In examining the literature on materials relating to the evolution-creationism controversy, it was found that there have been no comprehensive bibliographies compiled since the early 1980s. This paper presents an annotated bibliography on the creationism-evolution controversy including materials published or made available since 1980. (ASK)
Annotated Bibliography of Materials Relating to the Evolution-Creationism Controversy

by

Buzz Haughton
One of the most frequently recurring controversies in the fields of science and education over the past one hundred and fifty years has been the tug of war between those who in general accept the principles of evolution and natural selection laid down by naturalist Charles Darwin in his seminal work *The Origin of Species* and those who insist on the more or less literal truth of the creation account as given in the first couple of chapters of Genesis in the Judeo-Christian Bible. While the scientific establishment comes down squarely on the side of evolution, there has always been a minority of scientists adhering to the creationist interpretation. The creationist viewpoint is held by varying percentages of the general, nonscientifically trained public in industrialized countries, but it is probably safe to state that in no other First World country than the United States is so large a segment of the public opposed to the principles of evolution.

The controversy has intensified since the mid-1970s with the advent of scientific creationism, an adaptation of creationism that claims to base its claims not on scripture but rather deficiencies in the ability of the theory of evolution to explain various phenomena found in biology and geology. The creationist movement has managed to install itself in public education in several states as a valid competitor to the evolutionary viewpoint through law. Such legal victories on the part of creationists have provoked vigorous opposition from evolutionists, but the outcome has been somewhat checkered; while the Supreme Court has ruled against placing creationism on a par with evolution in two of its decisions, appellate courts have sometimes decided differently, and local custom and practice in many locales favor creationism in defiance of past Supreme Court rulings. The controversy shows no signs of abating and will likely continue into the twenty-first century.

I was struck in examining the literature on this dispute to discover that there have been no comprehensive bibliographies on it compiled since the early 1980s, thereby for the most part not picking up on the burgeoning of the creation science movement. I have therefore undertaken to compile as complete bibliography as I could on the creationism-evolution debate using well-known bibliographic databases. I arbitrarily imposed the limitation that only material published or made available since 1980 should be included in order to make the bibliography of workable size. I have also excluded foreign-language material and have largely confined the geographic scope to the United States, with a few citations relating to the same controversy as it is being played out in Australia and Canada. Although it will be obvious to the user that the bulk of the materials included espouses the evolutionist viewpoint, I have made every effort to include materials on both sides of this controversy. Many creationist writings are not indexed in the standard bibliographic sources available to me. About fifty percent of the citations included in this bibliography are annotated, including most of the citations for journal literature. Citations for editorials and book reviews in periodicals, as well as monographic books, are in general not annotated. Because of the sometimes ephemeral nature of sites on the World Wide Web, these sources have been
excluded, but a Web search using a good search engine should disclose a fair amount of materials for the interested reader.

I hope that this bibliography will prove of use to anyone interested in scanning the recent literature on the creationism-evolution controversy. I am solely responsible for any omissions or inaccuracies to be found herein. I would appreciate hearing from users about mistakes. Please send me your comments and corrections preferably by e-mail to hxhaughton@ucdavis.edu or by mail to:

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Shields Library
University of California
100 N West Quad
Davis, CA 95616-5292
An alphabetical list of 44 references (books and articles) on various aspects of creationism, the creationism-evolution controversy, and Darwinism is presented.


Presented in its entirety is Judge Overton's decision in favor of the plaintiffs (including the National Association of Biology Teachers) who sued the Arkansas Board of Education, et al., on the grounds that the Balanced Treatment for Creation-Science and Evolution-Science Act was unconstitutional.


Presented is the complete text of the judgment, injunction, and opinion of U.S. District Court Judge William R. Overton who enjoined the Arkansas Board of Education from implementing the Balanced Treatment for Creation-Science and Evolution-Science Act passed by the state legislature.


Creationists are trying to halt teaching of evolution (American survey; includes related article on creationists' beliefs).


Book review.


Christian Reformed Church teaching remains opposed to evolution-based theologies of creation. A recent synod was sharply divided over this and other questions of Biblical inerrancy.
Excerpt from telephone call from Jonathan Piel, editor of *Scientific American*, to Forrest M. Mims III, science writer and creationist.


The Jehovah's Witnesses' Watchtower Bible and Tract Society has often been accused of misrepresenting the ideas of authorities quoted in its textbook *Life: how did it get here? By evolution or by creation?* An example of this misrepresentation was quoting zoologist Richard Lewontin to have said that the orderly structure of organisms proves the existence of a Creator. Lewontin denied ever making such a categorical statement about creationism in the book writer's source. Other examples of erroneous attributions made by the publication's reporters are presented.


The school board in Vista, California, is considering the use of a creation science textbook as a supplementary source in science classes. The book, *Of pandas and people*, advocates the "theory of intelligent design." An official of the National Center for Science Education maintains the book is dishonest and unscientific. Control of the school board by Religious Right activists has caused controversy over creationism and school prayer although a survey of high school students found that most oppose religion in Vista schools. Cases involving religion in other public school districts are discussed.


A suburban San Diego school board is weighing a policy on science teaching that many fear would allow the teaching of religious tenets to counter scientific theories.


Creationists today tout "intelligent design theory" as an alternative to evolution. They contend that living organisms have features that are so perfect that they cannot be the result of the random workings of evolution but must be the product of conscious design. However, says Miller, a biologist at Brown University, scientists argue "that complex organisms not only could have evolved through evolution's trial-and-error mechanisms, but
must have done so.” And it is the errors that constitute the best evidence. Evolutionary theory can account for the “errors” and imperfections that are found in living organisms, whereas “intelligent design” theory cannot.


An article on Phillip Johnson, a leading creation scientist teaching at the University of California, Berkeley.


Editorial.


School boards under the control of the Religious Right are in danger of getting creationism as a controversial issue as the religious allies try to incorporate it into the school curriculum. According to a 1987 Supreme Court judgment, creationism is not science and it is necessary to be careful of the members of the Religious Right using another name for it. The involvement of clergy and scientists also helps in the opposition to the teaching of creationism.


An article outlining the advance of acceptance of creationist ideas as an appropriate competitor with evolutionary theory in American public school biology and other science courses.


1996 saw creationist legislation introduced (none of it passed) in five states. Religious conservatives are mounting a concerted attack on the presentation of evolution as scientific fact in secondary school textbooks.


The National Association of Biology Teachers believes that biology is founded on evolution, a scientific concept with tangible evidence, and so cannot be separated
from it. Creationism is part of a system of beliefs that have no scientific grounding and is untestable dogmatism which should never be approached in a scientific classroom. However, teaching evolution should not interfere with either the teachers' or students' beliefs which should be respected. The conflict between evolution and creationism in the classroom is founded on a misunderstanding of science and is legally unconstitutional.


Creationists are attacking the theory of evolution and influencing its elimination in science textbooks. State boards of education in Illinois, Texas and New Mexico are reconsidering the validity of the theory of evolution and how it is taught in state schools. Arizona is developing state guidelines that will eliminate all references to evolution or phrases such as common ancestry or descent with modification.


Editorial.


Book review.


Letter to the editor.


Book review.


The popular belief that creationism is a product of fundamentalist-literalist
Christianity is mistaken. There are biochemists and university professors in the anti-evolution movement. There is a spectrum of beliefs within creationism from literalists, who believe the universe is no more than 10,000 years old, to theists, who believe evolution occurred, but not by a random process.


Recent historiography of 19th century biology supports the revision of two traditional doctrines about the history of biology. First, the most important and widespread biological debate around the time of Darwin was not evolution versus creation, but biological functionalism versus structuralism. Second, the “idealist” and “typological” structuralist theories of the time were not particularly anti-evolutionary. Typological theories provided argumentation and evidence that was crucial to the refutation of Natural Theological creationism. The contrast between functionalist and structuralist approaches to biology continues today, and the historical misunderstanding of 19th century typological biology may be one of its effects. This historical case can shed light on current controversies regarding the relevance of developmental biology to evolution.


Editorial.


Book review.


The dispute over “creation science” in Michigan public schools is analyzed. The history of objections by fundamentalists to the theory of evolution is traced and related to the specifics of the Michigan case. Relatively homogeneous rural school districts tend to respond to local opinion and beliefs; even when faced with contradicting state and federal policies, they will often proceed according to local sanctions and wait for litigation. Elected leaders must respond by forcing the issue into the federal court system where a judiciary that is less susceptible to public pressure is more likely to render unbiased decisions.

Book review.


Book review.


Aspects of the theory of "scientific creationism" are defined and compared to accepted evolutionary theory. Implications of the accommodation of creationism in public school science curricula are then discussed. A history of state legislation mandating the inclusion of creationism as an alternative to the theory of evolution is reviewed, and the status (as of April 1981) of legislative action in 13 states is summarized, as provided by the Institute for Creation Research in El Cajon, California.

ED205381; available from ERIC.


Six books written in response to creationist arguments are reviewed. Indicates that the books should be of great utility in educating students in the sciences and in presenting the case for science, as separate from religion, to the uncommitted public.


An article about the activities of the Institute for Creation Research.

Reports recent proceedings regarding a new law enacted in early 1981 in Arkansas which requires schools that teach evolution to teach what the law calls "creation science." Opposition to the law by the American Civil Liberties Union is discussed.


There are significant numbers of scientists who conform to the creationist beliefs in the Bible. They are usually not in disciplines such as geology, evolutionary biology or astronomy, whose principles would conflict with their beliefs. Yet they publish papers in respected journals in their fields.


Debate continues about the role of religion in public school science classes. The U.S. Supreme Court ruled unanimously in 1966 that an Arkansas law preventing teaching of evolution was unconstitutional, and in 1987 that a Louisiana statute requiring teaching creationism violated the separation of church and state. Nevertheless, since 1996, at least six state legislatures have considered promoting creationism or banning the teaching of evolution.


Examines issues and events related to Liberty Baptist College's request to have the Virginia Board of Education approve its biology program for teacher training. Criteria used in evaluating the program and interpretations of various individuals
involved in the controversy are included.


Addresses how school systems in the 1980s and 1990s responded to two types of curriculum reform challenges that they perceived to be threatening: Afrocentrism and creation science. Despite finding the scholarly claims of both movements to be seriously flawed, educators were able to thoroughly invalidate only the creationist effort. Conversely, because of the more powerful resources available to the Afrocentric challengers (relative to creationists), educators were forced to incorporate parts of the Afrocentric agenda into their school systems, even if only symbolically. The resources that Afrocentrists had available to them were of two types: cultural and organizational. These advantages are analyzed using media, interview, and archival data, and, in light of social movements, framing and new institutionalist theory.

