniel* 5:18-30 (in which God pronounces judgment on the Babylonian empire); *Matthew* 28:18 (“All authority in heaven and on earth has been given to Me.”).

406. THE DECLARATION OF INDEPENDENCE (U.S. 1776) (explaining that fundamental rights are given by God, and that the people have an equitable right to throw off the sovereign’s legal right to reign when the government violates these basic God-given rights). Note that the injunctions used by the court to prohibit evidence of the biblical record from being taught derive from ecclesiastical courts whose authority came from the principle that divine justice supersedes validly enacted human law when it becomes unjust. 1 BLACKSTONE, *supra* note 404, at *46-50 (stating that the attributes of God are the natural foundations of sovereignty); THEODORE F.T. PLUCKNETT, A CONCISE HISTORY OF THE COMMON LAW 685-86 (5th ed. 1956) (quoting Cardinal Morton as saying in 1489 that “every law should be in accordance with the law of God”).

acknowledge him.⁴⁰⁷ If this account is true, a government that refuses to recognize the evidence of God threatens the national security and economic well-being of its citizens. While government must protect the right of each person to draw his or her own conclusions about what the evidence means (because no historical view can be absolutely proven), government discriminates against religious people, and potentially brings disaster on itself and its subjects, when it takes an official position of rejecting and suppressing the evidence.⁴⁰⁸ Therefore, the biblical account of creation should be recognized as an historical account contradicting evolution if evolution is taught.⁴⁰⁹

VI. CONSTITUTIONAL ISSUES

As has been shown, proponents of evolution rely on a series of fallacies when presenting the argument that evolution should be taught to the public and other ideas should not. They assert that “evolution is a fact” while at the same time complaining that an unfair burden of proof is being put on them when confronted with gaps and problems with their theory.⁴¹⁰ They claim that evolution should be taught because it is science, despite the fact that evolution cannot meet the very test used to screen out creationism and intelligent design as being unscientific.⁴¹¹ They insinuate that the limitations they impose on themselves for purposes of experimentation limit reality and thus rule out every other possibility.⁴¹² They treat evolution as science when it is actually a form of revisionist history based on their preconceived philosophical and religious notions.⁴¹³ They reject eyewitness accounts by treating them as theories, rather than evidence.⁴¹⁴ They misrepresent the biblical record and attempt to disprove it with “straw man” arguments that would hold water only if reality and God Himself are forced to comply with limitations evolutionists admit they impose on

407. See *Genesis* 18-19, in which God reportedly rained fire and brimstone on Sodom and Gomorrah.

408. See U.S. CONST. amend I (protecting religious freedom).

409. *Edwards v. Aguillard*, 482 U.S. 578, 634 (1987) (Scalia, J., dissenting) (arguing that people are just as entitled to have the scientific evidence against evolution taught as they are to have the evidence for it presented).

410. See *supra* Part II.

411. See *supra* Part III.

412. See *supra* Part IV.

413. See *supra* Part V.

414. See *supra* Part V.C.1.b.

themselves.⁴¹⁵ They insist that those who disagree with them do so solely for religious motives, while blinding themselves to the fact that evolution can be proven as a theory only by screening out all evidence of the supernatural, which by definition includes God, and thus prove themselves guilty of anti-religious bias.⁴¹⁶

On the other hand, those who believe in biblical creation are relying on a well-authenticated historical record.⁴¹⁷ The biblical account is not demonstrably false. Science, by definition, cannot speak to the issue of whether the accounts of miraculous events in the biblical record are true. Moreover, government may not reject the historical evidence the biblical record provides simply because it is religious in nature.⁴¹⁸ The implication of rejecting all religious evidence of history is that all religious statements are false, yet no one has ever proved that all religious ideas are false. Government may not censor potentially true and accurate information simply to avoid entanglement with religion—in doing so, the government effectively establishes atheism as the state religion.⁴¹⁹ Moreover, it amounts to unconstitutional viewpoint discrimination to reject historical accounts of miraculous events.⁴²⁰ The question of whether the miracles could have occurred is a judgment on the merits of the issue, and government may not take sides in this way.

In spite of this, evolutionists argue that teaching anything other than evolution is unconstitutional.⁴²¹ In doing so, they rely on a Supreme Court case that interpreted what is known as the “Establishment Clause” in the Constitution. The First Amendment states that “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.”⁴²² At the present time, the Supreme Court has interpreted this constitutional provision to mean that federal or state government action must (1) have a secular purpose, (2) have a primary effect that neither

415. *Kitzmiller v. Dover Area School District*, 400 F. Supp. 2d 707, 735 (M.D. Pa. 2005) (holding that science is limited only to what can be naturalistically observed and tested).

416. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267, 1272 (E.D. Ark. 1982) (stating that “intelligent design” could not be effectively taught in public schools because teachers would be “required to constantly monitor materials to avoid using religious references”).

417. *See supra* Part V.C.1.b.ii.

418. *See supra* Part V.C.3.

419. *Edwards v. Aguillard*, 482 U.S. 578, 624 (1987) (Scalia, J., dissenting).

420. *See supra* Part V.C.2; *see also* *Rosenberger v. Rector and Visitors of Univ. of Va.*, 515 U.S. 819, 820 (1995) (holding viewpoint discrimination is unconstitutional).

421. *See* NSTA, *supra* note 78. The National Science Teachers Association argues that because creationism is religious, it would be unconstitutional to teach it in schools. *Id.*

422. U.S. CONST. amend. I.

advances nor inhibits religion, and (3) not foster an excessive government entanglement with religion.⁴²³ All of the recent creation versus evolution cases have been decided under this *Lemon* test.

A couple of criticisms of the *Lemon* analysis can be made. First of all, the “secular purpose” prong tends to unfairly prejudice religious adherents because it targets their motives while failing to require a court to make an “equal opportunity” examination of the motives of the opposing side.⁴²⁴ In both *McLean* and *Kitzmiller*, where, more than in other cases, the court attempted to address the merits of the creation/evolution controversy, the judges began with a cynical, biased discourse on the evils of “fundamentalism.”⁴²⁵ In both cases, there was no similar diatribe about anti-religious movements such as “secular progressivism” or “secular humanism.”⁴²⁶ Thus, the entire opinions are based on one-sided, negative personal attacks on one of the parties. There is usually more than one side to a controversy, particularly long-standing ones such as the creation/evolution debate.

The history of various religious, social, or philosophical movements is not a question of law for judges to decide.⁴²⁷ Nor is it a question of fact relevant to the legal issues before the court.⁴²⁸ Federal judges are not historians. It is not their place to opine on the merits of schools of thought.⁴²⁹ The sections of *McLean* and *Kitzmiller* providing historical background are mere dicta that serve only to expose the anti-religious bias of the judges.⁴³⁰

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

424. *Edwards*, 482 U.S. at 611 (Scalia, J., dissenting) (arguing that the Court finds the teaching of creationism unconstitutional merely because of the “motives” of creationism’s supporters).

425. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1258-60 (E.D. Ark. 1982); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 716 (M.D. Pa. 2005); *see also* *Epperson v. Arkansas*, 393 U.S. 97, 98 (1968) (opining that the statute at issue in the *Scopes* trial was “a product of the upsurge of ‘fundamentalist’ religious fervor of the twenties”).

426. *See supra* note 424.

427. *Jefferson Standard Life Ins. Co. v. Boddie*, 23 S.E.2d 817, 819 (S.C. 1942) (holding that the province of the trial judge is the determination of questions of law). History is not a question of law.

428. *Id.* (holding that the jury generally determines issues of fact in legal trials).

429. *Bartlett v. Strickland*, 129 S.Ct. 1231, 1245 (2009) (“Though courts are capable of making refined and exacting factual inquiries, they ‘are inherently ill-equipped’ to ‘make decisions based on highly political judgments’”) (quoting *Holder v. Hall*, 512 U.S. 874, 894 (1994)).

430. *See* 20 AM. JUR. 2D *Courts* § 36 (2008) (defining dicta and explaining that it lacks precedential value).

Moreover, the “secular purpose” prong of *Lemon* allows evolutionists to proffer a string of witnesses to testify as to religious statements made by those opposed to evolution.⁴³¹ Again, no attempt is made to review testimony as to the anti-religious bias of evolutionists. It is not uncommon to see militant anti-religious views expressed among evolutionists.⁴³² Impugning the motives of people who take a position on a controversial issue accomplishes nothing.⁴³³ Clearly, there is a religious component to the views on both sides of the issue. Allowing testimony regarding the purpose of only one side to a controversy tends to entangle government officials in the controversy, as seen in both *McLean* and *Kitzmilller*, thus violating the third prong of *Lemon*.⁴³⁴

The judges who have decided creation/evolution cases have also tended to neglect the portion of the second prong of *Lemon* that states that the primary effect of a law must not be to inhibit religion. This has been done by accepting the testimony of “experts” who testify that the theory of evolution is not antithetical to religious beliefs.⁴³⁵ In *Kitzmilller*, the judge actually found as a matter of law that evolution does not contradict religious beliefs.⁴³⁶ However, this is improper because religious views are personal. These so-called experts have no authority to speak for the general public about their religious beliefs. Moreover, it is not the place of judges to define what does and what does not conflict with religious beliefs.⁴³⁷

431. *Edwards v. Aguillard*, 482 U.S. 578, 636-40 (1987) (Scalia, J., dissenting) (arguing that the “secular purpose” prong of the *Lemon* test should be abandoned because the motives of some legislators may not be the reason a law was ultimately enacted).

432. *See, e.g.*, Blog: The State of Evolution—talk.origins, Google Groups, posting by Ye Old One to <http://groups.google.ki/group/talk.origins/msg/7f477cb87ab9e915> (Feb. 29, 2008) (last visited Nov. 13, 2009) (“Ban the christian faith, brothers, and all will be fine.”).

433. *Edwards*, 482 U.S. at 615 (Scalia, J., dissenting) (explaining that the Establishment Clause does not prohibit legislators from acting on their religious convictions and that this freedom has allowed them to, for example, feed the hungry and abolish slavery). Note also that evidence exists of partisan motives in those who support evolution. *See, e.g.*, Steve Kangas, The Long FAQ on Liberalism, <http://www.huppi.com/kangaroo/LiberalFAQ.htm#Backconsensus> (including numerous anti-Christian and pro-evolution articles in his website entitled “Liberalism Resurgent”).

434. *See supra* note 425. The judges in *McLean* and *Kitzmilller* took definite sides on the religious questions at stake in those cases, viewing religion negatively.

435. *Kitzmilller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 765 (M.D. Pa. 2005).

436. *Id.*

437. *Walters v. Stewart*, 838 So. 2d 1047, 1050 (Ala. Ct. Civ. App. 2002) (“The First Amendment prohibits a court from resolving disputes on the basis of religious practice or doctrine.”); *Epperson v. Arkansas*, 393 U.S. 97, 113 (1968) (Black, J., concurring) (“Unless this Court is prepared simply to write off as pure nonsense the views of those who consider

Additionally, the biblical record, as an archaeological document, speaks for itself.⁴³⁸ As discussed above, the biblical record states that a supreme being supernaturally created the universe at a time when no scientists were present to witness it.⁴³⁹ Therefore, by definition, teaching evolution without discussion of competing theories inhibits religion, since it presents a controversial viewpoint regarding religion and history, under the guise of “science,” that conflicts with the biblical record, when in fact science has not disproved the biblical record but simply dismissed it.⁴⁴⁰

Again, it is evolutionists who are demanding government sponsorship of their theory while attempting to silence and censor alternative viewpoints. Proponents of other views should not have to face the monumental burden of showing they have absolutely no religious purposes for what they do; as religious people, everything they do is religious to some extent.⁴⁴¹ Rather, proponents of evolution should have to prove that what is being proposed does not serve any purpose other than to advance religion.⁴⁴² Evolutionary scientists have no right to attempt to obscure the evidence provided by the

evolution an anti-religious doctrine, then this issue presents problems under the Establishment Clause far more troublesome than are discussed in the Court’s opinion.”).

438. Courts generally attempt to read documents according to their literal meaning if possible. *See, e.g.*, *Hitachi Electronic Devices (USA), Inc. v. Platinum Technologies, Inc.*, 621 S.E.2d 38, 40 (S.C. 2005) (holding that in construing a statute, courts should follow the plain meaning of the statute where possible). Wills are generally construed in a similar manner. *See also* *Bob Jones University v. Strandell*, 543 S.E.2d 251, 254 (S.C. Ct. App. 2001) (“In construing a will, a court’s first reference is always to the will’s language itself.”).

439. *Genesis* 1.

440. *See* National Science Teachers Association, NSTA Position Statement: The Teaching of Evolution, <http://www.nsta.org/about/positions/evolution.aspx>. The National Science Teachers Association position statement makes no effort to argue the merits of origins with creationism. It simply dismisses creationism as religious rather than scientific (“‘Creation science’ claims do not lead to new discoveries of scientific knowledge”) and urges science teachers to resist teaching creationism or other views intended to “weaken” evolution. *See id.*

441. *Edwards v. Aguillard*, 482 U.S. 578, 615 (1987) (Scalia, J., dissenting) (arguing that religious motivation should not deprive citizens of their right to participate in the political process).

442. *Id.* at 593-94 (majority opinion) (holding that use of religious documents in public education violate the Establishment Clause only when their primary purpose is to advance religion; *id.* at 614 (Scalia, J., dissenting) (pointing out that under Supreme Court precedent, a statute violates the Establishment Clause only if its sole purpose is to advance religion); *see also* *Bd. of Educ. v. Pico*, 457 U.S. 853, 866-67 (1982); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1272 (E.D. Ark. 1982) (explaining that since secondary effects which advance religion are not constitutionally fatal, religious information should only be banned if it has no scientific merit or educational value as science).

biblical record, because it is evidence of history, just like the bones and rocks on which they rely.

