

SCIENCE, RELIGION, AND THE MYTH OF CREATION

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It is quite clear that the 1925 trial of John Scopes did not settle the question of the relationship between an evolutionary theory based on natural science and a religious faith based on the authority of Christian scripture. What appeared at the time to be a significant victory for proponents of scientific evolution was temporary, at best. We can see, with Barton Childs and Faith Hickman, that

... far from promoting [the theory of evolution] in high-school curricula, the trial caused some publishers to run for cover. The word "evolution" disappeared from the index of many textbooks, and the idea itself was treated with elaborate circumspection in the text. It was not until the appearance of the Biological Sciences Curriculum Study textbooks in the early 1960s that evolution was given unabashed and forthright treatment in high-school biology.¹

Today this "unabashed and forthright treatment" is being vigorously challenged, with many textbooks showing the results by again failing to deal directly or extensively with evolutionary theory.

The debate between those advocating "creation-science," a theory of origins based on and consistent with the Genesis creation accounts, and those defending theories of evolution based on non-biblical interpretations, tells us much about both the power of "creation" as a religious symbol and the politics of religion, especially as these concerns arise within the domain of our public school systems. In the context of this debate, the school comes to be viewed less as a locus for information transmission and more as a moral battleground where truth and goodness engage falsehood and evil. The issue is not that of whether to teach science in the schools but to what extent a specific religious orientation should determine the character of that science education. Politically, the matter becomes a struggle to determine who will control our schools and their curriculums. No one—educator, pastor, scientist, parent, or student—is exempt from this debate.

I wish to emphasize the importance of distinguishing what is properly religious and what is properly scientific among the issues at stake. Specifically,

¹Barton Childs and Faith Hickman, "Human Genetics: One Approach to Scientific Literacy," *Daedalus* 112 (Spring 1983): 197.

myths of creation are religious expressions that must be understood and taught as such. Scientific theories, such as the evolutionary model, are based upon empirical analysis of nature and are not religious in nature, although they certainly influence religious understandings of the world. If we are to make any progress at all in resolving the dilemma posed by the creation-science versus evolution debate, it is crucial that we more fully define those factors that distinguish science from religion. (Having done this, we should be in a better position to evaluate elements that they have in common, but I will not address that issue here.) A final preliminary point to recognize is the fact that both sides in the debate presuppose the dominance of science as the superior explanatory model. This is an error that thoroughly muddies the waters and that must be overcome if we are properly to teach both science *and* religion in our public school classrooms.

Four issues are fundamental in considering the diverse views brought to bear on the contemporary debate over creation:

1. Creation myths still have force in our culture.
2. As noted, all parties in the debate assume the world view of modern science.
3. Our educational institutions serve as a battleground for moral supremacy.
4. Most of us are both scientific and religious illiterates.

I will consider each of these issues in turn.

THE CULTURAL IMPACT OF THE MYTH OF CREATION

Ian Barbour offers a helpful discussion of the general character of myth, noting that it serves to accentuate our humanity. As such, myth addresses the meaning of human existence in a way that science does not. "In broad terms, a myth is a *story which is taken to* manifest some aspect of the cosmic order . . . Unlike a fairy tale, a living myth is highly significant in impersonal and corporate life, it endorses particular ways of ordering experience and acting in daily life, . . ."²

Barbour reminds us that myths are ways of ordering experience by providing a basic sense of the structure of reality. Myths thus take into account the perennial problems confronting human beings.³ The Genesis creation account, for example, speaks of weakness, awareness of good and evil, sin, loss, the pain of separation, and the possibility of an ideal relationship with a transcendent deity. Myths of creation generally speak of the reality of pain and suffering, and the possibility of overcoming them. There is hope in remembering that which we have never literally been—anxiety-free individuals living

²Ian G. Barbour, *Myths, Models and Paradigms. A Comparative Study in Science and Religion* (New York: Harper and Row, 1974), p. 20.

³Ibid

within a perfectly harmonious society. Taken symbolically, the myth reveals the creation's mystery and humanity, the sense that life can have a meaning that transcends the very real human world in which it is set. It speaks of the morality of relationships, of the goodness of honesty and trust, of the evil of lying and deceit. Taken literally, as a set of propositions, the myth loses this mystery and this moral force. It is reduced to a set of mundane statements about and justifying what *is*—and nothing more.