Contact author for a copy: Northwestern University, Evanston IL 60208; telephone: 640-326-4015; e-mail: abinder@nwu.edu.


An advocate of scientific creationism states arguments for its inclusion in the public school curriculum.


Book review.


Reviews the controversy of teaching evolution and creationism in public schools from the early years of the twentieth century until today. Identifies two stages of the legal challenges to the teaching of evolution. Contends that academic freedom issues may provide another avenue to the Supreme Court for those supporting
creationism.


Discusses the nature of the movement to include scientific creationism in the school curriculum and science textbooks, explains the extent of scientists' acceptance of evolution, and describes actions being taken to counteract creationist efforts in an organized and effective manner.


To assist teachers and others in dealing with the teaching of creationism versus evolution, this fact sheet provides a list of references found in the ERIC database.


The decision of the school board of Plano, Texas, to adopt Of pandas and people: the central question of biological origins as a textbook in science classes was opposed by members of the Keep Quality In Plano Schools. Due to this opposition, the board decided not to adopt the book. Jon Buell, who heads the book's publishing company, has decided to sell the book directly to biology teachers. The book describes creationism as intelligent design in an attempt to remove the religious aspects of the topic. Similar conflicts between religious organization and schools in other states are given.


Book review.


Book review.


Reviews events in the California courts surrounding a five-day trial concerning the teaching of biblical creation in the public schools.

Book review.


Deloria is criticized for proclaiming the scientific merits of creationism and his academic audience is called gratuitous for praising his work only because he is a Sioux Indian. Deloria counters that he must be winning because those opposing him offer no evidence or argument, but only personal attack.


Compares and contrasts the theories of creationism and evolution. Includes a National Science Teachers Association position statement on the inclusion of nonscience theories in science instruction.


Buckley in his regular column recounts the controversy over the teaching of creationism in public schools, expressing his sympathy with the partisans of creationism.


Letter to the editor.


Editorial.

Editorial.


The California Department of Education has withdrawn from the Institute for Creation Research Graduate School the right to grant degrees.


Despite the efforts of theological-scientific groups such as Cosmos and Creation and the CHARIS Ecumenical Center, some friction between creationists and physicists lingers. Some of the presentations at a 1993 University of Notre Dame conference are analyzed.


Questions a hypothesis from creation science dealing with mammals. Claims that, when tested, the hypothesis fails in two ways.


Article presented at the meeting of the Botanical Society of America and the Canadian Botanical Association/Association Botanique du Canada, Montréal, Québec, Canada, August 3-7, 1997.


Neither strictly non-rational nor deviant science, scientific creationism is a social movement of amateur philosophers of science seeking to influence science education through political rather than professional avenues. A sociology of knowledge approach, employing document analysis and fieldwork discloses its class basis; its specific religious orientation to rationality; and the ways in which it does, and does not, advance either rational or reasonable claims. Scientific creationists comprise those creationists, almost exclusively fundamentalist Protestant Christians, who are generally outside the South; technically educated; employed in
schools or large organizations (notably, as engineers and geologists); and who form social movement organizations to attack evolutionary biology on the basis of the "doubting Thomist variant" of the True Science tradition. True Science, a tradition of religious scholasticism holding that the Books of Nature and of Scripture yield the same Truth, has played a role in the history of science. Today it is degenerative; would render scientific research incoherent; and thus constitutes pseudoscience. Therefore scientific creationism is an instance of a religious social movement which is not strictly non-rational. However, the degenerative character of its rationality deprives its program of a reasonable claim upon public attention; policy and the conduct of scientific research.


A reexamination of classic sociological thinking about rationality and society from the perspective of recent thinking in the philosophy of science. It is suggested that "one-eyed social movements" such as scientific creationism, which take advantage of social rationality without being reasonable, cast doubt on the idea that society is inherently irrational, which is assumed, for example, in the classical theory of collective behavior. Indeed, the very category of collective behavior is called into question, as is the tendency to explain behavior included in that category as irrational or pathological. Research on the idea of moral economy and on social movements suggests an alternative view. The dimensions of the concept of rationality—in knowledge-based societies, at once a description and an evaluation—are explored, and rationality is contrasted with reasonableness, for which there are stronger requirements.


Letter to the editor.


A group of educators and students in Tennessee called the Tennessee Darwin Coalition are opposing attempts of creationists to pass laws that would require the teaching of creationism together with evolution in public schools.


Public school teachers are again being pressured to teach creationism as
proponents of "creation science" continue to emerge and take steps to have their views reintroduced into the curriculum.


Book review


Legislation, rulings, and arguments for and against public schools giving creationism equal time or consideration with evolution are discussed. In the 1920s fundamentalists began to promote statutes prohibiting the teaching of evolution in public schools. Since that time the creationists have sought to supplant evolution with creationism on the grounds that the teaching of evolution inhibits the free speech and religious practices of the believers of creationism. They have demanded that the study of evolution be reduced or eliminated because it is a religious theory and, in particular, a vital aspect of secular humanism, and, thereby, violates the first amendment. Nothing could be further from the truth. In fact, laws mandating the teaching of creationism violate constitutional rights. It is imperative for the sake of religious freedom in this country that the separation between church and state be maintained. As Supreme Court Justice William O. Douglas noted (Zorach v. Clausen, 343 U.S. 306, 314 1951), there are cases where the preferences of an individual or a majority cannot prevail.

ED241366; available from ERIC.


Science Citation Index is a service that lists the contents of over 3,000 of the most important science journals and proceedings. A computer search of the Index was
conducted using the terms “creationism,” “scientific creationism,” “special creation,” “biblical creation” as well as related terms. The file searched extended from January 1978 until October 1981 and contained approximately 2.2 million items. Only 18 relevant items were located, none of which provided scientific evidence or logic for creationist concepts. Results of a second search using names of leading scientific creationists revealed that only 6 of 28 included in the sample published any articles in SCISEARCH (the computerized listing of all Science Citation Index contents plus an additional 1,000 journals and proceedings from the scientific/technical fields), none of which dealt with the basic concepts espoused by scientific creationism. This indicates that the basic concepts included in scientific creationism curriculum materials are not supported by the factual information and research of the natural sciences. Although scientific creationists continue to claim that the concepts which underlie their proposed curriculum materials are well-grounded in scientific theory and research, the comprehensive computer search conducted indicates that there is no basis for their key concepts.

ED237367; available from ERIC.


A biologist, Dean H. Kenyon, at San Francisco State University was debarred from teaching biology ever since he taught students that life on earth was created by “an intelligent agent.” He was criticized by his colleagues for teaching creationism when he told his students in an introductory biology course for non-science majors about his theory. Kenyon believes that intervals in the theory of evolution can be explained only by his theory.


Letter to the editor.


Examines the proposition that creationism is legitimate science, including philosophical basis of that claim and methods used to discredit contemporary scientific thought. Discusses creationists’ arguments against scientific findings related to the second law of thermodynamics, the improbability of evolution,
Earth's age, geological record, fossil transitions, and descent patterns, and the argument of design.


Book review.


A review essay on a book by Michael Ruse, But is it science?: the philosophical question in the creation/evolution controversy (Buffalo, N.Y.: Prometheus Books, 1988). This new volume of essays on the scientific status of creation science (CS) and evolutionary theory is described as a "workbook" and purports to include various perspectives on the CS debate. It is contended that many important alternatives are neglected. Included in the essays is a discussion of McLean vs. Arkansas, which challenged state legislation that required public schools to give balanced presentations of CS and evolution science. Informed by the ideas of Karl Popper, the legal judgment held that the act was unconstitutional because CS could not stand under Popper's falsifiability criterion. Other essays criticize the court's decision, arguing that Popper's philosophy of science does not acknowledge that some science is unfalsifiable. Extending this line of reasoning, Stephen Jay Gould maintains that the strict neo-Darwinist synthesis of the mid-1950s has a built-in criticism-deflecting device. The book is criticized for confounding the distinctions between nineteenth-century creationism and late twentieth-century CS.


This review of selected creationism/evolution cases illustrates that neutrality
toward religion has not been achieved by the current understanding and application of the First Amendment. Nine cases are cited and discussed: (1) Wright v. Houston Independent School District (1970); (2) Williams v. Board of Education of the County of Kanawha (1975); (4) Daniel v. Waters (1975); (5) Crowley v. Smithsonian Institution (1978); (6) Segraves v. State (1981); (7) Dale v. Board of Education (1982); (8) McLean v. Arkansas (1982); and (9) Edwards v. Aguillard. The courts have accepted claims that only evolution has a scientific basis, and therefore other theories of creation cannot be scientific. Recent case law consistently reflects this bias.


ED300896; available from ERIC.


The creationist claim that eyes are extremely complex organs which could not have evolved naturally is baseless. Research conclusively shows that eyes have in fact evolved numerous times over mankind's history.


Creationism in twentieth century America: a ten-volume anthology of documents, 1903-1961 edited by Ronald L. Numbers (1995) is reviewed and analyzed. The transformation of antievolutionist thinking into scientific creationism is traced, with supporting documentation. The role of the Adventists and the writings of George Macready Price are seen as central in the collection, but the editor has underemphasized their significance. The question of the time lag between the publications on Charles Darwin's theory and the antievolutionism of the 1920s remains unanswered. It is concluded that the simplified view of creationism reflected in the collection shows how unquestioned assumptions an affect research.


The theory of divine intent or design can enhance scientific research. Manifestations exist that are unlikely to have developed only through random chance. The adoption of design opens up new lines of questions and discourse, and provides a set of empirical assumptions and constraints. These can guide the development of conceptual categories and methodological criticism.

The accumulation of scientific knowledge, in particular the discoveries of quantum mechanics, makes less necessary the positing of an Unmoved Mover. But belief in a Spirit animating the natural world need not necessarily be inconsistent with what we know about the physical universe.


Letter to the editor.


Discusses several topics central to the evolution/creationism dispute: (1) Darwin's ideas and influence; (2) rise of fundamentalism in America; (3) what fundamentalists think about evolution today; (4) effects of attacks on evolution in the public schools; (5) what creationism is; (6) creationist objections to evolution; and (7) court battles.


Describes the battle to include creationist theories in California science textbooks.


Letter to the editor.