The criteria for censoring an historical artifact from public consideration should be that not only does it have a religious component, but it also has no value as anything other than a religious document. All of the opinions in the line of cases following *Lemon v. Kurtzman*⁴⁴³ have assumed that the sole value of the creation account is religious, and have failed to deal with the historical implications of the controversy.⁴⁴⁴ As shown above, the mere fact that an historical artifact contains religious statements does not mean it cannot be accurate. Since the account may be true, it has historical significance.⁴⁴⁵ The biblical record is thus “admissible” for educational purposes as evidence of history, even though it is not “admissible” for purposes of teaching religion. This is not a foreign concept to the law. For example, character evidence that is generally inadmissible to impugn the character of the party or witness may be admissible for other purposes.⁴⁴⁶ No basis exists for the conclusion that, simply because the biblical record is religious, any use of it in public education is by nature government sponsorship of religion.⁴⁴⁷

Under the *Lemon* “primary effect” test, if it is unconstitutional to teach creation because it promotes religion, it should also be unconstitutional to teach evolution to the exclusion of other views because the effect is to inhibit religion. If indeed life has evolved from one basic form into all its forms today, the biblical account must be incorrect, and its religious adherents must be wrong.⁴⁴⁸ Thus, government-sponsored teaching of evolution to the exclusion of other theories has a primary effect of inhibiting religion, because it cannot be proven to be true and it tends to

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

444. *Edwards*, 482 U.S. at 585 (finding that “no clear secular purpose” for the law at issue had been identified); *Epperson v. Arkansas*, 393 U.S. 97, 107, 109 (1968); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 716-23 (M.D. Pa. 2005); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1265-66 (E.D. Ark. 1982).

445. See *supra* Part V.C.1.b for a discussion of the evidentiary value of historical evidence in the origins debate.

446. FED. R. EVID. 404.

447. *Stone v. Graham*, 449 U.S. 39, 42 (1980). In this case prohibiting the posting of the Ten Commandments on school walls, the Court nonetheless expressly stated that “the Bible may constitutionally be used in an appropriate study of history, civilization, ethics, comparative religion, or the like.” *Id.*

448. Kirkpatrick, *supra* note 54, at 129-30 (noting that the theories of evolution and creation are mutually exclusive; at least one must be wrong).

destroy faith in the biblical account.⁴⁴⁹ If neither evolution nor creation can be empirically proved through hard science, and both either advance or inhibit religion, how can government legitimately be a partisan in the origins debate? What does science gain from speculative views of history that cannot meet the rigor of the scientific method, to the exclusion of other theories that also cannot be empirically proven? Therefore, the apparent primary purpose of allowing only evolution to be taught is to destroy faith.⁴⁵⁰

While it is true that some religious people, both lay and clergy, have stated that the theory of evolution does not hinder their faith, these individuals miss the point.⁴⁵¹ No individual has authority to define “faith” for anyone else. Moreover, the biblical record itself demands a faith that does not deny the truth as set forth in Scripture. Teaching evolution has a primary effect of inhibiting religion because it undermines the credibility of the biblical record, thus destroying faith.⁴⁵²

It is common to hear people use the term “faith” as if it were a mere badge of culture: “I am of the Christian faith,” or “I am of the Muslim faith.” When people say this, they are not speaking of the faith contemplated by the biblical record, but of “faith” in the sense of a culture or religious tradition. If this were all “faith” meant, there would be no point in opposing evolution, because cultures and traditions should not impede the progress of factual scientific learning.

However, it is not the limited definition of “faith” that certain individuals espouse, but the meaning assigned by the biblical record itself, that matters. The biblical record assigns a definition of “faith” within itself that was reportedly given by God, and it is this particular faith that Darwinism challenges.⁴⁵³ The Scriptures repeatedly demand belief and acceptance of the record as given by God and warn against turning from it.⁴⁵⁴ Moreover, the “faith” contemplated by the Scriptures demands action, not just mental

449. DARWIN ON TRIAL, *supra* note 79, at 132 (stating that Darwinists seek to teach, through public education, that science is “the only reliable source of knowledge, and the only power capable of bettering . . . the human condition”).

450. *Id.*; see also *supra* notes 431-32 (detailing evidence of ideological biases among anti-creationists).

451. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 765 (M.D. Pa. 2005); Robin Lloyd, God and Evolution Can Co-Exist, *Scientist Says*, *Live Science* (Nov. 18, 2008), <http://www.livescience.com/culture/081118-god-evolution.html> (last visited Nov. 13, 2009).

452. See Kirkpatrick, *supra* note 54, at 129-30 (noting that the theories of evolution and creation are mutually exclusive; at least one must be wrong).

453. *Id.*

454. *Deuteronomy* 4, 27-28; *Hebrews* 3:7-19.

assent.⁴⁵⁵ It is somewhat like the legal concept of detrimental reliance.⁴⁵⁶ At various times, God made promises upon which He intended individuals to act. There was no consideration (or incentive) given for these promises.⁴⁵⁷ In legal terms, this means that the human beings to whom God spoke did not do anything in return for God's promises in order to make them a binding contract. God's promises to these people were activated by "acceptance" through belief and actions in reliance.⁴⁵⁸

For example, God promised Abraham a son, despite the fact that he and his wife were both old and unable to have children.⁴⁵⁹ Abraham's belief (faith) was credited to him as righteousness.⁴⁶⁰ Abraham did not promise God anything in exchange for this. Abraham did not covenant with God—in fact, he was asleep when God made the promise.⁴⁶¹ But Abraham had to demonstrate his faith by taking actions in reliance, including showing willingness to sacrifice his son, in order to receive the promises given by God.⁴⁶² Also in Genesis, Noah exercised faith by building a huge boat to save himself and his family at a time when it had never yet rained.⁴⁶³ These individuals, and many others, were commended for their actions taken in faith.⁴⁶⁴

To some, this is a distinction without a difference. Is not the point merely that a person believes in God? The difference can be analogized to a person who "believes" in Santa Claus as opposed to a person who is willing to take U.S. currency in payment for a debt. Both are exercising "faith." However, the person who "believes" in Santa Claus has nothing riding on his or her belief. The "belief" is nothing more than idle speculation or intellectual

455. *James* 2:18-26.

456. *See* 17A AM. JUR. 2D *Contracts* § 109 (2008) ("[A] promise is binding if the promisee has suffered some detriment in reliance upon it."). There is some difference in that those who believe are not legally attempting to force God to keep His promise against His will, but the principle remains that according to the biblical record, God requires a demonstration of faith by actions similar to those that would prove detrimental reliance. In both cases, the actions in reliance show that the promisor was taken at his word, resulting in a change on the part of the person exercising faith in the promisor and his intention to keep that promise.