Myths, then, are not the abstractions of science, or even those of theology and philosophy. Rather, they symbolize the personal encounter of individuals with the creation in which they participate. We recognize ourselves as meaningful participants in a universal human drama and symbolize that participation in the language of myth. Whatever the negative dimensions of that drama, myths express the sense that there is a "saving power" in existence, recognized, says Barbour, in relating the actual condition of humanity to an ideal state of being that "represents the source, ground, and goal of life."⁴ We are never allowed simply to remain as we are, there is always an awareness of what we are not. In various ways, observes Barbour, "myths . . . portray and convey a power to transform [human] life, rather than a theoretical explanation of it."⁵

Finally, myths provide patterns for human action, expressing in colorful and personal terms how our mythic ancestors behaved, and thus providing a model "for ritual, moral, and practical behavior."⁶ They "encourage particular forms of behavior and implicitly embody ideal goals and judgments of values. Myths form and sanction the moral norms of a society." As such, they are often reenacted in rituals associated with such events as the New Year, death and resurrection, and at critical "rites of passage" in an individual's life (e.g., birth, marriage, and death).⁷

Acknowledging the significance of myth as a fundamental means of symbolizing the human condition helps us better to understand why the issue of creation looms so large in the educational setting. However one assesses the validity of the creation-science position, it helps to recognize the role that myth plays in our national identity—to the extent that such an identity can be recognized. Donald Heinz is sensitive to this issue when he observes that the Christian Right in the United States "is engaged in the creation of a counter-mythology which contends against at least two mythologies—secular humanism and liberal Christianity."⁸ He characterizes secular humanism as rejecting supernatural conceptions of the universe while affirming "that ethical values are human and have no meaning independent of human experience."⁹ Liberal

⁴Ibid.

⁵Ibid., p. 21

⁶Ibid.

⁷Ibid.

⁸Donald Heinz, "The Struggle to Define America," in *The New Christian Right*, ed. Robert C. Liebman and Robert Wuthnow (New York: Aldine, 1983), p. 140.

⁹Ibid.

Christianity, in turn, is usually considered by the Christian Right to have acquiesced to this more humanistic interpretation of existence "Against that secular story," claims Heinz,

the New Christian Right is mounting its countermythology and attempting to regain access to the school as a primary agency of symbol production.

The fight to have creationism taught in public schools may be viewed in the same light. While that fight is being legitimated by an appeal to "scientific creationism," there is a more cogent argument to be made. Evolution, as the New Christian Right seems to intuit, is not simply a neutral methodology of modern science. It has become a key symbol of an alternative story—a story that includes human autonomy, the non-creation of the world, the rejection of transcendence, and the triumph of secularism. Since such a mythology has been erected upon a scientific methodology, the New Christian Right wants to use the Genesis account as a key symbol of an opposing mythology. Much of the current discussion fails to consider the power and significance of the major opposing symbols and the level at which this argument is being enjoined.¹⁰

The Christian Right, in other words, proposes a mythology to counter the one that it believes is expressed in the language and presuppositions of evolutionary theory. Viewed in this light, the issue becomes one of true science and true religion, as opposed to false science and false religion.

Henry Morris, a leading proponent of creation-science, puts the matter this way:

The theory of evolution has dominated our society, especially the schools, for almost a hundred years, and its influence is largely responsible for our present-day social, political, and moral problems . . . evolution is merely an unreasonable theory containing many scientific fallacies. Creation, on the other hand, is a scientific theory which *does* fit all the facts of true science, as well as God's revelation in the Holy scriptures.¹¹

Given this assumption that a true science is in accord with the Jewish and Christian scriptures, Morris and those who share his position cannot possibly advocate a balanced presentation of material pertaining to the two different understandings of creation, since they consider theirs a "true science" and evolution "merely an unreasonable theory." Rather, the creation-scientists assert that "true education" results from assuming the dogmatic, religious assertion that "creationism" is true and "evolutionism" false. Morris makes precisely this point in claiming that "the clear testimony of true science . . . supports the explicit testimony of Genesis that the world and all things therein came into existence by special creation, not by innate processes of development."¹²

Perhaps the most interesting aspect of Morris's position is the fact that he equates religion and science as opposing religious myths *while nonetheless assuming the superiority of the scientific model*. By presuming the dominance

¹⁰Ibid.

