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Andrews University

KENNETH A. STRAND

Ratzsch, Del. *The Battle of Beginnings: Why Neither Side Is Winning the Creation-Evolution Debate*. Downers Grove, IL: InterVarsity, 1996. 248 pp. \$14.99.

Del Ratzsch analyses the public debate between biblical creationists and naturalistic evolutionists in light of contemporary philosophy of science. He aims to sort out "misconstruals, philosophical confusion, logical missteps and various other snarls" that characterize the objections each side levels against the other (11), evaluating scientific arguments "only to the extent that they exhibit misunderstandings of theory or of philosophy of science" (11), and avoiding any extensive discussion of Scripture.

Stating at the outset, "It is not my aim to convince readers to accept any particular resolution of the issue, but rather to point out those things that should not convince one" (8), he directs attention to two main categories of mistakes: arguments against misperceived positions, and charges from each side claiming that the other side is "unscientific." The first half of the book therefore seeks to describe the history of erroneous criticisms against the positions of the creationists (largely from Ron Numbers, *The Creationists* [University of California Press, 1992]), and evolutionists (unfortunately perpetuating the common impression that evolutionism originated in eighteenth and nineteenth-century Europe, although his bibliography includes a definitive work on its earlier roots: Henry M. Morris, *The Long War Against God* [Grand Rapids: Baker, 1989]). The second half of the book explores the history of the philosophy of science and the illegitimacy of claims that either or both sides cannot properly be called "scientific." After a discussion of objections to theistic evolution, the book ends with a call for more understanding and communication rather than criticism.

Because he has amassed so many "misconstruals," providing us a handbook of improper objections, the tone is necessarily somewhat negative. The reader will find many double negative sentences with limiting qualifiers to make them logically valid (e.g., 147). Ratzsch does not waste time on fringe creationistic theories, and mercifully refrains from dwelling on the spirit of ridicule that pervades some creationist-evolutionist exchanges. There is an impressively long section of end notes (26 pp.) and a large bibliography (23 pp.), but no indices or appendices, and no tables, charts, diagrams or other illustrations. The reader may easily make his own timelines and comparison charts.

Surveying the history of science since the 1600's, Ratzsch points out that mankind has had to "learn from nature itself how to investigate nature" (103). The very definition of science has changed as the study of nature has deepened. Baconian inductivism sought to extract truth from nature directly, "free of any distorting human taint" (106), but so much of what science seeks to explain is not directly observable that the domain of science has had to be expanded to include the non-empirical.

Ratzsch describes the scientific process as a dynamic interaction among data,

theories, and "shaping principles," interacting and influencing one another (120-128). The source of the shaping principles (or "deep assumptions," 74), can be anything from subconscious philosophical suppositions to theological principles to political motivations or any other kind of insight or inspiration—in other words, worldview commitments (126). These non-empirical influences affect construction of theories, perceptions of data, and even the choice of what to include as data. Nevertheless, when a theory is tested empirically (by way of logically deduced predictions from the theory, design of experiments to test the predictions, observation and comparison of empirical results with the predictions, etc.), nature can impose constraints on both the theory and the assumptions behind it, and "teach us some things about how to do science—about our shaping principles . . . how to ask . . . and how to read the answers" (130).

He notes that the "two model approach" to interpreting nature's data concerns two worldviews (77). Biblical creationists view the world with Scripture providing the shaping principles, the basis of theories, insight for predictions, and cues as to which data to seek and how to perceive and evaluate the data. And, in his words, "there is nothing inherently or by definition irrational in doing that" (167). In contrast, for the evolutionist "material reality is self-existent, self-developed and self-governing from within itself" (77) and "materialists have no viable choice but to view the world through evolutionary spectacles of some sort, and their theorizing, assessment of evidence and other scientific procedures are not unaffected" (197). But nature itself sets constraints on which of the shaping principles are valid, regardless of which spectacles we wear. For example, many scientists today recognize that the complex interdependence of the DNA-RNA-protein system (in which every part depends upon the others for its construction) indicates that the origin of the system "cannot involve a series of small steps" (194), a fact which challenges the evolutionist's concept of gradual development. Hypotheses of theistic evolution may seem attractive, but biochemistry, physics, genetics, comparative physiology, paleontology etc. "impose corrective nudges" on all our theories (131), and can show us which deep assumptions may ultimately stand.

Ratzsch points out that both creationism and evolutionism are moving targets, and neither side seems to keep abreast of the complex changes in the other's (or their own) views or the shifting definitions of science and scientific methods. A large portion of the book describes historical changes in each position and documents examples of objections aimed at views which have been abandoned—creationists criticizing Lamarck's inevitable linear upward evolution (38-47) or Hutton's steady state uniformitarianism (47-53), and evolutionists assuming that creationists still claim fixity of species (86-90) or lack of order in the geological record (72-73). All these charges are ineffective in light of updated views (from observation of nature) on both sides.

In the midst of dismissals of popular objections on both sides, it appears that in Ratzsch's eyes almost no argument stands. His main implication seems to be that creationist and anti-creationist arguments are alike powerless—misdirected, inapplicable, inadequate, mistaken, irrelevant. Neither side is "winning" because neither side can refute the other. Each side misconstrues and falsely accuses the

other. Often they are not listening to each other, and perhaps cannot even fully comprehend one another's positions (118, 198). Also, although most people believe that genuine truths exist, no theory can be conclusively proved and "it is impossible to conclusively falsify any scientific theory by means of empirical data" because the confirmation or falsification process rests on many unverified theoretical assumptions (112). So where are we?