457. *See id.* at § 19 (explaining the requirements for a valid and binding contract).

458. *See id.* at § 109.

459. *Genesis* 15:4-5; 16:1-2; 17:17-19; 18:10.

460. *Genesis* 15:6; *Galatians* 3:6.

461. *Genesis* 17:10-21.

462. *See Genesis* 22; *Hebrews* 11:17-19; *see also Hebrews* 11:6 ("And without faith it is impossible to please God, because anyone who comes to him must believe that he exists and that he rewards those who earnestly seek him.").

463. *Genesis* 6:14.

464. *Hebrews* 11:7-12.

assent. A person who accepts U.S. currency in exchange for a debt is in a much different position. There is no intrinsic value to the paper itself. This person is acting in faith that the U.S. Government will back its currency in gold. If the U.S. Government fails to keep its promise, that person will have lost the value of that debt.⁴⁶⁵

So it is with faith as defined in the Scriptures. As set forth in the biblical record, “faith” involves a costly transaction with God that extends to a person’s very soul and everything he or she has.⁴⁶⁶ Since the Bible demands actions in reliance that would be foolhardy if the Bible is not true, government-sponsored teaching of evolution undermines faith by promoting a version of history inconsistent with the biblical account. The credibility of the biblical record is paramount, and this accounts for the intractable nature of the controversy.⁴⁶⁷

Faith requires action in reliance, but it cannot be based on falsehood. Suppose a person is asked to accept payment for a debt in Confederate currency. Although this currency may have some value as a collector’s item, it has no value as currency. A person who accepts Confederate currency in exchange for a debt is not exercising “faith” in the Confederate States of America. Even if one sincerely believes the Confederacy exists and that it will back its currency, she is sincerely wrong. Believing something not in accord with the facts is not faith—it is a mistake⁴⁶⁸ or a delusion.⁴⁶⁹ A delusion is neither meritorious nor religious, it is insanity.⁴⁷⁰

The difference between faith and a delusion can be determined by testing. Belief in Santa Claus could be tested by refraining from buying any

465. It is worth noting that in legal terms an insurance company that refuses to pay a valid claim is said to be acting in “bad faith.” *See, e.g., Gaskins v. Southern Farm Bureau Cas. Ins. Co.*, 541 S.E.2d 269, 272 (S.C. Ct. App. 2000). Essentially, it has broken its covenant with the insured, who was relying on the insurance company to pay the claim if the triggering event occurred.

466. *Matthew* 13:44-46; 19:16-30; *Hebrews* 6:4-6; *see also 1 Corinthians* 15:12-19 (stating that if Jesus Christ was not raised from the dead (a supernatural event and a confirmation of deity), then faith is futile and believers “are to be pitied more than all men”).

467. *See supra* Part V.C.1.a for a discussion of direct evidence, which is immediately established if the witness is credible.

468. 66 AM. JUR. 2D *Reformation of Instruments* § 11 (2009)

469. WEITEN, *supra* note 50, at 598 (“Delusions are false beliefs that are maintained even though they clearly are out of touch with reality.”).

470. *Id.* (explaining that disturbed, irrational thought processes such as delusions and hallucinations are “the central feature of schizophrenic disorders”); 79 AM. JUR. 2D *Wills* § 80 (2009) (wills can be invalidated if the declarant was under an “insane delusion,” which has been defined as a belief not founded on facts and which a rational person would not entertain).

Christmas gifts one year. Continuing to believe in Santa Claus after no gifts (or lumps of coal) materialized might be classified as self-delusion. Similarly, those who believe, no matter how sincerely, in things that can be disproved, such as the continuing existence of the Confederate States of America or a flat earth, are simply deluding themselves.⁴⁷¹

Thus, the defining quality of faith is not the sincerity of a person's belief. Rather, "faith" as contemplated by Scripture depends on two things: (1) the ability and dependability of the promisor in keeping promises, and (2) acceptance of the promise through belief in the promisor that is demonstrated by actions in reliance. The fact that some people say their faith does not depend on the accuracy of the biblical account is inconsequential. The fact is that the record itself claims authority from God and demands acceptance through belief manifested in actions in reliance, and that a substantial minority of the U.S. population believes this.⁴⁷² These people cannot accept evolution without denying their faith.

By teaching evolution, the government indoctrinates children with "facts" that are inconsistent with the account of creation in the biblical record. Life could not have been miraculously and instantaneously created to reproduce only after its kind, as expressed in the biblical record, and also have evolved gradually over billions of years from a single organism, as set forth in evolutionary theory. At least two facts are directly in conflict: (a) the amount of time involved, and perhaps more importantly, (b) reproduction after kinds as opposed to evolution from a single species.⁴⁷³ Moreover, the biblical record documents miraculous creation, whereas evolution is purely naturalistic in approach.

The fact that no one can scientifically prove either theory does not mean that there is no right answer as to what happened. These accounts are irreconcilably inconsistent—at least one of these historical accounts must be incorrect.⁴⁷⁴ The conflict is real, and it inhibits religion, because it creates the impression that the biblical account of creation has been

471. This is consistent with the principles on which the scientific method is based.

472. David Masci & Gregory A. Smith, *God Is Alive and Well in America*, PEW RES. CENTER PUBLICATIONS (Apr. 4, 2006) (noting that "more than one-third of Americans (36% in recent Pew polling) continue to believe that the Bible is the 'actual word of God' and is to be taken literally").

473. Kirkpatrick, *supra* note 54, at 129-30.

474. DARWIN ON TRIAL, *supra* note 79, at 153 ("[T]he leaders of science see themselves as locked in a desperate battle against religious fundamentalists, a label which they tend to apply broadly to anyone who believes in a Creator who plays an active role in worldly affairs.").

scientifically proven false.⁴⁷⁵ “Faith” in a debunked fable cannot be faith at all, but a lie or a delusion—a belief inconsistent with the facts.⁴⁷⁶ If evolution is true, then a believer’s faith is invalid, and he or she merely believes a lie or is insane.⁴⁷⁷ Intellectually honest persons must reconcile this conflict somehow.⁴⁷⁸ Moreover, the Bible demands belief in God and his promises, resulting in actions in reliance. If the Bible is false, right from its opening passage, then actions in reliance upon it are not acts of faith, but of mere stupidity, and promoting religion could even be characterized as fraudulent. Thus, government sponsorship of evolution is effectively an attack on religion.

However, people who believe the Bible are not operating under a delusion. Numerous people can testify that they have been changed at heart through faith and a resulting relationship with God, that God communicates with them and answers their prayers, and that they have seen biblical promises come true in their own lives.⁴⁷⁹ Moreover, one cannot study history without being struck by the tremendous influence the biblical record has exerted on humanity.⁴⁸⁰ These real actions and events do not come about by sincerity of belief, but by actual communications and transactions with God. The fact that not everyone experiences these things does not prove that testimony to their existence is false; indeed, others can see the changes in the lives of individuals due to their faith. In addition, evolutionary science cannot prove that its version of history is true.