¹¹Henry M. Morris, *The Remarkable Birth of Planet Earth* (San Diego: Creation-Life Publishers, 1972), p. iv.

¹²Ibid., p. 71

of science, creation-scientists finally surrender their claims for the priority of religious truth by grounding their literal interpretation of the Genesis creation myth in the methods and categories of modern science. They argue that the proof of creationism can be sustained by what must logically be considered a superior model, that of the natural sciences. Having made this tacit assumption, they can proceed to claim that a true science is compatible with true religion, and that this true science in fact verifies the trust of their particular religious perspective. Logically, the argument is circular. The truth of the science is grounded in the truth of the religious vision, the truth of the religion is verified by the truth of the scientific claim. Of more importance is the fact that the Religious Right here surrenders fully to modernity by removing all vestiges of the poetic from mythic accounts of creation and by collapsing the grandeur of myth into the natural order delineated by the natural sciences.

THE PRIORITY OF THE NATURAL SCIENCES

"It is a commonplace," says theologian John Hick, "that the prevailing modes of thought in our contemporary Western world are naturalistic. That is to say, the categories of the sciences are today regarded as ultimate, rather than those of religion."¹³ Ironically, creation-scientists prove his point. Despite their avowed attempts to ground true education in a religious model, they consistently justify their beliefs by basing them in the presumed certainties of natural science rather than in the logic and mystery of faith.

Act 590, passed in 1981 by the Arkansas General Assembly and struck down by Judge William R. Overton in 1982, is a clear statement of this presumption of scientific superiority. The act aimed to "require balanced treatment of creation-science and evolution-science in public schools."¹⁴ Section two prohibits religious instruction, arguing that study "shall be limited to scientific evidence for each model and inferences from those scientific evidences, and must not include any religious instruction or references to religious writings."¹⁵ Creation-science is defined as "the scientific evidence for creation and inference from those evidences."¹⁶ These scientific evidences are said to support such views as that the earth was suddenly created from nothing, that mutation and natural selection are inadequate concepts, that human beings are not descended from apes, that there was a "worldwide flood," and that the earth is of relatively recent origin. Evolution-science, on the other hand, is characterized as those scientific evidences that support the evolutionary model, explaining the world's creation and development, including human life, as emerging by "naturalistic processes" that can be sufficiently explained

¹³John Hick, *Evil and the God of Love*, rev. ed. (New York: Harper and Row, 1978), p. 337

¹⁴*Creationism, Science, and the Law. The Arkansas Case*, ed. Marcel Chotkowski La Follette (Cambridge, Mass.: MIT Press, 1983), pp. 15-16

¹⁵Ibid.

¹⁶Ibid.

by "mutation and natural selection." It assumes a common ancestry for human beings and apes, and argues that the earth is several billion years old.¹⁷

In accepting the idea that natural science provides the primary model by which to interpret the world, creation-scientists misconstrue both science and religion by failing to recognize that at the heart of each is an awareness of openness and incompleteness. That is to say, given human finitude, no scientific theory is ever "final" in an ultimate sense, and no religious proposition can be stated with absolute certainty. To take a creation myth like that found in Genesis and reduce it to a set of scientific propositions is to miss completely the beauty and mystery of religious insight. It is to say that we are no more than material beings whose religions may be reduced to a set of finite propositions that are provable by scientific observation and experimentation. Conceived in this way, creation-science can only be understood as both bad science and misguided religion. And it is on the basis of such attitudes that creation-scientists carry their banner into the classroom.

