This paper discusses the historical background of the creationist movement, presents Federal Judge Overton's analysis of why and how the Creationists got the equal time evolution/creation teaching law passed in Arkansas, and examines how scientists and educators are reacting to the controversy. Creationists were set back when Overton declared Arkansas' 1981 equal time law unconstitutional on January 5, 1982. Overton's decision called the Arkansas law a subterfuge for state-enforced public school teaching of religion. The passage of the legislation had been carefully orchestrated by Paul Ellwanger, a fundamentalist who developed "balanced treatment" model bills omitting religion or God so as to withstand constitutional challenge and used wording that appeals to Americans' sense of fair play in presenting both sides. Judge Overton traced the origin of fundamentalism as evangelical Protestant reaction to modernism and change. Fundamentalists disagree with Darwin's theory of evolution. They were upset by late 19th and early 20th century German Biblical criticism. In the 1920's they campaigned successfully against drinking (Prohibition) and introduced 37 anti-evolution teaching bills. Fundamentalists won in the Scopes trial. Not until the 1957 Soviet Sputnik frightened Americans to improve science teaching did the National Science Foundation finance new biology textbooks with evolution as a basic concept. This was one factor that stimulated the Creationists' recent activism. Late to respond, scientists and educators have organized committees of correspondence in 44 states to fight Creationists' national campaign aimed at having fundamentalists introduce a model equal time bill in most state legislatures and in the U.S. Congress. (Author/RM)
Behind the Evolution/Creation Controversy*

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Many Protestant fundamentalists have long said that the teaching of evolution in public schools has contributed to America's moral decline. In recent years a group of fundamentalists called creationists have campaigned for state-enforced Genesis-based creation to be taught whenever evolution is taught in public schools. The purpose, one gathers, is to restore religion and morality and thus help reverse rising crime, drug use, abortion, homosexuality, and other ills. They have introduced equal time evolution/creation bills in over 40 state legislatures, including West Virginia, and in the U.S. Congress. The Congressional bill would give research funds equal to those granted for science research involving evolution and would assure equal time when evolution lectures occur in national parks and museums. In this campaign, begun in the 1960s, creationists made striking gains during 1981, when Arkansas on March 19¹ and Louisiana on July 21² passed such laws.

Horrified opponents, late to organize, see creationists' goal—to reverse America's moral decline by reasserting orthodox religion—as at best naive; their circumvention of church-state separation as unconstitutional; their contrived concealment to reinstate religion in public schools as dangerous; their attacks on evolution and science for favoring a man-centered rather than a God-centered worldview as simplistic; and their misconstruing of science as deliberate weakening of our scientific future.

Opponents, led by the American Civil Liberties Union (ACLU), immediately challenged the constitutionality of the Arkansas and Louisiana laws. Following ACLU's challenge trial in Arkansas,

*Read February 9, 1982, in the West Virginia University Benedum/Centennial Lecture Series.
December 7-17, 1981, Federal Judge William R. Overton on January 5, 1982, declared the Arkansas law unconstitutional. Even before this decision, creationist leaders were critical of state Attorney General Steve Clark's defense of the Arkansas law. Clark early declined their help, perhaps wanting to avoid the sideshow that marked the 1925 Scopes trial in Dayton, Tennessee. Although many believe ACLU's defeat of Arkansas's equal time law will be repeated in Louisiana, creationist leaders are coordinating their efforts to win in Louisiana.

Judge Overton's 38-page opinion clearly exposed creationists' strategy and motives: that the cleverly worded equal time bill is a smokescreen for teaching religion in public schools; that creation "science" is not science but disguised religion; that creationists' stress on the "two-model approach" is meant to exploit Americans' fairmindedness; and that one intent of state-enforced Genesis-based creation teaching is to weaken the evolution content of science, seen as part of "secular Humanism" responsible for America's ills.

Judge Overton traced the origin of fundamentalism as evangelical Protestant reaction to modernism and change, especially reaction to Charles Darwin's Origin of Species, 1859, which offered evidence that all life evolved gradually over millions of years by natural selection as better adapted life forms survived and less well adapted ones died out.