As a result, government sponsorship of an official position in contradiction to the religious beliefs of those who accept the biblical account of creation violates the First Amendment unless government can

475. *Id.* at 152 (“[T]o Darwinists . . . the ‘fact of evolution’ is true by definition, and so negative information is uninteresting.”).

476. *See supra* notes 468-69.

477. *Id.*

478. LEE STROBEL, *THE CASE FOR A CREATOR* 34-35, 291-92 (2004). Strobel, a journalist, tells of his personal search for truth in the origins debate. He came to believe in creation and now urges others to search honestly for the answer.

479. Much of this testimony is through word of mouth. However, some examples can be found at <http://www.wordsoftestimony.com> (last visited Nov. 13, 2009).

480. *See, e.g.*, 1 EDWARD GIBBON, *THE DECLINE AND FALL OF THE ROMAN EMPIRE* 278-323 (Hans-Friedrich Mueller ed., 2003) (1776) (describing the increasing influence of Christianity in the Roman Empire beginning with the reign of Constantine); Austin Cline, *Bible’s Influence on History*, About.com (Jan. 23, 2005), <http://atheism.about.com/b/2005/01/23/bibles-influence-on-history.htm> (last visited Nov. 13, 2009) (admitting that “the practical impact and influence of the Bible in history cannot be denied”); FaithFacts.org, *The Impact of Christianity* (2008), <http://www.faithfacts.org/christ-and-the-culture/The-Impact-of-Christianity> (last visited Nov. 13, 2009).

prove that these beliefs are in fact not faith, but deception or a delusion.⁴⁸¹ It could do this by proving that evolution is true. If evolution is true, by definition there could be no supreme being who created the universe miraculously as set forth in the six-day account of creation in the biblical record. However, as discussed above, it is impossible to prove that the evolutionary theory of origins is true.⁴⁸² Thus, it is unconstitutional for the government to take a position that has a primary effect of inhibiting religion by espousing an official position sanctioning evolution.⁴⁸³

VII. CONCLUSION AND RECOMMENDATIONS

To summarize, the creation/evolution controversy continues, not because religious people are simply obstinate about their beliefs, but because it is not possible to prove absolutely an answer about origins. The question of origins is more about history than about science. There is scientific evidence, but there is also religious evidence, as to what happened in ancient history.⁴⁸⁴ Both types of evidence are relevant, and both types are potentially valid. Moreover, scientists who advocate evolution do not have personal knowledge as to what happened long ago. In fact, it is the biblical record that contains the only known statements available to us from history, by people who claimed to have any firsthand evidence on the question of origins. Since this testimony contains accounts of miraculous events and supernatural beings, scientists cannot counteract this direct evidence by merely extrapolating from circumstantial evidence currently available,

481. When government becomes involved in censoring historical evidence simply because it has religious connotations, the First Amendment is offended. *See, e.g.*, *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) (“Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of ‘free speech.’”); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

482. *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1267 (E.D. Ark. 1982) (holding that hard science: (1) is guided by natural law; (2) has to be explanatory by reference to natural law; (3) is testable against the empirical world; (4) has tentative conclusions, i.e., they are not necessarily the final word; and (5) is falsifiable). It is impossible to observe or empirically test the origins of life in the ancient past, whether that ancient past is billions or “only” thousands of years ago.

483. *See supra* note 480; *see also* *Lemon v. Kurtzman*, 403 U.S. 602, 612 (1971) (holding that the First Amendment prohibits a law whose “principal or primary effect” is either to advance or to *inhibit* religion).

484. *Genesis* 1-2.

based on the assumption that nothing miraculous or supernatural could have occurred.⁴⁸⁵

Thus, science is unable to make an authoritative determination, because it is unable to consider religious and historical evidence. Like land creatures, it must stand on the shore and ponder, just like everyone else, what little it knows about the ocean depths of the supernatural and the distant past.

The party at fault for creating the controversy is not religion—it is evolutionary science, since, beginning with Darwin, science stepped out of bounds by claiming it could prove something it in fact could not, and something that contradicted an existing historical record. If science is to limit itself by imposing naturalistic constraints on its conclusions, it has no business making grandiose claims about the origin of species or of the universe. There need not be any conflict between science and religion. Science, by definition, should confine itself to things that can be measured and tested.⁴⁸⁶ God, supernatural creation, and ancient history are all subjects that fall outside the scope of “science,” as defined by scientists. Thus, evolutionary scientists have no basis for demanding that the public be taught a view that, by their own definition, falls outside the realm of science,⁴⁸⁷ and that has significant philosophical and religious connotations.

Evolutionists who claim evolution is scientific fact are overlooking a fatal flaw in their chain of inferences. They make basic assumptions that could be true only if nothing supernatural occurred. But they fail to account for the pre-existing historical data that indicates that supernatural events did occur, which if true, prevents conclusions drawn from only scientific evidence from being fairly characterized as “factual.”⁴⁸⁸ Since evolution

485. See, e.g., *Hancock v. Mid-South Management Co., Inc.*, 673 S.E.2d 801, 802-03 (S.C. 2009) (holding that if even a small amount of evidence exists in support of a plaintiff’s case, a court may not throw the case out on a summary judgment motion). Likewise, even a small amount of contradictory evidence prevents a scientific theory from becoming established.

486. This is not to denigrate the tremendous advances scientists have made to the betterment of mankind. Scientific progress is to be encouraged and applauded. But the great accomplishments of science, such as medical breakthroughs and space travel, were not generally developed through soft science such as evolution. The purpose of this article is not to wage a war on science, but only to challenge the misapplication of scientific principles to reach unwarranted conclusions in extra-scientific fields of study.

487. *McLean*, 529 F. Supp. at 1267 (defining science as that which is explainable via natural law, while stating that the creation theory is not science because it depends on the supernatural).

488. See *supra* notes 257-60 and accompanying text (detailing historical and archaeological evidence for the Bible).

cannot be falsified, the basis of the controversy cannot be scientific in nature. The crux of the issue is whether a person believes the biblical account that states that God miraculously created the universe and all life. This is a religious issue, not a scientific one. Thus, it is unconstitutional for the government to take an official position on this question.⁴⁸⁹

However, saying the government can do nothing to resolve the controversy does not provide a solution. What is the best governmental response in this situation? Government should not be in the business of censorship.⁴⁹⁰ On the other hand, government should not be in the business of teaching religion.⁴⁹¹ The reason for the conundrum is the attempt to present to the public, not the hard evidence (i.e., provable scientific findings such as bones and fossils), but pre-digested conclusions about the evidence (i.e., the theory of macroevolution). It is not the actual scientific data that creates the conflict; it is the implications that have been drawn from the data where controversy arises.⁴⁹² To resolve the problem effectively, government should shift its focus from adopting a particular set of implications to protecting and policing the free access of the public to the hard evidence.