PUBLIC SCHOOLS AS COMBAT ZONE

It is worth noting that contemporary creationists have advanced little beyond the position William Jennings Bryan took in 1926. Bryan argued that "Christians do not dispute the right of any teacher to be agnostic or atheistic, but Christians do deny the right of agnostics and atheists to use the public school as a forum for the teaching of their doctrines."¹⁸ He believed that teaching evolutionary theory would destroy the nation's values, asking if it is "fanatical to suggest that public taxes should not be employed for the purpose of undermining the nation's God?"¹⁹ Those who support Darwinism "weaken faith in God, discourage prayer, raise doubt as to a future life, reduce Christ to the stature of a man, and make the Bible a 'scrap of paper' As religion is the only basis of morals, it is time for Christians to protect religion from its most insidious enemy."²⁰ Finally, Bryan asserted that "if atheists want to teach atheism, why do they not build their own schools and employ their own teachers?"²¹ His solution was simple: refuse to teach evolutionary theory in the public schools in order to preserve the morality of America. Let proponents of both evolution and anti-evolutionary Christianity create private institutions to promote their respective views.

Contemporary creationists agree wholeheartedly with Bryan's position, with the significant exception that their efforts are also directed at getting creationist views introduced into public school curriculums. The underlying

¹⁷Ibid.

¹⁸William Jennings Bryan, "God and Evolution," in *Evolution and Religion: The Conflict Between Science and Theology in Modern America*, ed. Gail Kennedy (Boston: D C Heath and Co., 1957), pp 28–29.

¹⁹Ibid.

²⁰Ibid.

²¹Ibid.

assumption remains the same, that is, that the struggle is one of moral dimensions in which the trust of Christianity and the morality of America are intertwined. Practically, this issue reduces to the question of who shall control our school systems and determine the content of their instruction. The Reverend Greg Dixon claims that:

the New Right . . . want[s] the schools taken from the small cadre of elitists who are controlling the minds of our children through the standardized curriculum and turned back to the local school boards elected by the people, so that the schools will reflect the moral (not theological) standards of that local community.²²

In short, representatives of this so-called New Religious Right are not advocating a new theoretical position. Rather, they are simply proposing a new, conservative elite to replace what they perceive as the elitist liberal dominance of the public schools.

One final point must be emphasized in discussing this idea of the public school as moral battleground, namely, the political reality that educators respond to public pressure, especially in matters of religion. Legal defeats may have little long-term influence on the creationist position, since its adherents presume that theirs is the view that must prevail. Philip Kitcher makes this point quite clearly.

Even if Creationists continue to lose in the courts, they may still succeed in wreaking havoc upon science education (and, ultimately, upon American science). By lobbying local school administrators, the Creationist minions can affect the books that are chosen and the curriculum that is designed. Because textbooks are published to make a profit, the special-interest pressure will change the character of the books that are produced. While Creationist laws fail, the cause may triumph, as science education relapses into its post-Scopes, pre-Sputnik condition.²³

The problem is not simply legal, nor is it merely political. The difficulty is in dealing with individuals who hold that theirs is the only truth and that this truth must prevail if the nation is to survive. If we are even to begin to develop a solution to the difficulties posed by this challenge to our educational system, we must come to understand the creationist position on its own terms, as a mythic-moral perspective that honestly proposes the need to rethink and reform the United States. In order to achieve such an understanding, it is necessary that we better acquaint ourselves with the character of myth and with the nature of the world's diverse religions. Attaining this latter understanding requires educating ourselves as to the nature of those religions and the cultural context in which they have developed. The problem, I propose, is not simply scientific illiteracy, but religious illiteracy as well.

²²Rev. Greg Dixon, "The Deliberate Sabotage of Public Education by Liberal Elitists," *Phi Delta Kappan* 64 (October 1982) 97.

²³Philip Kitcher, *Abusing Science: The Case Against Creationism* (Cambridge, Mass.: MIT Press, 1982), p. 3.

ON UNDERSTANDING RELIGION IN AN AGE OF SCIENCE

It has become a commonplace to bemoan the inadequacies of contemporary science education. The entire Spring 1983 issue of the journal *Daedalus* was devoted to the question of scientific literacy. Stephen Graubard established the tone of the discussion in his observation that "to say that science is a mystery for great numbers—that it appears to be largely inaccessible even to men and women who believe themselves educated—and that this condition is scarcely improving, is now commonly accepted."²⁴ This ignorance is hazardous because "it impedes social and economic progress" and makes "certain individuals feel alienated and uncomfortable" in a world increasingly dominated by scientific and technological discoveries, models, and inventions.²⁵ And, Graubard assures us, "There is common agreement that the situation is not improving."²⁶

Michael Sovern, President of Columbia University, has observed that while "we pronounce a national scandal the inability of our young to recognize, much less write, a clear sentence, . . . we tolerate with remarkable equanimity a similar inability to know what it means to think scientifically."²⁷ Introductory courses in the sciences too often focus on the results of scientific inquiry, while giving the student no sense of the methods used by scientists to arrive at their conclusions. The result is that most students are never exposed to the actual nature of the scientific enterprise itself.