Disliking Darwinian evolution for casting doubt on divine creation, American religionists were further upset by largely German late 19th century Bible scholars' evidence that the Bible was written by mortals at different times and places and included some myths and possible forgeries.
Most people accepted Darwinian evolution, science, higher Bible criticism, and secular life and government and still remained religious. Leading evangelical Protestants who believed in Christ's second coming, however, held annual Bible conferences to combat rising secularism. A famous 1895 Bible conference in Niagara, N.Y., issued a five-point affirmation of Christian doctrine, including Bible inerrancy and Christ's divinity, virgin birth, absolution for man's sins, resurrection, and second coming. This affirmation, distributed by the millions in a pamphlet series called *The Fundamentals*, 1910-1915, largely inspired the 1920s anti-liquor Prohibition and anti-evolution teaching. Widely read speeches by fundamentalist politician William Jennings Bryan (three-time Democratic candidate for the U.S. Presidency), helped introduce 37 anti-evolution bills in 20 states. Five states passed them, including Arkansas and Tennessee. Most legislators felt they had to vote for Tennessee's anti-evolution bill in March 1925 in order to be re-elected. The governor who signed it said, "Nobody believes that it is going to be an active statute." Friends in Dayton, Tennessee, decided that an ACLU test case in Dayton would put their town on the map. High school science teacher John Thomas Scopes, 24 and unmarried, agreed to be arrested and tried. Fundamentalist William Jennings Bryan, who led the state's prosecution, clashed with agnostic Chicago lawyer Clarence Darrow of the ACLU defense. Irritated by the judge's apparent bias, Darrow practically asked for a guilty verdict so that he could appeal to a higher court. Scopes was found guilty and fined. The $100 fine was later revoked on a technicality.
Fundamentalists won the Scopes trial and also won educationally. Publishers, authors, and teachers were frightened. Evolution was downplayed. The textbook Scopes had used, George William Hunter's Civic Biology, in its 1926 revision omitted all mention of evolution. A study of biology textbooks noted:

Self-censorship exercised by the New York-based publishing industry... shaped the content of high school biology courses for 35 years following the Scopes trial.... Publishers and authors feared that a good treatment of evolution meant the loss of the southern market—a fear which seems to have been justified. 7

This downplaying of evolution in biology textbooks lasted until the post-Sputnik curriculum revisions when the National Science Foundation financed the new biology (1958). By 1963 the Biological Sciences Curriculum Study (BSCS) had three biology textbook versions based on evolution in use in the nation's schools.

This BSCS reinstatement of evolution in biology textbooks provoked the rise of creationists and determined their current drive. Another factor was the 1968 Epperson v. Arkansas U.S. Supreme Court case. Arkansas in 1929, like Tennessee in 1925, passed an anti-evolution teaching law which remained in force until a legal challenge by Little biology teacher Susan Epperson led the U.S. Supreme Court in 1968 to declare Arkansas's 1929 law unconstitutional. Convinced that they could not legally dislodge evolution teaching, creationists chose equal time as a strategy they could win in view of Americans' sense of fair play. 8 The final spur was a partial equal-time victory in California under conservatives Governor Ronald Reagan and Superintendent of Instruction Max Rafferty.
In that favorable political climate, creationists had California's science teaching guidelines amended in 1969 to require equal time for teaching creation. But this decision was reversed under Democratic Governor Jerry Brown's (1974) less conservative state school board. Partial victory whetted creationists' appetites. To win California, which uses 10 percent of all U.S. textbooks, was to win the nation. A Science magazine author explained:

What is 'good' for California is likely to become 'good' for the rest of the nation... Unless publishers are prepared to produce special California editions—and they probably are not—the standard set for California will become the standard for many other states.\(^9\)

Creationists were also encouraged when fundamentalists largely won a 1974-75 campaign around Charleston, West Virginia, against alleged dirty textbooks.\(^{10}\) More encouragement came when Congress delayed NSF's 1975 funding because fundamentalists objected to an NSF-financed 6th grade social studies course, "Man: A Course of Study" (MACOS), which mentioned such Eskimo customs as Wife swapping, incest, cannibalism, and robbery.\(^{11}\)

Above all, creationists emerged, as have textbook watchers, the Heritage Foundation, the Moral Majority, and others of the fundamentalist right, in reaction to the troubles of our time. A writer on the West Virginia textbook controversy expressed it as follows:

