Science & Fairness

By Jerry Bergman

The Creationists: The Evolution of Scientific Creationism, by Ronald L. Numbers (New York: Alfred A. Knoph, 1992)

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Few topics in recent years have produced the level of controversy in religious-science circles as the issue of creationism. Unfortunately, much of the enormous amount of information written about this subject is horribly inaccurate. Fortunately, Ronald L. Numbers has produced one of the most thorough and accurate studies of the creationists to date, which will help to bury the many myths floating around about this subject. An important contribution to the growing literature on the history of the creation movement, it helps assess the motivations behind those involved. Other important works on the movement include those by Henry Morris (*The History of Modern Creationism*, San Diego, Master Book Publishers, 1984) and *The Creation Movement in Modern America* by Raymond Ave and Francis B. Harrold (Boston, Tayne Publishers, 1991) and Thomas McIvers's excellent Ph.D thesis *Creationism: Intellectual Origins, Cultural Context and Theoretical Diversity*, U. of Cal., Los Angeles, 1989.

Numbers's book is mostly history (the author is a professor of the history of medicine), where McIvers's book focuses more on the scientific issues and is more in depth. Morris's is the only one written by one who spent his life in the movement and argues that creation must be considered as a science that conforms to the classic definition of science which "meant knowledge, not naturalism or secularism" (p. 248). Specifically, Numbers's study focuses on the modern American creation movement and the "remarkable shift in the prevailing meaning of creationism—from the theologically orthodox day-age and gap theories that allowed the history of life on earth to extend millions of years to a doctrine of suspect provenance (because of its Adventist origins) that compressed earth history into no more than ten-thousand years" (xi). Even of the leading clerical critics of evolution "virtually none of them insisted on compressing the history of life on earth into a mere six-thousand years or invoked the Noahian deluge to explain the fossil record" (p. 14). Virtually all of the well-known creationists accepted long geological ages or were open on the matter. As Numbers stated, "most early fundamentalists accepted a long-earth history and...many even embraced a non-literal reading of Genesis" (p. 36).

Numbers admits that many Christians may have accepted a literal day view “but these people rarely expressed their views in books and journals” (p. 18) and “for years to come” David Lord and his brother “stood virtually alone among creationists writers in limiting the history of the earth to a mere six-thousand years” (p. 19).

Numbers shows that a major reason for the reaction of religious persons against evolution as a whole in the last century is that “the purveyors of evolution may have provoked retaliation by their intolerance and insensitivity”, and that science teachers were partly to blame for the backlash because of their “smart Alec attitude toward religion” and their abuse of academic freedom—which does not grant teachers “license to insult other people's convictions” (p. 39). This common problem still persists to a great degree today, and some of the creation-evolution controversy can be blamed upon “irresponsible and poorly informed teachers who delighted in shocking naïve students with unsupportable statements about evolution” (p. 39-40). The concern about evolution, Numbers notes, was also fueled by a number of research studies such as that by Bryn Mawr psychologist James Leuba who “demonstrated statistically that college attendance endangered traditional religious beliefs” (p. 42).

Numbers also shows quite effectively that the creationists' complaint that acceptance of megaevolution can influence a person to reject both the Scriptures and Christianity, and even belief in God, is valid. Even some ASA members believe their liberal position contributed to the departing of Kulp, who both resigned from the ASA and severed his relations with a Plymouth Brethren Church because, as one person claimed, he did not “wish to be embarrassed by his association with us whilst working his way to the top” (p. 180).

Numbers recounts the story of several creationists who began with rigid doctrinaire creationism, and later accepted some evolution as part of God's plan, as if they were somehow deviating from the mainline creation movement. That is ironic in that the writer has never met a creation scientist who does *not* accept evolution, although most qualify evolution as occurring only within kinds, a process called microevolution. A good definition of a creationist is that by the Harvard trained creation scientist, Ritland, who stated that the creationism belief centers on “whether the earth with its contents, rivers, and seas, its atmosphere and climate, all well fitted for life, is a product of accident, or of plan or design.” Most creationists that Numbers covers in his book do not accept the short-age universe orientation (but then the majority of creationists that I know do not accept this position either) but as Numbers so persuasively points out, this position is controversial even within the most conservative of creation circles.

A point which was discussed, but not elaborated on, was the observation by the leading British evolutionist Shelton that he was “in surprising agreement with creationists Douglas Dewar regarding factual matters but not interpretations” (p. 336). How creationists' interpretations differ and why merits at least a chapter. That there is also much more behind the differences than the over-simplistic conclusion that the creationists are motivated by religious values—which is also an important motivation for many

evolutionists—is adequately demonstrated by Numbers. Many persons, such as Yale-trained former student of James Dana, Reuben A. Torrey, “gave up believing in evolution 'for purely scientific reasons'” (p. 39). Probably one of the most stalwart of all creationists was Harvard's Lewis Agassiz “America's most famous scientist” and “an internationally acclaimed authority on fossil fishes and glaciers” (p. 7). To be sure, religious motivations are often important, but they likewise have often been important in the militant espousal of naturalistic evolution from Darwin's time to today. As Numbers notes, though, Agassiz's creationism “bore little resemblance to the narrative found in Genesis” and he “adamantly refused to let religion determine the course of his science, whether it be with respect to the age of the earth, the appearance of humans, or the reality of the Noahian flood.” His most embarrassing belief was his “plural origin of the human races” a view which Numbers notes “aroused the enmity of many devout Christians” by the 1850s and is “in opposition to the Biblical account of Adam and Eve” (p. 7).