I take it for granted that critics like Graubard and Sovern are accurate in their assessment of the state of contemporary science education. Without a doubt, creation-scientists build upon this ignorance of basic science, presenting their religious beliefs as scientifically defensible to a culture that has no real sense of what it means for a position to be scientifically defensible.

There is more to the question, however, than improved language and science skills. While it is clear that most of us are relatively unaware of the nature and methods of scientific inquiry, it is equally the case that we lack a critical understanding of religion. Henry C. Johnson, Jr., Professor of Education at a major state university, observes that "the religious illiteracy of my students is simply abysmal; that of most of my colleagues is little better."²⁸ My own experience of teaching religious studies supports Johnson's contention. This lack of understanding of the nature of religion, coupled with an ignorance of science, is largely to blame for our current confusion. The result is that "science and religion face a common crisis, and they need each other."²⁹

²⁴Stephen Graubard, "Preface," *Daedalus* 112 (Spring 1983) v

²⁵Ibid

²⁶Ibid

²⁷Michael Sovern, quoted in *The New York Times*, 14 December 1982, C.4.

²⁸Henry C. Johnson, Jr., *The Public School and Moral Education* (New York: Pilgrim, 1980), p. 92.

²⁹Michael Novak, "Science, Religion, and the New Class," in *Free Inquiry* 2 (Summer 1982) 67

If we are to address this cultural crisis adequately, then not only must science education be enhanced, but we must also add to the student's education an awareness of the nature of religion, not only by way of confessional presentation of dogmatic truth-claims where this is deemed appropriate, but also through the critical study of religion in terms of culture, history, and comparison. Of course, this means, according to Johnson, that the Christian majority must be open to rival views, "allowing those in schools to be exposed to moral principles and patterns of reasoning which will be different from their own. . . ." ³⁰ This, adds Johnson, is an acceptable risk, provided that the classroom situation is "in fact open and critical." ³¹ The key, then, is that the world's religions must *all* be taught openly and critically, each presented on its own terms, if students are to benefit.

Teaching religion objectively requires instructors who are knowledgeable of the world's religions. It is no more sufficient to send an untutored teacher into the classroom to teach religion than it is acceptable to ask an untrained individual to teach physics. Objectivity is not achieved unless the instructor has undergone disciplined classroom study of the nature and function of the world's religions. If religious education is to be adequate, then those who teach it must be prepared to suspend their judgments, even about their own faiths, in order to offer the student as unbiased an exposure to each tradition as is possible. This does not preclude opening the classroom to representatives of different traditions; it does rule out allowing any one of these representatives to dominate the discussion. If we take freedom of religion seriously and if we assume religious pluralism to be a good thing, then we must face the implications of these beliefs within our educational system as well as in our courts. If we are to understand these implications, then we must understand the traditions that contribute to the pluralism

PLURALISM, RELIGION, AND SCIENCE

Americans have long interpreted themselves as being a nation under God—specifically, a Christian God. While such a belief has had the positive effect of symbolically uniting a diverse nation, it has had the negative effect of promoting the uncritical belief that we as a nation have somehow been "chosen" by this God and given a "manifest destiny" to save the world for democracy, capitalism, and Christianity. God is used to support everything from war to the free enterprise system. This unexamined assumption that the deity supports our political and economic systems easily becomes absolutized into the assumption that only a single, true variation of Christianity has the ear of that deity. In the educational realm, this attitude is reflected in the beliefs of creationists, for whom education must be true education, and true

³⁰Henry C. Johnson, Jr., *The Public School and Moral Education* (New York: Pilgrim, 1980), p. 90.

³¹*Ibid.*

education must be premised upon a literal interpretation of scripture in the context of a narrow understanding of Christianity.