The causes and symbolic aspects of acceptance and rejection of the theory of evolution provide a test of the major explanations of social conservatism: cultural milieu (or moral community) and socioeconomic marginality. Telephone interviews were conducted with 308 adult residents of the Tulsa, Oklahoma, area regarding evolution and other issues, together with respondents' characteristics. For fundamentalist Protestants, stance on evolution is related to degree of religiosity, but independent of income and education. For Catholics and nonfundamentalist Protestants, stance on evolution is independent of religiosity, but related to education and perhaps to income. Thus, the socioeconomic and cultural explanations are both correct, but only within specific and different communities.

Data from a 1986 telephone survey of 300 adults ages 18+ in the Tulsa, Oklahoma, metropolitan area are used to examine two approaches to understanding belief in creationism—long-term socialization and present community membership—and to analyze an array of socially conservative attitudes. Results support the long-term socialization approach, showing that belief in creationism is influenced by: size of childhood hometown; having had a mother who played a traditional homemaker role; and childhood denomination. It is also shown that among Christians who are not conservative Protestants, educational attainment has the strongest effect on scores on an index of creationist belief, but belief in the Bible has no effect; among conservative Protestants, however, education shows almost no effect. These findings are interpreted in terms of normative pressure on conservative Protestants to take literalist positions on the Bible and to view public education in hostile terms.


Discusses the relativist apologetic strategy and describes a scenario in which the strategy could be adopted to give creationism intellectual respectability, thereby having the potential to create a climate where evolutionist arguments for an educational monopoly would not necessarily ring true.


A critical examination of specific biblical narratives of creation that are sometimes used to construct a homophobic interpretation of the book of Genesis. "Creationist homophobia," which links Genesis 1-3 to Genesis 19 (i.e. the destruction of Sodom and Gomorrah), is traced with respect to its history and current applications. In 1978, the U.S. United Presbyterian Church prohibited the ordination of practicing homosexuals to the church's ministry, thus providing a pivotal role for homophobic interpretation of Genesis 1-3, and linking up with the exclusionist policies of the Roman Catholic and fundamentalist communions. Walter Brueggemann's sociological criticism (Genesis: a Bible commentary for teaching and preaching: interpretation, Atlanta, Ga.: John Knox, 1982) is critiqued. Creation sexuality is described, and expanded into an alternative literationist perspective.


Some contentions of scientific creationism that conflict with accepted principles of geology (catastrophism, fossil records, earth's age, rock formation, second law of thermodynamics) are reviewed, demonstrating that these claims are based not on scientific research or reasonable conjecture but on Biblical references.


Discusses the resurgence of creationism as part of the upsurge of neopopulism and the new conservatism, and its importance due to its political nature. Creationist arguments are outlined, some problems created by the confrontation between creationism and science are discussed, and this confrontation's effects on the science classroom are described.


Book review.


Prevalence and distribution of certain pseudoscientific beliefs held by college students about human origins and prehistory were studied at a large, southwestern public university. Creationist beliefs were associated with religious and social conservatism. Pseudoarchaeological beliefs were somewhat related to age and locus
of control, but not strongly related to other factors studied.


A report on the results of a national questionnaire survey of a random sample of high school biology and life science teachers (N = approximately 300) drawn from the National Register of Science Teachers. The questionnaire was designed to tap respondents' opinions regarding their belief in a wide variety of controversial scientific "facts," e.g. ancient astronauts, lost continents, and scientific creationism. In addition, methodological innovation was used to improve assessment of actual certitude of belief. Attention is given to the prevalence of pseudoscientific beliefs in the sample, whether these beliefs are presented in class and, if so, under what circumstances and for what reasons. The holding of particular beliefs and the willingness to teach them in class are so, under what circumstances & for what reasons. The holding of particular beliefs and the willingness to teach them in class are related to a variety of background variables, including demographic factors, educational training, and views of science in general.

Report available from the authors at the Department of Sociology, University of Texas, Arlington, TX 76019.


Examined is the extent to which teachers actually hold pseudoscientific beliefs. Described are the study design, sources of pseudoscientific belief, and correlates with various types of pseudoscientific beliefs. Results indicate that many high school biology and life science teachers endorse these beliefs. Implications of this study are discussed.


Scientific creationism should not be taught alongside evolution in public schools. The principles of scientific inquiry are opposed to the dogma of religious faith.

In 1997 a judge will decide whether a fundamentalist church elder has been misleading his followers in insisting that he has evidence for the existence of the Ark and the Biblical flood.


University of Melbourne geologist Ian Plimer claimed fundamentalist church elder Allen Roberts’ fundraising for a search for Noah’s Ark in Turkey constituted unfair trade practices. Former believer and marine-salvage expert David Fasold charged Roberts with unauthorized use of his drawings of the site. The suit could have repercussions for all pseudoscience claims.


Pope John Paul II formally announced that the theory of evolution does not contradict Roman Catholic dogma in his latest attempt to align the church with science. The statement was welcomed by the scientific and academic communities, but was downplayed by creationists. It was seen as a much-needed reassurance for the religious-minded that science and religion need not be divided over the issue of the origin of man.


The Public Broadcasting System’s “Firing Line” presented a two-hour debate on evolution and creationism on December 19, 1997, before the students of Seton Hall University in South Orange, N.J. The proposition to be debated was “Resolved: The Evolutionists Should Acknowledge Creation.” Those in favor of the resolution were William F. Buckley Jr., Phillip Johnson, Michael Behe and David Berlinski. The pro-evolution participants include Barry Lynn, Eugenie C. Scott, Michael Ruse and Kenneth Miller. The pro-evolution debaters were well-prepared and strongly defended their scientific views.

The attitude towards Christianity of 624 sixth form students in Kenya was measured using the Francis scale of attitude towards Christianity. Results suggest that attitude towards Christianity is influenced negatively by the view that scientific research results in absolute truth. There was no relationship between scientism and perception of creationism.


Presents results of a study of 16- to 18-year-olds measuring attitude toward Christianity and interest in science. Finds significant negative correlation between the two. Cites key factors explaining this negative relationship as the perception of Christianity as necessarily involving creationism and of science as attaining to absolute truth or scientism.


Addresses philosophical problems of the evolution/creationism debate (including underlying assumptions of creationism and nature of science), suggesting that creationism cannot be presented as science in science courses because it fails to qualify as a science. Prediction and explanation, absolute creationism, and a fundamental difficulty in “scientific” creationism are among the areas explored.


Reviews two landmark Supreme Court decisions of the twentieth century relating to the teaching of evolution in public schools: Epperson vs. Arkansas (1968) and Edwards vs. Aguillard (1987).


Book review.
Letter to the editor.


"This volume represents an account ... 'theological' witness for the American Civil Liberties Union (ACLU) at the 'creation' trial in Little Rock, Arkansas, December 7-9, 1981"—Preface.

Offers suggestions to secondary teachers faced with teaching the concepts of evolution to a group of skeptical students. Presents a variety of comments from groups that support the integration of evolution into the science curriculum and opposing the adoption of creationism as a part of the science curriculum.


Discusses various aspects of the current debate surrounding evolution and creationism including the debate between neocatastrophists and phyletic gradualists. Includes a brief history of the Creation Research Society and other groups formed by antievolutionists.


Reports that creationism has been specifically banned from the provincial curriculum as a legitimate scientific subject in all public schools and level one private schools in British Columbia.


Reviews results of a California trial concerning the teaching of evolution in public school classrooms. Also lists recent legislation in the states of Florida, California, Minnesota, South Dakota, Kansas, Illinois, Iowa, Texas and Arkansas.


Reviews the issues behind, and proceedings of, the Arkansas court case in which the constitutionality of a law requiring a balanced treatment of creation science and evolution science in public schools was challenged. Summarizes testimony of key witnesses for both sides.


This essay by a Harvard evolutionist presents viewpoints concerning the creationists’ arguments against evolutionary biology. Semantics regarding “facts” and “theory” of evolution are examined, examples are cited of creationist argument, and arguments for evolution are presented.


Discusses a 20-year period in British geology (1820-1840), focusing on a theory proposed by Reverend William Buckland in his “reliquiae diluvianae of Relics of the Flood.” Indicates that this flood theory, the centerpiece of modern creationism, was disproved by professional clergymen who were also geologists, scientists, and creationists.


Discusses various developments in both science and theology following the work of Charles Darwin on evolution. Differentiates between the facts regarding evolution and the theory of natural selection as a mechanism for evolutionary change. Warns that the differences between facts and theory have not been adequately emphasized
by scientists.


Gould reviews the attitudes toward geological evolution of two nineteenth-century British writers, W.E. Gladstone and Thomas H. Huxley, and how they their views related to those of Charles Darwin, their contemporary.


The author gives a precis of the life and writings of Henry Fairfield Osborn, a zoologist who lived until the '60s of this century, and some of his ideas relating to evolution and creationism.


Book review.


The relationship between humans and nonhuman animals is one of the most important motifs in mythology and a major concern of both human sociobiology and "scientific" creationism. It is suggested here that sociobiology and creationism function as ethnosociologies of U.S. society, and that neither can be completely understood until they are related to each other and to the key symbols of U.S. culture. Sociobiology and creationism are argued to be comments on the secular worldview of U.S. culture, and to exist as transformations of one another.


Book review.

The gradual decline of anthropocentrism from 50,000 BCE to the present is traced in relation to the controversy over the teaching of evolution and creationism. The discussion focuses on the battle over people's minds as waged in the public schools by fundamentalist religious groups and others.


Letter to the editor.


The Wisconsin Department of Public Instruction defused a potentially explosive situation involving the teaching of biological origins by involving members of the educational community in statewide committees that produced two documents focusing on the distinction between science and religion and providing technical assistance.


Letter to the editor.


Public attitudes toward creationism were investigated through a telephone survey of Florida residents (N = 1,086, aged 18+). Findings indicate that those who could be called “creationists” tended overwhelmingly to be of low socioeconomic status, nonwhite, female, and less formally educated; also, Protestants were more likely to be creationists, especially those of fundamentalist sects. No noticeable differences in political attitudes between creationists and noncreationists was found, although opinions vis-à-vis social policy issues varied, which is explained by degree of formal education. The educationally marginal were found to be somewhat more supportive of creationism. It is concluded that creationism is an issue of concern for citizens but is not central to political motivation.