The answer may be to follow the example set by trials in every courtroom in America. National controversies are similar to interpersonal controversies with which courts deal every day, but are on a grander scale. Just as in a courtroom, the opposing sides present arguments to prove their case.

Since neither side can prove its position absolutely, a court should not decide the issue as a matter of law.⁴⁹³ In legal terms, the evidence with

489. When government becomes involved in censoring historical evidence simply because it has religious connotations, the First Amendment is offended. *See, e.g., Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 62 (1983) (Brennan, J., dissenting) ("Viewpoint discrimination is censorship in its purest form and government regulation that discriminates among viewpoints threatens the continued vitality of 'free speech.'"); *Epperson v. Arkansas*, 393 U.S. 97, 104 (1968) (holding that the government must take a neutral stance on religious issues).

490. *Bd. of Educ. v. Pico*, 457 U.S. 853, 866-67 (1982); *McLean*, 529 F. Supp. at 1272 (explaining that since secondary effects which advance religion are not constitutionally fatal, religious information should only be banned if it has no scientific merit or educational value as science).

491. *Edwards v. Aguillard*, 482 U.S. 578, 593-94 (1987).

492. Johnson, *supra* note 87, at 29 (noting that creationists and evolutionists each have the same hard scientific data to study). It is the inferences each side draws from the data that produce divergent conclusions.

493. *See* COUND, *supra* note 37, at 10-11 ("It should be noted that in ruling on a motion for summary judgment the judge does not decide which side is telling the truth.").

regard to origins presents a question of fact. In such cases, judges refuse to grant judgment from the bench, and the case proceeds to the jury.⁴⁹⁴ Each opposing side then presents its evidence and arguments to the jury. The jurors are asked to make up their minds and render a verdict.⁴⁹⁵

In a sense, the American people are that jury. Like jurors, each person must make up his or her own mind based on the available evidence. This is clearly the intent of the religious protections in the First Amendment. In a courtroom, both sides are allowed to put up their “experts.”⁴⁹⁶ If one side’s expert questions the credentials or conclusions of the expert on the other side, this does not automatically decide the case. The jury considers the testimony of the experts along with all the other witnesses.⁴⁹⁷ Likewise, evolutionists should not be allowed to insist that they alone are the all-knowing experts and that everyone else’s opinions do not count.⁴⁹⁸

No verdict is necessary with regard to the debate over origins, because freedom of religion is constitutionally protected—and rightfully so, since the evidence is inconclusive from the standpoint of science. However, like jurors, the American public has a right of access to the actual evidence that is available about origins without being deluged with propaganda in the form of pre-digested conclusions drawn by partisans of either side. Only when the evidence itself is fully and fairly presented will people be given their rightful opportunity to make up their own minds about the subject. It is one thing to have an honest discussion about the evidence. It is another for the discussion to be waylaid by unfair attacks such as “science versus religion” and “science has disproved God.”

Rather than taking an official position or adopting an official view of history, government’s role, like that of a judge, should be to protect the fairness of the information-gathering process and access to the evidence. Instead of commenting on the evidence, the government should act as a gatekeeper to prevent unsupported assertions and invalid scientific “facts”

494. *Collins v. Frasier*, 662 S.E.2d 464, 466 (S.C. Ct. App. 2008) (“Juries resolve questions of fact . . .”).

495. *OUND*, *supra* note 37, at 11-13.

496. *FED. R. EVID.* 702.

497. *See, e.g., Vortex Sports & Entm’t, Inc. v. Ware*, 662 S.E.2d 444, 450 (S.C. 2008) (“When expert testimony is based upon facts sufficient to form the basis for an opinion, the trier of fact determines its probative value.”).

498. *Id.* On this issue, courts have ruled that evolution, but not evidence of creation, may be taught in schools as a matter of law based on expert testimony. *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 743-46 (M.D. Pa. 2005). Under this principle, the expert testimony provided by evolutionary scientists should be made available for consideration along with, but not represented to be superior to, historical evidence regarding origins.

from reaching and confusing the public.⁴⁹⁹ While scientists must be allowed to debate among themselves the methods, findings, and implications of their research, scientific conclusions should be more carefully screened for accuracy before they are presented to the public.

Take, for example, the microevolution/macroevolution issue.⁵⁰⁰ At present, there appears to be no controversy surrounding the existence of “microevolution,” or minor changes in species over time. This is because microevolution is an observable phenomenon. Scientists of any persuasion can observe and document the same events. However, macroevolution, or Darwinian descent with modification from a single originating species, is controversial, because it is not observable. This sparks debate because scientists have continued to apply the scientific method to a subject (i.e., history) that is not amenable to the scientific method, and have reached results that contradict historical records in religious documents, because the scientific method ignores evidence of supernatural events, as it must. Scientists should have recognized that their profession is unable to provide a definitive answer to the issue of macroevolution.⁵⁰¹ Debate is healthy, but scientists have resorted to name-calling and have sought to ban evidence that contradicts their views by labeling the dispute as a controversy between science and religion.⁵⁰²

Thus far, the attempted resolutions have been through legislative and judicial channels.⁵⁰³ These methods have failed because they have attempted either to prohibit the teaching of evolution⁵⁰⁴ or to require the teaching of creation or intelligent design (or disclaimers), which in either case violates the Establishment Clause because it involves use of government to take sides in an apparently partisan debate.⁵⁰⁵ As long as the issue is framed as a debate between science and religion the result will be the same, because government cannot promote a particular religious viewpoint.⁵⁰⁶

499. See 75 AM. JUR. 2D *Trial* § 211 (2009) (explaining that a trial judge should not comment on the evidence in such a way as to sway a jury’s opinions as to the verdict).

500. See *supra* Part II.B.

501. See *supra* Part V.C.2.

502. See, e.g., Steve Kangas, *Myth: Scientific Consensus Is Not the Best Way To Discern Truth*, <http://www.huppi.com/kangaroo/L-consensus.htm> (last visited Nov. 13, 2009) (calling creation scientists and supply-side economists “cranks”).

503. See generally Kirkpatrick, *supra* note 54 (providing a history of the legal battles over the teaching of origins in public education).

504. *Id.* at 130-33.

505. *Id.* at 133-40.

506. *Edwards v. Aguillard*, 482 U.S. 578, 596-97 (1987).

But the legal battles do not reach the heart of the dispute, which is the overreaching of science into areas of soft science without full disclosure of the limits of its ability to provide answers regarding these subjects.⁵⁰⁷ This is partly due to the limitations of government and of legal recourse. In other words, is it the job of government (through legislation) to make determinations as to the quality or predictability of scientific theories? Would it benefit society to allow persons to sue scientists (through the judicial branch) upon allegations that a particular scientific conclusion exceeds the scope of the empirical research on which it is based? These are not political or legal questions; therefore, they cannot be resolved through political or legal channels.