To be sure, creation-science proponents succeed in part because of a widespread ignorance of science. I have argued that it is equally important to recognize that their success results from an equivalent ignorance of religion. Theologians are regularly called upon to testify in creation-science trials that the Genesis story is religion, not science. But they function in such cases simply as experts, there is no assumption that most people understand what is meant by such testimony. Robert Alley notes that this lack of understanding of religion makes Americans vulnerable to the manipulations of religious authority figures. "Most Americans," he says, "seem prepared to accept the Bible as some type of authority, but their general ignorance of its nature and content leaves them susceptible to manipulation by persons claiming a corner on the knowledge of both. . . . The result is an ignorant flock."³²

The predominance of Christianity, coupled with a lack of critical awareness of scripture in particular and religion in general, has a significant effect on how we debate the role of religion in our public schools. Rather than examining such theoretical issues as the adequacy of particular religious visions, the debate revolves around practical concerns such as prayer, meditation, holding religious meetings in classrooms, the legal status of creationism, and so on.

Perhaps the greatest difficulty with any discussion of teaching religion in public schools is that most of the parties involved misunderstand the purpose of talking *about* religion in an atmosphere of free inquiry. Most view it in political and practical terms, as a matter of partisan religious politics in which one tradition must finally win out over the others. If we are to move beyond such uncritical partisanship, then it is imperative that we promote the critical study of religion as an integral part of our curriculums in secondary schools. Courses should be designed to promote understanding of the role of religion in the development of the world's civilizations, to encourage critical study of scripture, and to illuminate the various beliefs found in the world's religions.

What cannot be allowed is the promotion of one tradition over another. No self-proclaimed elite, be it liberal or conservative, can arrogate the Truth unto itself. No simple majority can vote the Truth into office. Each tradition, and each variation thereof, must be taken on its own terms and examined in light of its specific ways of making sense of the cosmos.

Finally, whatever the truth of religious faith may be, it is not to be grounded in scientific evidence. The question of its relationship to that evidence is important, but religious faith must rest on evidence other than that

³²Robert S. Alley, "The Word of God. A Phrase Whose Time Has Passed," *Free Inquiry* 2 (Summer 1982). 5 For a useful discussion of Fundamentalism's use of biblical authorities, see Timothy P. Weber, "The Two-Edged Sword. The Fundamentalist Use of the Bible," in *The Bible in America. Essays in Cultural History*, ed. Nathan O. Hatch and Mark A. Noll (New York: Oxford University Press, 1982), pp. 101-120.

evinced through the methods of the natural sciences. Believers must assert their independence from scientific models without rejecting those models. The important question implicit in the debate between creation-science and evolutionary theory is whether we adequately prepare our students to cope with the modern world by enabling them to understand *both* the scientific and religious dimensions of existence. Creation science simply acquiesces to the scientific model while propounding a narrow religious stance. It urges a great leap backward on behalf of outdated and emotional interpretations of the Christian tradition. That creation-scientists are taken seriously is a reflection of the troubled state of education in our culture, and of our failure to educate ourselves properly in matters of science and religion.

We must realize that such truth as derives from critical inquiry, scientific or humanistic, is not democratic. Truth is not the result of political rallies and elections. Not all conclusions are equally valid. Gaining an accurate understanding of the world of human experience cannot be accomplished by committee, and it is most certainly not aided by substituting one vocal elite for another. Rather, "true education" is a matter of hard, disciplined inquiry by individuals open to correction—persons who acknowledge the possibility of error and who delight in the richness of diversity.

Such an education should create a greater sensitivity to the limitations of both science and religion than is now evidenced. It is erroneous to assume that science offers indubitable solutions to every problem, it is equally mistaken to assume that religion allows absolute certainty as to behavior and belief. To speak of certainty within the religious sphere is to speak of a faith that life has a meaning that transcends its material conditions, to assert that human beings comprise a fundamentally moral community that precludes the possibility of any self-proclaimed "moral majority," be it liberal or conservative. Any reasonable religious certainty acknowledges that uncertainty and doubt are at the heart of the human condition and cannot be rendered invisible by fiat. If we were absolutely certain as to the nature of everything, then there would be neither religion nor science, for neither would be necessary. It is only in our illiteracy that we can claim absolute certainty in either of these domains, and it is this illiteracy that we must overcome by encouraging free inquiry into the nature of the world's religious traditions and scientific truths.

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