A total of 407 undergraduate students at a public university in Texas answered a questionnaire using closed-ended, modified Likert scale items concerning pseudoscientific beliefs about the human past. A factor-analytic statistical procedure confirmed that the beliefs fall into two distinct domains: (1) creationism, involving more or less literal acceptance of the Bible’s account of human origins; and (2) cult archaeology, a set of sensationalistic claims including those about visits to earth by ancient astronauts and about the lost continent of Atlantis. Creationist beliefs were found to be significantly related to conservative religious and political ideologies, to lower grades and less frequent reading, and to indications of more dogmatic and authoritarian personalities. The etiology of cult archaeology beliefs is less clear, although older students were less likely to hold such beliefs. It is concluded that pseudoscientific beliefs have several different likely origins, and are not always susceptible to easy change. Implications for science education are discussed.


Letter to the editor.


Creation geologist Steven A. Austin claimed in his book Grand Canyon: monument to catastrophe that the Grand Canyon developed as a result of the Great Flood during Noah's time. However, Austin's evidence and assertions are questionable, primarily because he considered geological samples from a small region to support his Great Flood hypothesis. Moreover, he failed to consider that the Grand Canyon's different layers contained fossil samples of animals which died at relatively the same time. Other criticisms on Austin's hypothesis are presented.


Neo-creationists are promoting creationism as another theory to be taught alongside evolution in classrooms. Many creationists have geology degrees from prestigious universities but still adhere to the Biblical teaching that the earth is about 6,000 years old.


Supporters of creationism believe that the very symmetry of nature indicates that it could not be a random event, similar to the way an archaeologist determines an
arrowhead was human-created. This complexity is supported in studies of the DNA and the fossil world. Supporters of evolution ask for testable hypotheses and point to the poor designs in nature, such as a rabbit's digestive tract, to refute the idea of an intelligent design. There is also significant scientific data to support evolution.


Book review.


Ten leaflets published by the Melbourne Support Group of the Creation Science Foundation are reproduced and refuted by scientists and educators.


Editorial.


Discusses various legal and scientific issues related to the McLean v. Arkansas 590 (balanced treatment of creationism/evolution), including the nature of "creation science," responses from scientists and lawyers, focus of the plaintiff's case (anticreationism), nature of science, and one example illustrating the creationist tendency to use facts supporting their argument while ignoring others.


The creationism evolution controversy has become a problem of major concern in many states, especially Arkansas and Louisiana, and is the basis for dispute in many courts. Creationists, sensing the need for a modern approach, have now become less concerned with the theological rationale for their argument and have turned to the scientific field as a base for their claims. Creationism starts with a fixed position, a conclusion, which is in direct contrast with that of pure science which holds to nothing until facts are generated which point toward an assumption, then an experimentally-based theory, and in some cases, finally, a law. For the true religious fundamentalist, the Bible is the literal word of God and within its pages are the answers and solutions to life's problems and perplexities. When the Bible says in clear language that God created the world in six days and then rested on the seventh, man, say the creationists, should believe that precisely as it is written. This position held by creationists is contrasted to the position
promulgated by modern scientists. Several reactions to the controversy are discussed.

ED222380; position paper available from ERIC.


Letter to the editor.


Book review.


“Inherit the Wind,” which as both play and motion picture depicts the famed Scopes trial on evolution vs. creationism held in Dayton, Tennessee in 1925, is an oversimplified distortion of the details surrounding the trial, its principals and the issues involved. The star prosecutor, William Jennings Bryan, suffers especially from these fabrications. Bryan was not some crude fundamentalist, but a profoundly religious, deeply perceptive, political progressive. He saw evolutionary theory as dangerous to society because it legitimizes economic and social exploitation while discouraging social reform.


Commentary on the Supreme Court’s decision in Edwards vs Aguillard regarding the legality of teaching creationism as another scientific theory alongside evolution in Louisiana high schools.


A survey of 290 Catholic college students was conducted to determine the effects of science curricula on attitudes toward the theory of evolution. A recursive path analysis shows that, while biology majors are somewhat more knowledgeable about evolution than other students, academic major is not significantly associated with belief in evolution or support for “equal time” measures designed to teach creationism as an alternative to evolution in schools. Belief in evolution has a moderate relationship with subjective biblical literalism and self-identified religiosity.

Available from the authors at Illinois Benedictine College, Lisle, IL 60532.


Letter to the editor.


Darwin's supposedly scientific theory of chance mutation and natural selection is not empirical science, it is an atheistic myth for the secular scientific community. The central issue of creationism's fight to coexist in academia should be God's role in creation, not Biblical literalism.


Professor Richard Lewontin's theory of scientific materialism, based on the evolutionary theories developed by Charles Darwin, contrast with those of his Harvard colleague Stephen Jay Gould. Lewontin subscribes to scientific materialism that explains everything in the world, including thought and will, and attributes it to matter. Gould feels evidence must determine the facts without the initial influence of a materialist philosophy, which was Darwin's failure.


Editorial.


Letter to the editor.


The third triennial C.S. Lewis Summer Institute attracted 400 theologians, astronomers, physicists, and philosophers to debate "Cosmos and Creation: Chance or Dance?" They agreed that science and religion converge in cosmology in
a variety of lively discussions.


Discusses: (1) the theology of creation (religion); (2) evolution (science); and (3) scientific creationism (religious doctrine and pseudoscience). Points out that contrary to its claim, the latter is a sectarian religious doctrine in the guise of science demanding to be taught in the classroom "as a science."


Biology teachers are usually treated to students who support a creation rather than evolutionary theory but the problem also arises in physics courses when considering astronomical evolution. One teacher's students presented a list of questions from creation literature that contradicted the evolutionary timescale. These questions and answers are provided, but the teacher warns that the answers only resolve the questions for students who are willing to learn and do not dismiss rational thought automatically.


Letter to the editor.


Presented in this book is the case against creationist pseudoscience. One theme emphasized throughout the book, written for those with or without science backgrounds, is that although the creationist campaign is an assault on evolutionary theory, it constitutes an attack on all sciences. Chapter 1 provides a brief introduction to evolutionary theory. Chapters 2-4 constitute a defense of evolutionary theory against creationist objections. Global objections are addressed and discussed in chapter 2. Chapter 3 considers more specific creationist complaints about the methods of evolutionary biology. These are based on
misunderstandings of scientific methodology or evolutionary theory, or both. Chapter 4 considers the "scientific facts" that are supposed to refute evolution. Chapter 5 offers a critical evaluation of creation "science," examining creationist doctrine and whether the doctrine can be used to solve scientific problems. In this context, the significance of recent debates within evolutionary theory and creationist proposals for revising the geologic time table are discussed. Chapter 6 focuses on educational questions, including what genuine intellectual tolerance is required of individuals and tactics creationists use in exploiting tolerance. Chapter 7 examines the charge that evolutionary theory is intolerable because it is inimical to religion and morality.


Creationism and its attack on science in the curriculum are examined from the perspective of several contemporary theories of science, democratic rights are considered, and the social source of fundamentalism is examined. Creationism is seen as an attempt to restore unity to science.


An analysis of the discourse of creationism in Queensland, Australia, focusing on its social-historical context. The concept of "creation science" is treated as an ideological articulation of religious fundamentalism, social conservatism, and the New Right; its effective consequence is the support of existing relations of power, inequality, and domination during the present transition to a postindustrial society. A 1986 questionnaire survey of 700 randomly selected Australians identified a creationist-fundamentalist subset of 109 respondents who were significantly more conservative than other Rs on religious beliefs, lifestyle issues, concerns for social stability and cohesion, an Anglo-dependent national identity, and the economic program of the New Right. The long-term success of the fundamentalist-creationist agenda is considered; it is concluded that the current debate over creation science indicates the inadequacy of science for giving meaning and significance to contemporary existence or for unifying a fragmented, secularized society.


Attacks on the teaching of evolution and arguments for the presentation of "creationism" as an alternative theory of origins, in school science in Queensland, Australia, are typically grounded in religious beliefs and lifestyle prescriptions. These beliefs and prescriptions reflect a particular articulation of attitudes (religious and social fundamentalism) that has tended to support certain political and economic agendas in Queensland, in particular, social conservatism or the "New Right." These fundamental assumptions implicit or explicit in the case for "creationism," and the social sources of these assumptions, are addressed.

Reports on techniques used by creationists to argue against evolution. They include intensifying or downplaying messages, omitting information, associating creationists beliefs with other beliefs, quoting out of context, and others. Also suggests that learning to read critically will help students evaluate creationists' rhetoric.


Most Americans, including religious conservatives, believe in evolution. However, they reject the suggestion that God has not intervened in the creation process. This stance has led to the resurgence of debates concerning creation and evolutionary theories. An analysis of creationist logic points to its proponents' anxiety over the possibility that natural selection would adequately explain the origin of humans, and do away with the belief in God altogether. It is this prospect that religious people find completely unacceptable, thus, spurring them to dismantle naturalism.


Letter to the editor.


Book review.


The concepts in human evolution against creationism are discussed in the context
of the experiences of a biologist-parent in the birth and development of his child. Evolution is regarded as fundamental theory by scientists that does not sit well with the masses. However, the theories of evolution cannot summarily explain the mystique and experiences a parent feels in the development and birth of a child as opposed to the postulates of creationism.


Book review.


The editorial responses (number of respondents = 70) of scientists in interdisciplinary periodicals and books to the phenomenon of scientific creationism are analyzed to extend the work of Lester R. Kurtz on the politics of heresy. It was found that much like instances of heresy within religious contexts, scientific creationism, as heresy, elicits from orthodox scientists a rhetoric serving to solidify authority, define institutional boundaries, enhance group solidarity, and, as ritual, to collectively relieve anxiety.


Book review.


This article examines the interrelated legal and scientific nature of the creationism controversy. It discusses McLean vs. Arkansas Board of Education and analyzes current tactics used by creationists, concluding that they are constitutionally impermissible. An approach is proposed that balances First Amendment interests with the need for academic freedom.


Discusses the reaction of evolutionists to the creationists' efforts to pass legislation which would mandate the teaching of the biblical account of creation.

Describes the case of the American Civil Liberties Union versus the state of Arkansas concerning this state's law requiring equal time for the teaching of creationism and evolution. The ACLU contends this law violates the separation of church and state clause of the First Amendment.


Reviews the major points of the American Civil Liberties Union challenge to the Arkansas bill “Unbiased Presentation of Creation Science and Evolution Science Bill.”


Summarizes the American Civil Liberties Union's contention that Arkansas Act 590 (equal time to teaching creationism) is unconstitutional and highlights comments of various witnesses testifying during the trial.


The Texas Attorney General has said that this state's textbook antievolution rules violate the First Amendment. Responses and issues related to this statement are discussed. The history of these rules is also discussed.