Accordingly, the role of government should not be either to promote or to proscribe a particular viewpoint, since government lacks expertise in the fields of science, religion, and history, and also because it cannot endorse a particular position.⁵⁰⁸ However, precedent does exist for a governmental role in safeguarding the public. Judges protect the information-gathering and truth-seeking process in resolving disputes between litigants, not by taking sides with one of the parties, but by ensuring that due process is provided for both parties and that the law is followed.⁵⁰⁹ Similarly, executive agencies have been established for the protection of the public in a number of areas.⁵¹⁰

Courts can protect and have protected the public from overreaching by religious groups by enforcing the constitutional bar on government establishment of religion.⁵¹¹ However, no similar legal safeguard exists for the protection of the public from false or misleading scientific claims. Although ideally, government should refrain from involving itself in a

507. See *supra* notes 16-18 and accompanying text.

508. See *supra* note 71.

509. See *COUND, supra* note 37, at 1001 (explaining that the power of direction and superintendence is committed to judges in courts); 75 *AM. JUR. 2d Trials* § 207 (2009) (explaining that judges may control the presentation of evidence and may intervene to clarify evidence); 75A *AM. JUR. 2d Trials* § 596 (2009) (explaining that judges determine questions of law, such as whether due process has been followed).

510. See *JOHN H. REESE & RICHARD H. SEAMON, ADMINISTRATIVE LAW: PRINCIPLES AND PRACTICE* 7-10 (2003) (explaining the source and purpose of administrative agencies); see, e.g., *City of Columbia v. Bd. of Health and Env'tl. Control*, 355 S.E.2d 536, 538 (S.C. 1987) (explaining that the South Carolina Department of Health and Environmental Control is charged with the responsibility for protection of the health and welfare of the public by insuring that the waters of the state are pollution-free).

511. *Edwards v. Aguillard*, 482 U.S. 594 (1987) (holding unconstitutional a state statute requiring that creation science be taught alongside evolution in public school science classrooms). The Court held that the statute unconstitutionally imposed religious belief. *Id.*

dispute between professions, in this case the government has already injected itself into the dispute, both by declaring that creationist views are not science and by sponsoring evolution while discriminating against historic views of creation. Since the government has already become involved on the side of evolutionists by prohibiting historic creation accounts from being taught, it is appropriate to consider a method by which government could likewise protect students from unfounded scientific claims that impinge upon religious beliefs.

The government could create oversight through an agency that would be charged with the responsibility for protecting the public from false or misleading scientific claims.⁵¹² Its purpose would not be to attempt to resolve religious disputes or disputes between religion and other professions, but to ensure that an impartial body exists to provide standards and to adjudicate allegations either that the underlying science of a particular claim is invalid or that the empirical research does not fully support the scientific claim. The agency could bring scientists of differing persuasions together to attempt to address the question of what hard scientific evidence they can all agree on, without regard to the ideological implications.⁵¹³ The agency would not be given authority to determine the “party line.”⁵¹⁴ Instead, it would merely provide a means of screening the

512. The development of the legal framework for such an agency is beyond the scope of this work. The author does not necessarily endorse or promote the idea of such an agency. It is merely put forward as one possible solution to the current dilemma. The author is also aware that any governing body can become subject to the control of a particular group with a partisan agenda. But the development of a workable solution requires the advancement of ideas for consideration, and nothing can be accomplished by the assumption that any proposed solution is destined to fail.

513. Agencies have been created to protect the public from dangerous foods and drugs (i.e., The Food and Drug Administration), and from contamination of the environment (i.e., The Environmental Protection Agency), for example. See U.S. Food and Drug Administration, What We Do, <http://www.fda.gov/AboutFDA/WhatWeDo/default.htm> (last visited Nov. 13, 2009); United States Environmental Protection Agency, Our Mission and What We Do, <http://www.epa.gov/epahome/whatwedo.htm> (last visited Nov. 13, 2009). State agencies administer licensing requirements imposed by the legislature to protect against improper practices in various professions. See, e.g., S.C. CODE ANN. § 40-1-10 (engine statute for state professional licensing practice acts).

514. The *Kitzmiller* line of cases appears to take a partisan position with regard to the evidence of origins that may be presented to the public. However, the role of the courts is limited to questions of whether a particular statute or ordinance violates the Constitution as a matter of law. *Bartlett v. Strickland*, 129 S. Ct. 1231, 1245 (2009) (“Though courts are capable of making refined and exacting factual inquiries, they ‘are inherently ill-equipped’ to ‘make decisions based on highly political judgments’”) (quoting *Holder v. Hall*, 512 U.S. 874, 894 (1994)). They are not in a position to evaluate the quality of the underlying

verifiability of scientific claims before they are taught to the public.⁵¹⁵ If opponents of a particular view can show that part, or all, of a particular scientific theory is flawed, either because the underlying science is invalid, or because the proposed conclusion is not in line with the methodology utilized, the theory would be rejected or limited prior to presentation to the public.⁵¹⁶

This would create a system of “checks and balances” that has proven tried and true in the American system since the Constitutional Convention.⁵¹⁷ The success of speculation-based theories such as evolution indicates that the objective process of scientific inquiry is being sidetracked by ideological biases.⁵¹⁸ The flimsy “peer review” process has proved incapable of screening out junk science, leaving the public exposed to a bewildering array of scientific assertions with no avenue for determining which “scientific facts” are bona fide.⁵¹⁹ The public is constantly being

science. The role of a potential federal agency would be different: to screen out invalid scientific claims. It would not be empowered to weigh the evidence and endorse a particular view of the implications of the scientific evidence.

515. In other words, such an agency would be empowered to determine what specific experiments have been conducted, whether the methodology was proper, and whether the available evidence supports the claim advanced by the proponents. It could also catalogue the available data for easy access by the public and adjudicate claims by opposing parties as to the propriety of scientific claims through the adversarial method.

516. For example, with regard to the origins question, the agency would be empowered to evaluate issues such as whether the available scientific evidence supports the scientific claim of descent with modification through macroevolution. Another example is the question of what specific evidence supports claims of an ancient universe as opposed to a relatively recent origin. The average person has no ability to evaluate the evidence on this issue and is bewildered by the allegations of misconduct and improper science made by both sides. However, the agency’s authority would be limited to determining, following the first example, that although some evidence for macroevolution exists, it is not conclusive and that the public should be notified of the limitations of the theory if and when the theory of macroevolution is presented to the public. As to the second example, the agency could provide an official catalogue of the evidence that appears to indicate a relatively old universe and the evidence that supports a relatively young universe, and the agency could then present these hard facts without taking a position on the evidence.

517. This is because the agency would provide a forum for adjudicating disputes by allowing both parties to present their case.

518. The controversy surrounding the global warming theory is a similar example: The meteorological data is verifiable, but the implications of these findings are unprovable because they cannot be falsified.

519. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 744 (M.D. Pa. 2005). (relying on the lack of peer reviewed publication); Joan E. Sieber, *Quality and Value: How Can We Research Peer Review?*, NATURE, <http://www.nature.com/nature/peerreview/debate/op2.html> (last visited Nov. 13, 2009).

bombarded with scientific claims. The claims of science are not always accurate, particularly when scientists weigh in on controversial subjects.⁵²⁰ The question of origins is the poster child illustrating the need for some sort of oversight by an impartial third party over scientific claims. Had such a system been in place at the time, the “theories” of both Darwin and Freud would have been immediately recognized for what they actually are—philosophical extensions of scientific research that are not hard science and are not verifiable by science.⁵²¹

What the public really needs is a certification process for scientific findings. With regard to the origins debate, people need an impartial body to determine what hard evidence exists. People can make up their own minds about what the evidence means once they feel confident they have had the opportunity to review all the available evidence without pressure to adopt a particular view of it. The scientific evidence upon which all scientists (with the exception of those who take an unreasonable position in the face of overwhelming evidence, such as flat earth theorists) can agree should be presented to the public without comment on its implications to the viewpoint of any particular group. Of course, some explanation is necessary to make the findings understandable to the layperson. However, this can be done without taking an official position when there is controversy. Religious evidence should be included in this process, but should be identified as such when it is presented to the public.

This author has personally taught psychology classes in which this method was used. Freudian, behavioral, and various other views were all taught side-by-side in quick sketches with objective comments on the strengths and weaknesses of each view. This is not difficult, and is done regularly in classes in nearly every other subject.

In schools, there is no need to teach creation as a religion. Teachers can simply state that: (a) scientists rely on data from measuring and testing

520. Natasha Walter, *Face the Facts: Scientists Can Get Things Wrong*, CommonDreams.org (May 23, 2002), <http://www.commondreams.org/views02/0523-06.htm> (last visited Nov. 13, 2009). *Compare* NOAA Satellite and Information Service, *Global Warming: Frequently Asked Questions* (Aug. 20, 2008), <http://lwf.ncdc.noaa.gov/oa/climate/globalwarming.html> (last visited Nov. 13, 2009), *with* Paul Bedard, *Scientist: Carbon Dioxide Doesn't Cause Global Warming*, U.S. NEWS & WORLD REP., Oct. 7, 2009, <http://www.usnews.com/blogs/washington-whispers/2009/10/07/scientist-carbon-dioxide-doesnt-cause-global-warming.html> (last visited Nov. 13, 2009).

521. The author recognizes, of course, that no mechanism is free from bias by the people controlling it. Nevertheless, the provision of a forum for challenging entrenched scientific view and exposing their weaknesses to the public might serve to provide better clarity to the public.

only; (b) assuming that nothing supernatural has occurred, they have surmised that life and the universe could have been created through a “big bang” and Darwinian evolution; (c) however, scientists cannot prove this because there is some scientific evidence that appears to contradict these theories, as well as archaeological evidence in religious documents (corroborated to some extent by religious and non-religious historical documents) that states that God created the universe miraculously; and (d) neither the teacher nor the school can take an official position on the issue of origins, because it involves a religious question, and each person must make up his or her own mind. Teachers can outline the limitations of the scientific method as well as the potential biases in religious accounts without taking a partisan stance.

But if the general public is unwilling to go this far, and insists that religion not be mentioned at all in public education, then the government should not mandate that only evolution be taught. This raises the potential for misleading the public and “propagandizing” children.⁵²² If the religious implications cannot be discussed, the entire subject should be taken off the table by deleting the subject of origins from the curriculum, especially for young children. Although censorship is to be avoided, it is better than misleading people by teaching only one side of a controversial issue when the evidence is conflicted.⁵²³ Just as is done with other soft sciences such as psychology, older students who desire to learn about evolution should have the option to do so in electives. However, if these courses are offered, students should also have the option of taking classes that set forth the evidence for creation. In both cases, it should be stressed that science cannot provide a complete answer and that students should consult with their parents and religious leaders, as well as scientific and other sources, before deciding what to believe.

The issue of origins is crucial and unavoidable, because the danger of teaching only one side of the issue presents the possibility of generations of children growing up with stunted views of religion, of history, of others, and ultimately of themselves, while at the same time having an unrealistically naïve view of the findings of science.⁵²⁴ People who do not learn to deal with all the evidence and to come to terms with it for

522. *Edwards v. Aguillard*, 482 U.S. 594, 627-28 (1987) (Scalia, J., dissenting) (stating that students’ freedom from indoctrination should be constitutionally protected).

523. *Id.*

524. A recent Gallup poll indicates that educated people are more likely to believe evolution, indicating that education impacts religious beliefs about origins. FoxNews.com, Darwin’s Birthday Poll: Fewer Than 4 in 10 Believe in Evolution (Feb. 12, 2009), <http://www.foxnews.com/story/0,2933,491345,00.html> (last visited Nov. 13, 2009).

themselves are at a disadvantage when confronted with others who are familiar with the religious evidence. Thus, they tend to react emotionally, rather than objectively, because they feel their entire world view is being challenged.⁵²⁵

Many social issues in America today come down to a disagreement between those who come from a religious viewpoint and those who do not.⁵²⁶ By censoring the evidence of a supernatural creator that comes to us from history, schools create the illusion that religion is a mythological concept that has been debunked by science and no longer matters in the real world.⁵²⁷ In disagreements with those who accept the biblical record and thus adopt a vastly different viewpoint, those unfamiliar with it instinctively assume that religious people are simply trying to “impose their religious beliefs” on everyone else. In fact, the exact opposite is true. It is not the fault of those who believe the Bible that the historical evidence exists upon which they rely in forming their opinions. Believers should not be forced to become enablers of the secular-only world view, a view created by the limits imposed by unbelieving evolutionary scientists upon themselves.

Those who oppose religion have a right to attempt to disprove it. However, if they cannot do so, they should respect it. In any case, no one has the right to use the power and influence of government to misinform the public and obscure and deny valid evidence. Nor should anyone have the right to demand that people who believe the biblical record treat it as a mere fairy tale simply because others disagree with it.

The creation/evolution controversy is a divisive one. However, it is not the first controversy America has faced, and it will not be the last. America can, and should, resolve this question. However, resorting to censorship and religious discrimination under the guise of “keeping the peace” will only result in continued discord, which will be detrimental in the long run. The best solution is to take the “spin” out of the debate and let the evidence speak for itself. Let us hope that America will once again do the right thing.

525. *Edwards*, 482 U.S. at 634 (Scalia, J., dissenting) (expressing astonishment at the “instinctive reaction” of the Court’s majority, which appears to come from an “intellectual predisposition” against biblical creation).

526. For a list of hot button issues, see <http://www.procon.org>. A significant number of the listed issues are driven by religious views.

527. See *Edwards*, 482 U.S. at 624 (1987) (Scalia, J., dissenting).