The country is experiencing a religious crusade as fierce as any out of the Middle Ages... Our children are being sacrificed because of the fanatical zeal of our
fundamentalist brothers who claim to be hearing the voice of God. [People are confused and angry about everything from marijuana to Watergate. Feeling helpless and left out, they are looking for a scapegoat, eager to exorcise all that is evil and foul, cleanse or burn all that is strange and foreign.] In this religious war, spiced with overtones of race and class, the books are an accessible target.12

Substitute the word "evolution" for "the books" and one begins to see why the evolution/creation controversy rages. A barrage of rapid changes for the worse has put us off balance. One can understand why a conservative surge with simple religious answers to complex moral problems might have appeal.

These questions come to mind: Was there a conspiracy in Arkansas? Why was Arkansas chosen? How can Genesis-based creation be passed off as science today? Are sectional and demographic differences involved? Why are many Americans, if not attracted, at least tolerant of creationism? What do scientists say about equal time? Finally, what can public school educators do?

Judge Overton's analysis offers the following insight into the conspiracy theory. Fundamentalist Paul Ellwanger of Anderson, South Carolina, organized and heads two organizations: "Citizens for Fairness in Education" and "Citizens Against Federal Establishment of Evolutionary Dogma." He is by profession a respiratory therapist without training in law or science and an anti-evolution activist. Knowing that evolution cannot be barred from classrooms (1968 Epperson v. Arkansas Supreme Court decision), Ellwanger, helped by creationist lawyer Wendell E. Bird, developed "Balanced Treatment" model bills omitting religion or God so as to withstand constitutional challenge; and used wording that appeals to
Ellwanger insisted that non-ministers push the bill in order to avoid the taint of religion in the public mind. He urged supporters not to present the bill in a religious framework. He wrote a woman lobbyist for the bill not to mix "creation-science and creation-religion." 13

Ellwanger sent his model bill to, among others, fundamentalist minister, W.A. Blount, chairman of the Greater Little Rock Evangelical Fellowship. A minister member of the Fellowship gave the bill to Carl Hunt, business associate of Senator James L. Holsted, a "born again" fundamentalist, who introduced the bill into the Arkansas Senate. It was passed after a few minutes without debate or advice from educators or scientists or the attorney general. In the House, the bill was referred to the Education Committee for a 15-minute perfunctory hearing and was passed with little debate and no modification signed by a fundamentalist governor who owed his election to the Moral Majority and who later admitted that he had not read the bill. Judge Overton pointed out that all involved—Ellwanger, Blount, Hunt, Holsted, and the governor—were motivated by anti-evolution, pro-religious beliefs. A later investigator found such close connections among those who got the act passed as to suggest strongly a conservative conspiracy. 14

Arkansas was chosen, explained Little Rock's ACLU Executive Director Sandra Kurjiaka, because most legislators are from rural districts, are not overly "concerned about the constitutionality of laws they pass," and believe that a vote against creationism "would be a vote against God." Only Representative Mike Wilson, concerned...
about the bill, took the Arkansas Methodist bishop to the hearing but found that "they would not allow the bishop to speak against it."

Kurjiaka added:

It was amazing. I've never seen a piece of legislation go through that fast. It was very carefully orchestrated for the last days of the session, so that there would not be any opposition to it.... They succeeded in passing it without anyone watching. And now most members are very embarrassed that they voted yes for it.... I'm not sure there's anybody beyond 50 or so members of the Moral Majority in the entire state who want this thing. 15

That creation science is not science but a misnomer contrived to mislead was dealt with by Judge Overyton. Creationism as the sudden origin of the universe, energy, and life depends on supernatural intervention and is not testable, he wrote. Creationist belief in separate ancestry for man and ape is an assertion without scientific proof, he held. That the earth's geology and fossil remains were caused by a world flood in Noah's time, he wrote, has not been proved by natural evidence. The estimate of a 6,000-year-old earth is based, not on science, but on the genealogy of the Old Testament. Creation science, he concluded, is not science. 16

Why many Americans accept "creationism," as it was first called, and "creation science," as later named, remains something to ponder. One conjecture is that in times of stress people are gullible, and superstitions easily surface, as shown by widespread belief in UFO stories and astrology.