Discussing a current creationism case, primary focus is on the future impact on public schools. The case, which involves a Louisiana creationism statute that has been ruled unconstitutional by a lower court, is being argued before the U.S. Supreme Court. The significance of the pending decision is evaluated.


A bid to commission the teaching of evolution in public school science classes in the southwestern state of New Mexico has been blocked due to pressure from fundamentalist Christians. States were banned from requiring public schools
to teach creationism by the U.S. Supreme Court in 1987, and this stemmed from a Louisiana law requiring that creationism be taught when evolutionism was discussed. However, the conflict between Charles Darwin's 1859 theory of evolution and the traditional Biblical teaching is expected to continue.


Book review.


There is a conflict between those who support evolutionary theory and those who support creationism even within the schools. Creationists believe that the Bible's story of Genesis is fact, as shown by the complexity of life. Supporters of evolution believe that the scientific record provides proof, especially with the advances in genetics, biology and other areas. Almost 50% of Americans believe in creationism over evolution and many legislatures and school boards are considering whether to teach creationism.


Book review.


Proponents of the reinclusion of the teaching of creationist science in schools in the U.S. are motivated by anxiety that studying the theory of evolution would lead to perception of life devoid of meaning and purpose. However, survey data show that most citizens are unfamiliar with fundamental scientific principles. So, for the sake of scientific literacy, students should at least be exposed to different views. Americans are capable of a pluralistic mindset which enables them to simultaneously hold a belief in God as well as to credit evidence supporting the evolution theory.


Historian Ronald Numbers, author of The creationists: the evolution of scientific creationism, discusses the history of the creation-evolution controversy. His own views on the issue derive not from the theory itself but on the intense feelings of its
advocates.


The creation/evolution controversy can be best thought of as a contest over control of a portion of educational policy. Scientists do not dispute the right of fundamentalist Christians to believe that Genesis is a history and a science textbook. The difficulty arises when fundamentalists seek to bring their sectarian religious faith into biology classes in public schools as legitimate science. Contained in this collection are the policy statements of 68 organizations on the topic of this controversy. Scientific, religious, and educational organizations from around the world and the United States in particular, representing many faiths and points of view are included.


The controversy over creation and evolution rests on the need to split science from religion. Fundamental Christians and others lead the fight to take the account of creation in Genesis at face value. Polls indicate that about 45% of the American public believe in taking the Bible literally.


Some school districts have violated the 1987 Supreme Court decision against mandating the teaching of creationism. These districts require science teachers to teach evolution alongside creationism and to have the students vote on which they believe to be correct. This sort of democracy has no place in science; public opinion is not the criterion of scientific truth. Those who argue that both creationism and evolution should be taught have transmuted the political obligation of freedom of speech into an obligation to support ignorance.

Editorial.


Laibman's 1997 criticisms of “The new creationism: biology under attack” (The Nation, June 9, 1997 by Ehrenreich and MacIntosh) raise valid issues and invite further clarifications of certain matters. One of these matters is his contention that the authors did not take into consideration the issue of symbolism, which he believes liberates humans from biology's "instinctual determination." MacIntosh argues that while symbols play a role in human experience, Laibman's approach in ignoring biology is too simplistic.


A constructivist role in psychology such as that advocated by Hoshmand and Polkinghorne, it is argued, is analogous to that of creationism in biology. The aim of both is to undermine belief that reasoned application of the scientific principles provides a valuable domain of knowledge.


The logical relationships between the ideas of evolution and of special creation are explored here in the context of a recent paper by Alvin Plantinga claiming that from the perspective of biblical religion it is more likely than not that God acted in a "special way at certain crucial moments in the long process whereby life developed on earth." The author argues against this thesis, asking first under what circumstances the Bible might be thought relevant to an issue of broadly scientific concern. He goes on to outline some of the arguments supporting the thesis of common ancestry, and argues finally that from the theistic perspective, special creation ought to be regarded as, if anything, less rather than more likely than its evolutionary alternative.

Proponents of creationism are using the intelligent design theory to support their belief that a divine creator crafted all of the Earth’s biological citizens. They point to the complexity of the Earth’s biological species as an indication that a being of a higher level actually designed them. However, opposing scientists point out that many organisms possess design flaws that could not have been overlooked by a master creator.


Suggests instructional strategies for biology teachers confronted with creationism in the classroom and ways of dealing with the literal view of the public regarding the Bible. Supporting documentation (such as Christian ideas supporting scientific spirit and inquiry and definitions of the earth) is included in appendices.


Edited by Ashley Montagu [with essays by Isaac Asimov and others].


Examines antievolutionist Christian groups in the U.S., in particular, their efforts to include “creation science” in public school curricula in the U.S. and worldwide. The evolution of the creationist view from a theological viewpoint under attack by secularists to a successful, internationally known phenomenon is described. The ideas and actions of specific groups, e.g., the Creation Social Science and Humanities Society, are analyzed. It is shown how evolution threatens not only the arguments of creation science, but also the foundations of the fundamentalist view of life. Difficult epistemological, hermeneutic, and ideological questions, internal
tensions, and external challenges faced by creationists are discussed in the context of their goals and future as a movement. Efforts to address these questions and challenges, in particular, by the reformist "postmillennial" fundamentalist creationists, are assessed. It is argued that the "premillennialist" influence must be removed for the movement to offer a more self-consistent ideology. It is concluded that, until creationism is recognized as the one religious solution to the intractable questions of existence, it will continue as a subculture, albeit a thriving one.


Editorial.


The prevalence of legislation condemning teachers for teaching evolution as the foundation of biology indicates the growing support for creationism over science and enlightened thinking. One Georgia county even asked a publisher to remove a chapter on evolution from a textbook and the publisher complied, considering it a good business move. Among the states having anti-evolution legislation are Tennessee, New Hampshire, Alabama and Louisiana.

Editorial.


The forces opposed to the theory of evolution have expanded into business activities. For example, Answers in Genesis has over 30 workers and a vehicle fleet spreading its message via books, videos and seminars. Previously named Creation Science Ministries of Kentucky, Inc., the firm doubled its size annually. It is typical of a growing movement.


Argues that Darwin's On the origin of species remains a seldom-read book among both biologists and biology students. Explains that this situation presents two problems: (1) it perpetuates misconceptions about Darwin and his ideas, and (2) it prevents an understanding of developing arguments through the selection of appropriate analogies and metaphors.

Evolution is not being challenged by new discoveries, but by religious fundamentalists. The public’s acceptance of creationism has allowed it to become increasingly common in America’s classrooms. Near the turn of the century a national study reported that 45% of science teachers supported the inclusion of creation in the classroom. A review of the Scopes trial and the history of anti-evolution sentiment in the United States is also presented.


The trial of John Thomas Scopes pitted creationism against evolution and both sides claimed victory when the Tennessee trial ended in July 1925 with a guilty verdict for John Thomas Scopes. The aftermath of the trial, the appeal of Scopes’ verdict and an examination of influential opinions of the time are examined.


The Arkansas state legislature passed a bill banning the teaching of human evolution in 1927, a statute which stood for over 40 years. In 1965, Susan Epperson, a high school biology teacher, challenged that law and her petition was supported by the U.S. Supreme Court in 1968.


The 1968 decision on Epperson vs. Arkansas permitted the teaching of evolution in Arkansas, treating evolution as a theory rather than a religious belief. This ruling did not address restrictions on the teachings of creationism but there was significant reaction from fundamentalist Christians. The movement known as “creation science” began in 1970 and has been challenging textbook publishers and school districts ever since.


This study has a two-fold purpose: (1) To introduce the reader to the scientific creationism movement (its general tenets and its science), and (2) to offer a critique of the Biblical and theological aspects of scientific creationism. The scientific creationism movement is founded upon the fundamentalist doctrine of Biblical inerrancy, which suggests that there are no errors of fact—whether scientific, historical, or theological in nature—in the Scriptures. This doctrine, plus the renewed teaching of evolution in the public schools during the early 1960s, led a group of fundamentalist scientists to resume the attack on evolution which was so prevalent during the 1920s. The scientific creationist case against evolution contains essentially two elements. First, creationists take advantage of the multiplicity of definitions which are available today for evolution to make a selective attack on "evolutionism" (a metaphysical philosophy of evolution which has become a religion for some scientists) and neo-Darwinism (a particular theory about how evolution occurs which is being seriously challenged by many scientists today). The only argument which scientific creationists advance against the historical theory of evolution is that it violates the second law of thermodynamics. Second, scientific creationists offer their own model of creation which is based on the pseudoscience of flood geology (a theory that all of the fossiliferous strata in the earth's crust were laid down during Noah's flood) and a slanderous critique of radiometric dating. From the Biblical perspective, scientific creationists claim to interpret the Bible "literally," but an analysis of their hermeneutics reveals that they actually interpret the Bible "inerrantly"—i.e., so that it appears to be without error. As a result, scientific creationists consistently distort the "literal" meaning of Genesis in order to harmonize the two creation accounts and impose their own "scientific" worldview onto the texts. Their scientific distortion of the Bible, however, also leads them to a distorted theological worldview which exchanges the goodness of the present world for a "cursed" universe and the God of love revealed in Christ for a God of judgment and cursing. In the final analysis, scientific creationism, despite certain similarities to the Bible and science, does not truly deserve to be identified with either.


Presents a unit on evolution and creation theories in which students explore the legal issues surrounding the teaching of evolution and creation in biology. Students write preliminary essays, study conflict resolution techniques, and conduct a moot trial of the Scopes case of 1925. A course outline is provided.


Letter to the editor.

Letter to the editor.


Discusses the effects on astronomy courses/curriculum if equal time were given to the concept that the universe was created in its present form about ten thousand years ago. Includes the full text on a resolution concerning creationism passed by the Board of Directors of the Astronomical Society of the Pacific.


Urges biology teachers to discuss creationism in classrooms, pointing out why it is not science. Indicates that such action would be farsighted recognition of and response to a genuine educational need in society. Topics addressed include scope of science education, the creation movement, censorship, and suggestions for implementing creationism in the classroom.


Discoveries of various forms of life on Mars do not necessarily undermine Christianity. Those who believe in strict interpretations of creationism will have the greatest difficulty in incorporating information regarding the discovery of life on Mars.


Editorial.


Professor Richard Dawkins argues in his book Climbing Mount Improbable that the universe evolved from randomness, not from some overriding design by God. He is the latest advocate for the importance of scientific reasoning in discussing matters of existence. Several other intellectuals are discussed.