Name-calling and digs at creationists are comparatively rare and those used are mild. An example is when he recounts the conversion of Lane Lester, a Purdue Ph.D. trained geneticist to creationism, he used the term “rescued from evolution by Gish” (p. 290). One frustrating problem with Numbers's work is that some of the most critical quotes and statements are undocumented, or at least I could not find references for them. Fortunately, this reviewer has in his library many of the historical books cited by Numbers, and in checking I occasionally noted important differences. For example, Numbers states (p. 85) that Price concluded that the “rapid degeneration after Babel, produce[d] not only Negroes and Mongolians, but perhaps apes as well, which he thought might be 'degenerate or hybridized men'” when Price actually stated,

> many arguments have been adduced to prove that man is a developed ape; yet not a single one of these arguments but would just as logically prove that the apes are degenerate or hybrid men. ... These present-day anthropoid apes may be just as much a product of modern conditions as are the Negroid or Mongolian types of mankind. And, if I were compelled to choose between saying that the apes are degenerate or hybrid men and the man is a developed ape, [I would choose the former].

Number claims, “there was a pausity of reputable scientists willing to defend special creationism” (p. 72) at the Scopes trial, but this is quite different than claiming that there was then a pausity of scientists who believed in special creation. Many declined to actively become involved, partially because they were so heavily committed to their own scientific work, and many realized that such involvement could jeopardize their careers or reputation. Many believed in special creation, but realized that they were not fluent enough with the literature to publicly defend it, even though there were convinced that their position was scientifically viable.

Charges of censorship by creationists, while common today, Numbers shows are not new —as far back as 1919 *Scientific American* “declined to publish a lengthy manuscript by creationist Price on, 'the largest problem in geology'” (p. 93). Interestingly, an article by

Price was published in a mainstream scientific journal, *The Pan-American Geologist* in 1937. “But when the journal folded two years later, some geologists privately attributed its demise to the editor's poor judgment in publishing Price” (p. 94). Another of many examples given is the “refusal of the Zoological Society of London to publish a scientific article by the English creationist Douglas Dewar (1875-1957)” (p. 94).

Although Numbers notes, referring to my work, *The Criterion* (1984) that my “compendium of alleged persecution often lacks...documentation” he himself provides more than adequate documentation for my conclusions, making clear the commonality of discrimination. Gentry at first naïvely hoped that he could discuss some of his creationist speculations relative to his research, but soon learned that if he did, his work would not be published. In a manuscript submitted to *Applied Physics Letters*, he noted the difficulty of reconciling his results with conventional views of the earth's crustal formation and suggest that the polonium halos were “more nearly in accord with a cosmological model which would envision an instantaneous fiat creation of the earth”. An alert referee spotted this “wild speculation” but nonetheless recommended that a revised version of the article be submitted to *Nature*, which eventually published the piece. By the time Gentry moved to Oakridge, he had already reported his empirical findings—minus their creationist interpretations—in some of the most prestigious science journals of the world, including *Science*, and he continued to do so into the early 1980s when the notoriety associated with his testimony at the Arkansas trial closed such doors and terminated his relationship with the Oakridge Laboratory. Unable to obtain public support for his research, he accepted the patronage of the Adventist baker and philanthropist R. Ellsworth McKee...maker of Little Debbie cookies and cakes (p. 253).

Although discrimination was certainly a problem, Numbers notes many cases of creationists who did manage to obtain degrees. Lammerts earned his doctorate in cytogenetics at the University of California-Berkeley, and although he engaged in many arguments “with fellow graduate students over the issue of evolution, he never experienced any discrimination because of his particular views” (p. 215). Numbers also sites the case of Richard M. Ritland, who, after receiving a master's at Oregon State in vertebrate zoology, completed a doctorate at Harvard under eminent vertebrate paleontologist Alfred S. Romer. He was successful partially because he wrote “a philosophically safe dissertation in comparative morphology and vertebrate paleontology, for which he received his Ph.D. degree in 1954” (p. 217).

To attack any one case in my compendium in no way negates the results and, indeed, my conclusions are almost identical to Numbers's. In summary, Numbers has gone further to be fair to the creationists than virtually any other critique (although McIver's work is excellent). Many of the cases that Numbers criticizes relate to obtaining degrees, which, although a problem, is far less so than denial of tenure, or employment termination. He notes that creationists “had good reason to be wary of discrimination” because “Otherwise sensitive college and university teachers ridicule creationist beliefs, and one professor at Iowa State University went so far as to recommend failing students in geology and biology courses who denied the truth of evolution or the great antiquity of

the earth." Numbers also sites a public opinion poll which "showed that well-educated Americans tolerated religious fundamentalists less than any other group. Fifteen percent of the respondents said that they would dislike having a fundamentalist move into the neighborhood" (p. 268).