Regarding demographics, some observers sense a south-against-the-north factor in the creation/evolution battle and also a rural-versus-
urban element, as the Little Rock press and city sophisticates generally opposed while small-town and rural people mainly favored the creation law. Some also see a class struggle at work, as blue-collar worker and farmer/vent anger at outside Johnny-come-lately evolutionists who have moved into positions of local power.

How have scientists reacted? A retired biologist wrote about Arkansas:

As in the California Segraves trial, the creationists got what they wanted: publicity and a polarization of the populace. This issue will be won or lost not in the courts or in the legislatures but in the minds of ordinary folk. Our big job is one of education. (Also, politics). 17

As if agreeing, Senator James Holsted said of his defeated bill: "I think I had a victory because the idea and the spirit behind the law was to get people aware of creation science. That was my intention in the first place." 18

Wrote University of California (Riverside) biology Professor John A. Moore, "Creationism is religious dogma; evolution is scientific theory." "Thus, scientists should oppose the teaching of creationism as science, though no one should object to it or any creation myth being taught as part of the history of religion." 19

Moore opposed equal time because "scientific matters are not resolved by democratic procedures." He explained:

Democracy did not give us the laws of gravitation, the laws of thermodynamics, or Mendel's laws of inheritance. In a science class, creationism is not--indeed cannot be--a part of science because its statements are based on revelation, not a careful marshalling of data by observation and experimentation. 20
"Experience," he said, "has demonstrated clearly that there is no way to deal, in a scientific way, with determined creationists."

"This is a political debate; it is not a scientific one." When one views the creation-evolution battle as political, not scientific, he continued, one realizes the difficulty in dealing with it in our democracy, where few political questions are settled for all time.

Similarly, at a January 4, 1982, meeting of the American Association for the Advancement of Science, creationism was called a political movement which must be met with political action as well as scientific argument.

Of creationists' demand for equal time, David Black wrote, "They developed a new strategy, which appealed to [liberals'] sense of fair play: equal time. Biology teachers would be forced to divide time between creationism and evolution," thus weakening science while emphasizing the Bible. He called the creation movement "a slick, well-packaged campaign, run by fundamentalist who are trying to use conservatism as a trojan horse to smuggle the Bible back into public schools." They have chosen to fight evolution, he said, because to them it "denies the unique position of man as the child of God and thus threatens the central premise of their religion." What can educators do?

Except in private religious colleges, almost no science professor teaches Genesis-based creation. In public schools, because of constitutional separation of church and state, science teachers should resist any effort to introduce Genesis-based creation.

Public school educators can do these 3 things:

1. Have ready access to the legal directives, if any, guiding state and local school units in teaching about religion or other controversial topics.

2. Where no state or local directive exists or where wide local latitude is permitted, educators can try to be prepared by always
having an active "committee on teaching controversial topics." Such a committee can assemble and make available to concerned constituents a wide range of literature on all aspects of teaching controversial subjects.

3. The value of having such a committee with access to wide information is that they know where to get help legally (state attorney, ACLU, others), educationally (National Association of Biology Teachers, National Education Association, American Library Association, others), and scientifically (American Association for the Advancement of Science; others). They would know, for example, that 47 states have established voluntary, independent committees of correspondence, made up of concerned local scientists, educators, ministers, and others ready to help in evolution/creation crisis situations.

An optimistic view of the controversy is that more scientists, educators, clergymen, and citizens now oppose equal-time evolution/creation teaching; that creationists are a small part of the diverse conservative spectrum among whom serious divisions exist; that creationists and Moral Majoritarians cannot win in court, public opinion, or among old-line political conservatives on single issues such as prayer in public schools and equal-time evolution/creation teaching.

What course will prevail depends on our faith in time-honored constitutional safeguards, on recalling dangers that state-enforced morality pose to liberty and progress, and in believing that religion and ethics at home and in church are as desirable to assure freedom as are unfettered science and critical thought in public schools. In short, the outcome depends, as always, on the good sense of the American people.


15. Civil Liberties (ACLU), No. 338 (June, 1981), pp. 1, 5, 8.


17. Letter, David Kraus to Franklin Parker, January 6, 1982.


20. Ibid.

21. Ibid.