The media unfairly characterized the October 1996 papal pronouncement as a capitulation to modern theories of evolution. However, the research of biochemist Michael Behe of Lehigh University and others, posits a non-random or "design" in key elements of human evolution.

Editorial.


Trace origins of present-day creationists from their 19th-century fundamentalist beginnings, focusing on past and current objections to the teaching of evolution and efforts to require the teaching of creationism in public schools. Discusses creationist arguments and strategies to accomplish their aims.


Suggests that educators and scientists publicize the nature of creationism and expand science education for nonscientists in schools and colleges since the general public lacks sufficient familiarity with science to evaluate misleading creationist claims. Includes comments on the general decline in science education.


Book review.


Book review.


As the crusade to outlaw the teaching of evolution changed to a battle for equal time for creationism, the ideological defenses of that doctrine also shifted, from biblical to scientific grounds. The development of "scientific creationism" is described, focusing on the intellectual leaders of creationism, particularly those claiming scientific expertise.


See under the names of the authors of individual titles in this series for fuller information.


Contents: The other side of evolution / Alexander Patterson. At the deathbed of Darwinism / Eberhard Dennert. Collapse of evolution / Luther Tracy Townsend. The passing of evolution / George Frederick Wright.


Contents: The creationist (1937-8). The bulletin of creation, the deluge and related science (1943-5). The Forum for the Correlation of Science and the Bible.


Discusses the continuing controversy over evolution and creationism and the role that the courts have played. Examines the effects that result from this controversy, such as the overly cautious selection of textbooks by adoption committees and publishers' reluctance to include "questionable" materials in new books.


The legal tests that are applied to the issue of state mandates to provide creation
instruction in public schools, and the implications of the mandates, are discussed. This issue is compared with other curriculum mandates and requirements to illustrate the difficulty of the problem.


Book review.


A survey of science and English teachers in the Pennsylvania school district showed little difference of opinion on teaching creation science in the public schools. About 34% of the teachers agreed it should be taught in school and 38% said it should not be. The difference between the two groups was significantly different when the survey asked if creation science is central to biology. Fourteen percent of the English teachers and 22% of the science teachers said it was not central to biology.


Students enter teacher education programs with pre-existing beliefs about the teacher's role, what constitutes effective teaching, teacher planning, and knowledge structures. This case study examines the changes in one preservice science teacher's attitude and beliefs towards the teaching of creationism as a result of her personal inquiry. The student was a female, 28-year-old nontraditional student, enrolled in the undergraduate introductory course of a 2-year secondary education course of study at an urban southwestern state university. Data was collected from a questionnaire, early microteaching lessons, concept maps of teaching, reflective papers, student learning journals, interviews, and a field paper of an in-depth personal inquiry into the teaching of creationism. Findings indicated that as a result of her personal investigation, the student changed her beliefs about the teaching of the origin of life in the science classroom. The paper concludes that teacher educators can invite critical inquiry into attitudes and beliefs about teaching and prepare teachers with sound rationales for teaching, if their views about what to teach and how to teach are tested from a constructivist approach.

Paper presented at the Annual Meeting of the National Association for Research in

The creation/evolution controversy has gained renewed popularity in the last few years. This has resulted in serious implications for science teachers. All classroom teachers need to protect themselves by learning the distinctions between scientific law and theory and to acquire knowledge of the various theories of evolution.


Book review.


The lesson to be learned here is the principle of allowing the Bible to say what it wants to say and not impose our imperialistic agendas onto it; our exegesis ought to let the text speak and the chips fall where they may.


Identifies the groups contributing to the writing and thinking on scientific creationism and the five-step strategy used to influence local boards of education and state legislatures on the subject.


Describes the current movement to elevate biblical creationism to a scientific theory to be taught alongside evolution in the public schools. Focuses on the strategies and influence of pro-scientific creationism groups and reviews pending legislation that would mandate equal teaching time for creationism.

Presents an outline of the creationism vs. evolution debate in Australia.


University of Melbourne Head of Earth Sciences Ian Plimer has taken creationist Allen Roberts to court because Plimer believes Roberts is misleading the public over his promotion of a location for Noah's Ark. Roberts claims to have discovered significant evidence that the remains of Noah's Ark are located near Mount Ararat in Turkey. Plimer, who has also visited the site, says there is no indication anything unusual has ever occurred in the area. His lawsuit is one of several disputes between scientists and creationists in Australia.


Antiquities found in an archaeological site in Turkey believed as Noah's Ark relic was disputed by a University of Melbourne geologist Ian Plimer at a court hearing on the "Noah's Ark/Creationism Trial" in Sydney, Australia. Plimer said that his study on the site was refused by geophysicist Salih Bayraktutan at the same time admitting his ulterior financial interest on the project. David Faso Id, a former supporter of the Ark evidence expedition claims that he was led to believe that "creation scientist" John Baumgardner was a geophysicist who could authenticate the relic.


University of Melbourne geologist Ian Plimer has seen a judge dismiss the main element of his case against fundamentalist church elder Allen Roberts, who claims that he has discovered scientific evidence for the existence of Noah's Ark. The judge rejected Plimer's argument that Roberts had acted in trade or commerce and was therefore guilty of misleading his financial backers. The case is likely to fuel the bitter dispute between scientists and Christian fundamentalists regarding biological evolution as against the literal truth of the story of creation as told in the Bible.


Reviews the history of the evolution-creationism controversy, citing court cases pertaining to it.


Various aspects of the current evolution/creationism controversy are reviewed including the impact of attempting to remove evolutionary material from textbooks and including creationist material. A number of viewpoints, opinions, and references from current literature are cited.

ED209086; available from ERIC.


Contents: Illogical geology: the weakest point in the evolution theory. Q.E.D., or, New light on the doctrine of creation. The phantom of organic evolution. Theories of Satanic origin.


Argues that a literal, fundamentalist interpretation of the Biblical story of creation is inadequate and inconsistent.


Contents: Are the scriptures scientific? Darwinism, or, Is man a developed monkey? Darwin's philosophy and the Flood. Evolution, a false philosophy. The scientific accuracy of the sacred scriptures. The theory of evolution tested by
mathematics. The theory of evolution, does it tend to atheism? The theory of evolution, does it tend to anarchy? Hitlerism, or, The philosophy of evolution in action.


Editorial.


Book review.


Book review.


Ruse, Michael (1986). "The academic as expert witness." Science, Technology, and
Based on personal experience as an expert witness called by the American Civil Liberties Union in its 1981 attack on the Arkansas Creationism law, issues relevant to an academician's participation in such a setting are debated. Focus is on moral concerns, the role of legal strategy, and witness responsibilities. Justifications and appropriate scientific methods for fighting the creationists are detailed. In Commentary: The academic as expert witness, Harold P. Green (National Law Center, George Washington University, Washington, D.C.) supports the contention that expert witnesses must support the interpretation of law and legal strategies endorsed by the side for which they testify. If they cannot, nor avoid prostituting their knowledge for personal gain or dubious cases, they should refrain from testifying. Colleagues who do testify—with the proper attitudes and motivations—should not be criticized.

Comment, p. 73-75.


Advocates of creationism highlight certain issues to discount the theory of evolution. They pinpoint gaps in the fossil evidence supporting this theory. They emphasize the absurdity of producing complex physical adaptations in animals through the simplistic mechanism of natural selection. They assert that a divine designer was responsible for the emergence of all living things. Evolutionists counter these arguments by citing recent fossil discoveries, explaining the cumulative effect of natural selection and querying the alleged designer's motives for mal-mutations among organisms.


Scientists and theologians are starting to recognize a continuity in their belief systems. Leaders in each field are examining aspects of the other and viewing how it effects the universe as a whole.


Sagan cites statistics revealing the scientific illiteracy of the the American public,
including the fact that a majority of Americans do not accept evolution, and stresses the necessity of bringing about, through education, a population conversant with at least some knowledge of the scientific method.


Describes the response of the scientific community to creationist activism. A symposium entitled “Science and Belief” was held at the annual meeting of the American Association for the Advancement of Science to debate creationism. A network was organized to facilitate communication and political efficiency among anticreationist citizen lobbies.


Examines sociopolitical conditions that allowed pro-creationist and anti-evolutionist movements to thrive in Georgia and other southern states. Describes efforts by leading citizens to influence legislation toward propagation of the creationist philosophy, especially in education. Stresses the need for scientists and educators to oppose creationist policies.


Creationists are trying to convince state legislatures to allow teachers to present scientific evidence that refutes the theory of evolution. This strategy has been successful because it does not seem to have religious overtones.


Book review.


The movement to give equal time to creationism in science classes has gained much ground since the 1960s. Even as these “equal time” provisions have been outlawed by the Supreme Court in 1987, attempts to push for equal status for
creationism alongside evolution have continued.


Antievolutionists are seeking ways to prevent evolution from being taught in U.S. schools. They claim that teaching revolution forces students to doubt the existence of God. Antievolutionist groups resort to deception and misrepresentation to further their cause for creationism. Scientists are urged to get involved with the issue, avoid debates with creationists and preserve the middle ground if they are religious.


Letter to the editor.


The Pope's statement on evolution to the Pontifical Academy of Sciences in October 1996 should have a greater effect on the general American public than on scientists. Design theorists and conservative Christians believe the Pope's statement supports their contention of evolution as a materialist philosophy. Creationists contend the Pope's statement is incompatible with the Christian position and has come at a time when the evolution theory is in crisis.


Examines the views and attitudes responsible for conservative Christians' rejection of evolution as scientific fact and addresses the terms and issues critical to understanding the antievolution movement in the U.S. during the last century. Historically, antievolutionists have attempted to ban evolution and present it on an equal footing with creation science. Scholars largely ignored antievolutionism until
efforts to pass equal time for creation and evolution laws stimulated both political and scholarly activism. Lately, there have been efforts to discourage the teaching of evolution by requiring teachers to read disclaimers before teaching it, to teach it as theory, not fact, or to present evidence against evolution. Although rejected by scientists, intelligent design arguments and publications are appearing at the college level (in nonscience courses) as accurate representations of scientific scholarship. It is concluded that anthropologists, as students taught evolution explicitly and as scientists who also study religion, may be the scientists best equipped to deal with the controversy.


Describes a method of contrasting “scientific creationism” and evolution, or pseudoscience and science, that was utilized in a freshman seminar at Dickinson College. Discusses how the seminar format fostered analytical thinking, research, and writing skills. Presents responses given by creationist students after the course.