Although Darwin is clearly a personal hero for him, Ratzsch aims to be fair to both sides and largely succeeds. He remembers fundamentalists' "deep respect for reason, the mind and education" (7) and proper (biblical) science (57). Discussing the effect of religion on science, he acknowledges that Christians such as Newton, Maxwell, Boyle, Pasteur and Herschel were important to the development of modern science (166). The precept that Genesis should be understood literally and that it teaches what creationists think it does, is in his words, "not . . . either inherently improper or incoherent" (195).

I recommend chapters 6 and 7 which give a succinct description of creationist theory and responses to arguments against it. He covers well creationist's objections to extrapolating speciation to macroevolution (90), assertions that the second law of thermodynamics applies to the universe as a whole (a closed system) precluding cosmic evolution (92), and answers to the charge that "appearance of age" in the newly created world constituted deceit on the part of God: "How might a Creator prevent scientific creatures of that universe from being misled? One obvious way would be simply to tell them how old things really were. And that, claim creationists, is exactly what God has done in Scripture" (97).

In his summary of creationist theory, he comments on some of the major advances in creation science (81, 174), and notes that creationists have increased the technical depth of their research in the last few decades and continue to pursue the "meticulous detail work that a genuinely scientific creationism requires" (84). Nevertheless, he is drawn to Darwinian theory—although not to "anti-religious Darwinists" (59). He hints at a theistic evolutionary scenario, picturing the earth anciently "infected" with life from elsewhere (195) which subsequently evolves by apparently naturalistic processes that are unobtrusively guided (187). This scenario (which would be rejected by most evolutionists as a 'god of the gaps' conjecture and by most creationists because mutations, even if guided, would not be expected to produce new kinds of organisms) preserves for him the evolutionary claims that all life came from one common ancestor and that the fossil record documents long ages of evolution. He notes that there are serious Scriptural objections to this view of origins, but explicitly avoids discussing them (190, 195, 197).

In the preface, the author tells us, "I still do not know what the proper resolution to the creation-evolution dispute is" (8). This accurately reflects the wavering condition of our culture and a prevailing expectation that theistic evolutionism will 'win'. The increasingly popular post-darwinian naturalistic evolutionary theories (not addressed in this book) tend in this same direction, toward a unified non-biblical religio-scientific worldview.

The book's title, *Battle of Beginnings*, might suggest the spiritual warfare that surrounds this controversy. Although the author concentrates almost exclusively upon human argumentation, the continuing conflict is apparent. Creationists and

evolutionists alike will most likely continue to use many of their same arguments, flawed or not. People are rarely convinced by argument anyway. Deep convictions come through insight from God's Spirit—or from other spirits. When discussing irreconcilable worldview differences, it is wise to be clear on the basic precepts on each side (scriptural or not), to evaluate reasons they are accepted, to recognize how they shape perception of the data, and to let the Holy Spirit do the convincing.

Ratzsch did not intend to explicate Scripture. Nevertheless, in my view, his three main points effectively illustrate parts of Romans 1:18-25: God's invisible qualities (including Creatorship) are increasingly revealed as our study of nature deepens; critics on both sides of the debate, claiming to be wise in their arguments, have often become fools; and many have exchanged the truth of God for a lie ascribing creatorship to the created things themselves rather than to their Creator.

Of special interest to *AUSS* because of its connection with the Seventh-day Adventist Church, is the respect, yet disregard, given to Adventist scientists, Geoscience Research Institute, and their publications. The author credits Seventh-day Adventism with beginning the modern creationist movement (10), and recounts the career of the Adventist George McCready Price (1870-1963) as an "early-twentieth century creationist hero . . . whose views grew out of Seventh-day Adventist (SDA) theology" (62).

In a section entitled Return of Flood Geology (66), Ratzsch mentions parenthetically, "(In 1958 the SDA had already founded its own creationist think tank—the Geoscience Research Institute—which has probably done the best actual science within the creationist movement.)" Also, while describing (84) the "newly emerging upper tier of the creationist movement . . . undertaking to do the meticulous detail work that a genuinely scientific creationism requires," he notes, again parenthetically, "(The Geoscience Research Institute, which over many years has done much of the really legitimate creationist-related science, remains curiously invisible outside Seventh-day Adventist circles.)"

This inconspicuousness is perhaps the main reason he makes no further mention of Geoscience Research Institute or its scientists, and cites no GRI publications in his extensive bibliography: he focuses on popular arguments, and Adventist scientists have not participated in the popular debates. The numerous scientific papers published by Adventist scientists are not recognized as "creation research," because creationist implications must be deleted for the peer review process. Adventist scientists have not pressed their creationist views into the popular media.

Director of the Nature Center
Leoni Meadows Retreat
Grizzly Flats, CA 95636

KAREN G. JENSEN

Shaw, Mark. *The Kingdom of God in Africa. A Short History of African Christianity*. Grand Rapids: Baker, 1996. 328 pp. \$19.99.

With the publication of *The Kingdom of God in Africa*, Mark Shaw follows the lead of Elizabeth Isichei, Lamin Sanneh, and John Baur by providing another