For many years, teaching the evolutionary theory in Texas had been much debated. For the 1991-1992 academic year, the State Board of Education in Texas
mandated that evolution be included in biology textbooks. This move had been welcomed and supported by Texas biology teachers but not in a manner commensurate to its importance as a unifying theme for the biological sciences. A majority of teachers were opposed to teaching creationism but do so out of fairness and basis of creationism upon scientific evidence.


Points out that the most basic of creationist attacks of geology, their claim that uniformitarianism is an unreliable basis for interpreting the past, fail because the uniformitarianism they describe is no longer a part of geology. Indicates that modern uniformitarianism is merely the philosophical principle of simplicity.


Provides a list of references on creationism divided into six parts covering: books and collections of articles; articles on geological aspects; articles on physics and biological aspects; articles on philosophical and religious aspects; articles on educational, legal, sociological, historical, and public policy aspects; and major creationist works.


Science and religion have long been on opposite sides of the debate on human origins. However, some theologians are trying to incorporate biological data into their theories. An in-depth analysis of scientific and theological research into human origins is presented.


"Originally published in volume 2, no. 2 of Skeptic magazine"—T.p. verso.

Describes the origin of the amicus curiae brief submitted in response to the Louisiana Balanced Treatment Act for creation science and evolution science that had been struck down in the Federal Court of Louisiana in 1985 and was being appealed to the Supreme Court. Discusses the historical significance for the collective defining and defending of science by 72 Nobel laureates.


Scientific creationists initially lacked the credibility needed to stop the teaching of evolution in U.S. high schools. The 1961 book The Genesis flood and the Institute for Creation Research have since made creationism more popular. Arkansas Judge William Overton's 1982 decision concerning science curriculums was a blow against the movement. However, the well-organized ICR has a publishing company, school board candidates and some academic recognition. Creationists, who are again proposing debates, are accused of luring the ambivalent public to fundamentalism.


Phillip E. Johnson defends Christian theism in his new book Reason in the balance. He criticizes the theory of evolution and the naturalistic worldview of most scientists. He argues that modern biology does not sufficiently explain animal and human evolution, particularly the issues of how life began and how simple systems evolved into complex ones. Johnson uses these arguments as evidence of the existence of the supernatural, especially the Christian God.


Addresses both the issues raised by the recent trial in Sacramento, California, "Scopes II," which pitted evolution against scientific creationism, and the questions that stem from the trial's failure to address those issues.


Books that contain responses by the scientific community to the challenge posed by creationism are discussed. Scientists defend evolution from creationist criticisms, assess creationism with respect to its own positive scientific contributions, and consider a variety of educational issues that the controversy

Book review.


Since the early twentieth century in this country, a basic conflict has existed between proponents of fundamentalist religious views of biological origins (creationists) and modern science that alternates between quiescence and agitation. In the early 1980s, the conflict went through one of its active phases, generating a great deal of heat and vitriol at the local, state, and national levels, and raising classical issues, having a profound effect on school textbooks and on local school science curricula, and raising several new and different issues about science and its method. Explored are the historical development of the controversy, the nature of the creationist position and claims, the effects of these claims on our educational system, the way the controversy has been dealt with in the legal arena, and what the controversy has to say about the nature of science. It is concluded that the controversy has important lessons for both science and society. These lessons involve society's perceptions of the nature and limits of science as well as the role that science plays in modern society.


Suggests that Genesis is not a scientific treatment of the earth's origin/age, but is a primitive religious history of Israel and a polemic against much of the theology of the Babylonian creation myth. Indicates that Genesis narrative and conclusions of science belong to different spheres of knowledge. Educational implications are addressed.


Examines the legal status of demands that “scientific creationism” be taught along with evolution in biology classes.


This paper, presented at the annual meeting of the National Association of Biology
Teachers, is focused on legal and judicial problems in mandating equal time for creationism. Past events provide evidence that legislation, policies, and local resolutions that require science textbooks and curricula to include the Genesis account of creation are unconstitutional. Now, scientific creationism, rather than biblical creationism, is being promoted to neutralize the study of evolutionary theory. However, even the proponents of creationism admit that creation science is not scientific when they say it lies beyond the limits of empirical science, it does not provide a testable scientific theory, and it cannot be disproved. To counter the argument that creationism is religious, the creationists claim that evolutionary theory is religious theory and is an important tenet of secular humanism which they term the religion of the modern age. While the courts have affirmed the right of schools to include evolution in the curriculum without such instruction constituting coercion against religious exercise, question of academic freedom if creationism is or is not taught have not been resolved.

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Legal decisions and other arguments support the argument that the exclusion of creationism from school curricula is not the result of censorship or bias. Equal-time legislation for creationism has the potential to entangle the state and religion and to make the task of teachers, textbook authors, and publishers nearly impossible.


Book review.


Letter to the editor.

A review of the major legal cases concerning the curricular debate over evolution and creationism shows how the courts, in recent cases, have applied fundamental constitutional principles in a way that preserves both intellectual freedom and freedom of belief.


Publications relating to the conflict between creationism and evolutionism in the U.S. are reviewed, focusing on the years 1978-1984. Creationism originated almost entirely within fundamentalist and evangelical churches, which argue for the literal truth of the Bible and have produced an extensive literature on "scientific creationism." The historical and archeological evidence on the origins of Biblical accounts is critically reviewed. The courts in the U.S. have largely ruled that creationist biology textbooks represent an establishment of religion and are therefore unconstitutional. The theories of evolution are summarized, and creationist arguments against evolution—including the second law of thermodynamics, the lack of intermediate steps in the fossil record, and the nonobservation of the origins of new species—are reviewed and found unsatisfactory.


Arguments, even theological or interdenominational ones, need to include patient, respectful listening by all parties to all viewpoints. Several errors of debate, civility, and public relations in evangelicals' handling of debates about biblical inerrancy, and creation science, are analyzed.


Professor Phillip Johnson of the University of California, Berkeley law school renewed his interest in the creation/evolution debate while on a sabbatical in England. He became a born-again Christian and is now totally dedicated to debunking what he calls the “140 year” myth of evolution.


The once dormant debate between evolutionism and creationism has erupted again
in a flurry of public debates, court actions, and publications. A content analysis, incorporating categories from communication theory, was conducted of transcribed tapes of debates between proponents of creationism and evolutionary scientists, as well as of other creationist documents and previous research. Results suggest that some of the apparent success of creationists in influencing public opinion is a result of differences in the form, rather than the content, of the arguments of both sides.


Most articles on creationism focus on whether or not creationism should be included in science courses on an equal footing with evolutionary theory. However, positive influences that the debate can have on biology teaching should also be considered; this could lead to a deeper understanding of evolution and of science itself.


A critical comment is presented on Robert Charles Williams’s analysis of scientific creationism. Williams creates problems by giving scientific creationism and creationism the same meaning, and by conflating creationism and evangelical Christianity. Christianity itself allows a certain latitude of interpretation regarding the creation, including a place for evolutionary interpretations, according to several critics (e.g. Albert, Jerry D., “The dangers of ‘special creationism’ to Christian faith,” Journal of the American Scientific Affiliation, 1982, v. 34, p. 178-179). Creationism is also based on an inaccurate reading of the Bible, according to William F. Tanner (“Time and the rock records,” Journal of the American Scientific Affiliation, 1981, v. 33, p. 100-105).


Creationism is considered the most radical revival of antiscientific thought. Henry M. Morris, founder of the philosophy, advocates the Biblical account as historical fact and supports it with scientific proof.

Discusses books and materials published by creationist organizations to promote creation science interpretations on the demise of the dinosaur. Compares many creationist theories with current evolution theories and geological records.


Editorial.


Explains a new approach by creationists to pass state legislation which supports their philosophy yet sidesteps the issue of separation of church and state by avoiding direct mention of God, the Bible, or divine creation. Warns of the ramifications of such legislation to science education and general education.


Examines the creationism/evolution debate in the context of philosophy, using ontological models in which reality is assigned to one or both natural or transnatural (supernatural) realms. The six models (theistic-teleological dualism; deistic-mechanistic dualism; fundamentalist creationism; atheistic monism; theistic monism; mechanistic monism) deal with cosmology, geologic time, planetary evolution, biopoesis, and organic evolution.


Because creationism is not experimental, research-based, or accepted by scientific experts, it is not truly scientific and does not deserve equal time in science classes; yet, like all religious beliefs, it deserves tolerance and respect.


Argues that the fight against creationism in public schools is essential to the preservation of First Amendment rights guaranteed by the U.S. Constitution. Discusses how creationists, to avoid religious issues, are presenting the “creation science” (pseudoscience) issue in terms of academic freedom and censorship.

The anti-evolution movement gathered 160 academics from 98 colleges for a November 1996 meeting at Biola University in California. They are hopeful that a new respect for the complexity of human biology, plus new theories of the philosophy of science, will allow their ideas into the academic mainstream.


Presented are the results of a survey of biology teachers. Results are compared to surveys of Ohio and Kentucky. Suggestions to improve the coverage of evolution are included. A copy of the survey questionnaire is appended.


Letter to the editor.


The issues of evolution and man's role in it and the ambiguity of creationism are discussed, as well as the development of a belief in naturalistic processes. A way of presenting evolution that does not violate scientific knowledge and respects religious and mythological creationist beliefs is briefly outlined.


Presents a case study of the interpenetration of the paradigm discourses of science, religion, politics, and law and public motive structures as demonstrated by the controversy over scientific creationism. Argues that the discursive populist commitments of journalism indirectly legitimate the populist discourse of creationism.


A rhetorical account for the appeal of creationism is explored, arguing that creationism endures not only in spite of the response of the scientific community, but also, in part, because of it. An analysis of the creationism controversy based on a review of materials published 1975-1990 indicates that the scientific response to creationism misconstrues both the scientific pretensions of creationism and the relative insularity of scientific decision-making on questions of public policy. The response ultimately proves unresponsive to the public appeal of creationism, which
is grounded in an empiricist folk epistemology. Implications are drawn for theoretical understandings of the relationships between technical and public discourses and the related relationship between technical expertise and rhetorical authority.


Explores the adherence to pseudoscientific beliefs, drawing on 1993/94 questionnaire data from 338 students at the University of Texas at Arlington. Results indicate a strong correlation between the creationism scale and cultural traditionalist respondents with a conservative social agenda, conservative views on vitality, an oppositional stance toward abortion, and literal interpretations of the Bible. Postmodernist respondents’ determination of truth is not related to religion or to science.


Examines growing literature of paranormal phenomena and other areas of investigation that are in conflict with mainstream science, and considers reasons for this growth and similarities which link these areas together within realm of pseudoscience. The dilemma librarians face in dealing with pseudoscientific materials is considered.


Reports on the creationism controversy in Australia.


Book review.


Book review.


A three-part typology is used to evaluate the influence of the cultural-historical dynamics of the social role of scientific authority on U.S. creationist thought. Modern creationist positions on the merits and credibility of scientific authority are described and then analyzed in terms of the history of three cultural models of science that circulate in U.S. popular culture. It is concluded that creationist attitudes about scientific authority represent an interesting problem, and that the social role of scientific authority is both varied and complex.


A group holds monthly discussions about creationism. The study group, composed of science professors, a computer engineer, an electronics technician, laboratory scientists and doctors, specifically aims to relate scientific evidence to creationism.


Reports on a study which was conducted to provide a sample of biology teachers an opportunity to describe their experiences and opinions regarding the controversial issue of evolution and opinions regarding the controversial issue of evolution and creation as it relates to teaching about the origins of life. Provides the objectives, sample selection, an analysis and a conclusion.


The view of the universe as having been created by God does not preclude the acceptance of cosmological evolution. The controversy between these positions often structures the debate as one’s correctness logically defeating the other, yet this contains a logical flaw. This flaw can be avoided by regarding creation as possessing a robust formational economy, or an “optimally equipped” creation.


Letter to the editor.


A number of scientists hold to the biblical account of creation and are attempting to marshal scientific evidence to corroborate it. Some pieces of such evidence that creationist scientists cite are the rate of decay in the earth's magnetic field, the rate of salt accumulation in the oceans, and the rapid recovery of Mount Saint Helens following its eruption 18 years ago. Other scientists dispute the creationists' interpretation of these data. Other conservative Christians believe that arguing for a young earth is an issue subsidiary to establishing a more religiously oriented society.

Contents: v. 1. Basic and educational sessions. v. 2. Technical symposium sessions and additional reports / edited by Robert E. Walsh, Christopher L. Brooks, Richard S. Crowell.


Book review.


Letter to the editor.


Presented is a strategy which uses creationism and other pseudosciences as examples of nonscientific approaches to pseudosciences as examples of nonscientific approaches to critical thinking to teach students the nature of science and the scientific method. Examples of the illogic of nonscientific approaches are given along with an explanation of how they can be used in teaching critical thinking to introductory science students.


The teaching of intelligent design in public school biology classes violates the First Amendment, but evolution and religion should be reconciled by society outside the classroom. Publication of Of pandas and people: the central question of biological origins has renewed the debate by suggesting that intelligent design theory is scientific. Intelligent design violates the Establishment Clause because it assumes a creator that designed the evolution of all life. Supreme Court rulings preclude
the teaching of all religiously based doctrines in public schools.


Biochemist Duane T. Gish argued for creationism at a debate held at Murray State University in Murray, Kentucky. An author of a number of essays that proclaim the “scientific” basis of creationism, Gish is regarded by science practitioners as someone who could not be trusted to be scientific. Expounding on the second law of thermodynamics, entropy, evolution and creationism, Gish deftly evaded the more-scientific arguments of his opponent, William Schell, Assistant Professor of History at Murray. After an audience survey, Gish was announced “winner” at the end of the debate.


An exegesis of the seminal works of Henry M. Morris, director of the Institute for Creation Research at Christian Heritage College, El Cajon, California, clearly reveals that scientific creationism is a religious doctrine. It is a necessary dogma of the conservative evangelical’s particular form of Christianity, is premised on a literal interpretation of the Bible, and has as its purpose the defense of Jesus Christ as Lord and Savior.


Evolution and creationism should be debated at the nonscientific level, using a comparison of objects and organisms. Human beings have modified, refined or corrected the objects they have created, such as industrial processes and inventions. Extending the analogy, it is therefore blasphemous to state that God cannot do the same with his own creations.

Editorial.


The concept of creationism is based on Biblical accounts on how earth was created but it opposes modern science concepts on creation. Teaching the concept of
creationism in school as a scientific fact has not been allowed in science classes because of its inadequate solid bases. However, proponents of creationism encourage public support by raising religious issues. The conflicting views of creationists and modern scientists have stimulated a series of debates regarding the issue.


Letter to the editor.


Contains corrections to the original article in American Scientist, v. 86, no. 2, March-April 1998.


People who believe in creationism have failed for the most part to make public schools teach it, but scientists of faith continue to work on a "creation model" for Earth and humankind. Part of that job, according to participants at a recent national conference, is to weed out questionable theories on both sides of the issue, from what they call "bogus science" to claims made by enthusiastic but untrained creationists.


A review essay on a book by Michael A. Cremo and Richard L. Thompson, Forbidden archeology: the hidden history of the human race (San Diego, Calif.: Bhativedanta Institute, 1993). Cremo and Thompson argue that Homo sapiens could have existed before Tertiary Man, and offer a branch of creationism based on ancient Vedic beliefs. It is suggested that the arguments in Forbidden archeology draw on similar arguments of the creation science movement, particularly palaeoanthropology, although the authors claim that their approach is similar to that taken by practitioners of the sociology of scientific knowledge. Although palaeoanthropological claims have been largely discredited by current theorists, the authors invite reconsideration of these theories. In this context, Cremo and Thompson target orthodox evolutionary palaeoanthropology as well as Darwinian evolution.

Abbotsford, B.C.'s school board's policy of mandatory instruction in creation science is being challenged by concerned parents, teachers, and school board member Scott Goodman. Opponents of creationism claim it is a fundamentalist religious theory and thus has no place in a secular classroom.


Alternative hypotheses on why school prayer and creationism continue to receive widespread public support in the U.S. are tested using data obtained via telephone interviews in North Carolina in 1989 (N = 332 respondents). Logistic regression analysis indicates that low education, religious salience, and political conservatism increase support for both issues; yet multivariate findings indicate the social support bases of school prayer and creationism are substantially distinct. Biblical literalism is critical to creationist support, whereas biological ignorance is not. School prayer support derives from more heterogeneous sources than does creationism. Findings are interpreted in terms of moral communities and competing worldviews held by religious traditionalists vs modern secularists. Despite considerable public communities and competing worldviews held by religious traditionalists vs modern secularists. Despite considerable public support, it is concluded that political prospects for these proposals are limited.


This study: (1) comprehensively reviews previous research on the treatment of evolution in high school biology textbooks; (2) describes the treatment of evolutionary theory, including mention of creationist explanations of the development of life forms, in the most recent editions of 15 high school biology textbooks from the major publishers; and (3) discusses what the treatment of evolutionary theory in these textbooks indicates about publisher responses to pressure from groups interested in modifying the treatment of evolution (and including non-scientific explanations in science textbooks) and the consequences for educational consumers of such textbook publishing policy. Previous research shows that from 1920 to 1960, the majority of biology textbooks (and those most popular ones) inadequately covered evolution and Darwin or excluded this material. The analysis of the 15 books revealed four patterns of publisher response to the treatment of evolution (from 6 books presenting extensive and uncompromising treatments of evolution to 2 books avoiding the subject). Thus, educators do have a choice when selecting textbooks with respect to evolution. However, it is pointed out that in this situation textbooks have become a statement of value, not of scholarship and pedagogy.

Prepared by the Committee on Science and Creationism. National Academy Press, 2101 Constitution Ave., NW, Washington, DC 20418 (single copy $4.00; 2-9, $3.00; 10 or more, $1.75).

Behe's book argues that evolutionary theory fails at the molecular level because the cell is a biological system of irreducible complexity that meets Darwin's criteria for an organ that could not form through evolution. He believes that the cell is the product of intelligent design.


The University of Minnesota organized a conference ("Evolution and Public Education," December 5, 1981) to help clarify issues in the creation/evolution controversy and to examine arguments of the proponents of scientific creationism. This six-part book, a revised version of a resource manual compiled for the conference: (1) discusses the theory of evolution and its place in science education; (2) examines the creationist movement; (3) states the position of scientific creationists; (4) responds to creationists' arguments against evolution; (5) explores legal issues in the controversy; and (6) provides some perspectives on attempts to treat the Genesis creation account as science. The fifth section, on legal issues, includes Judge Overton's decision striking down the Arkansas Creationism Act, as well as pieces of legislation which reveal the changing tactics of creationists, who first sought to ban the teaching of evolution in the 1920s, then sought equal time for biblical creationism in the late 1960s and early 1970s, and now seek a two-model approach to earth science/biology teaching (evolution as one model, scientific creationism as the other). A comprehensive bibliography lists most of the important works that directly address the controversy, as well as many publications on the philosophy of science and faith issues.


A questionnaire dealing with selected issues in the evolution-creation debate was distributed to 362 students at Oberlin College, Oberlin, Ohio. Because the survey was originally developed and distributed at Ohio State University, comparisons could be made between university students and individuals enrolled in a small, highly selective liberal arts college. Most Oberlin students claim that they believe in evolutionary theory (89%) and recognize both that it has a solid scientific foundation (88%) and that most scientists accept its scientific validity (92%). Over
one-half of the students surveyed (56%) thought, however, that creationism should be introduced into the public schools. At the same time, over one-half of those surveyed (60%) also felt that such an introduction into the public schools would constitute the teaching of religious principles. A very small fraction of the respondents had a sophisticated view of evolution (7%), but many (68%) were able to identify various components of natural selection. Evolutionary sophistication and rejection of creationism increased as a function of the amount of biology instruction received. The Oberlin students differed from the Ohio State students in that significantly more of the former: 1) accepted evolutionary theory; 2) recognized that teaching creationism in the public schools means introducing religion there; 3) were taught evolutionary theory in high school; and 4) accept the fact that scientists consider evolutionary theory to be valid. The results suggest that large numbers of people are ignorant of the specifics of both evolutionary theory and "creation science" and, therefore, are susceptible to the creationist argument that keeping creationism out of the classroom is an infringement of academic freedom and freedom of speech.


Presents the results of a survey of high school biology teachers in Ohio. Indicates that Ohio biology teachers are far more likely to support the teaching of evolution, and less likely to support the teaching of creationism, than is the general public. Includes the questionnaire in the appendix.


Stanwood residents complained when a creationist was invited to address a junior high school biology class. Previously non-political residents learned of an orchestrated campaign by the Camano Chapel church to control school curricula.


Science textbook publishers, engaged in their own struggle for survival, are catering to creationists.
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