## **BOOK REVIEW**

## If You Want to Defend Evolution, Read this Book

Evolution vs. Creationism: An Introduction, 2nd edition, by Eugenie C. Scott. Westport, CT: Greenwood Press, 2009. Pp. xxvi+352. H/b \$49.95

Randy Moore

Published online: 23 January 2010

© Springer Science+Business Media, LLC 2010

Most readers of this journal have grown accustomed to hearing about opposition to evolution. This opposition appears in many forms, including public opinion polls showing that most people reject evolution, biology teachers who question evolution and/or teach creationism, school boards and state legislators who promote creationism, and religious activists who condemn evolution while marketing creationism-based books, DVDs, and museums—virtually all of which claim that evolution is unfounded and, in some cases, destructive and evil. There seems to be no end to the public's opposition to the idea that is the foundation of modern biology.

The creationism business is booming. For example, the Institute for Creation Research has millions of its books in print, and the Creation Museum, which the antievolution organization Answers in Genesis opened near Cincinnati, Ohio, in 2007, will soon host its *millionth* visitor. Even Carl Baugh's Creation Evidence Museum near tiny Glen Rose, Texas, has moved its young-Earth "Creation in Symphony" message (complete with fossilized human footprints alongside dinosaur footprints in Cretaceous sediments) from its creaking doublewide trailer to a fancy new, two-story building. Clearly, the promoters of creationism and the supernatural have done a better job of defending and promoting their ideas than have the advocates of evolution. If you're tired of this disparity and believe that evolution is an idea worth defending, anthropologist Eugenie Scott has written a book that you'll want to read: the second edition of Evolution vs. Creationism: An Introduction.

R. Moore (🖂) Biology Program, University of Minnesota, MCB 3-104, 420 Washington Ave. SE, Minneapolis, MN 55455, USA e-mail: RMoore@umn.edu



The second edition of Evolution vs. Creationism is a significant improvement of an already excellent book. In the second edition of Evolution vs. Creationism: An Introduction. Scott—the Executive Director of the National Center for Science Education—provides a concise overview of the evolution-creationism controversy while giving readers tools they can use to defend evolution. There are more than 70 pages of new and revised material, including expanded discussions of intelligent design (ID), the alleged "evidence against evolution," recent challenges by creationists, and how the controversy is treated by the media. Scott also discusses several of the long-refuted claims of creationists. Want to know how to refute creationists' claims about radiometric dating and a young Earth? A worldwide flood? Charles Darwin's deathbed refutation of evolution? Evolution and Hitler? You'll find answers to these and other questions in Scott's thorough and lucid book.

Evolution vs. Creationism has three major sections: (1) Science, Evolution, Religion, and Creationism (e.g., the nature of science and evolutionary theory); (2) History of the Evolution-Creationism Controversy (e.g., ideas before Charles Darwin, creation science, neocreationism, and ID); and (3) Selections from the Literature (e.g., cosmology and geology, legal and educational issues, the media, and public opinion). The book's introduction discusses "The Pillars of Creationism" (e.g., that evolution is a theory in crisis). There is also a new foreword by Judge John E. Jones III, the judge who issued the Kitzmiller et al. v. Dover Area School District decision (which rejected the scientific validity of ID and condemned the personal integrity and motives of the Dover school board). Scott's book, which also includes references and an index, is aimed primarily at advanced high school students and undergraduates, but will be valuable to anyone interested in the evolutioncreationism controversy.

Although Scott's entire book is interesting and useful. everyone should read "The Creationism/Evolution Continuum" (pp. 63–75). This discussion, and the accompanying artwork, dispels the common notion that the relationship between evolution and the many versions of Christian creationism is a dichotomy (i.e., that a person is either a creationism or an evolutionist). Scott also describes the extent to which each major type of Christian creationism embraces science versus the religious claims of the Bible. As has been true throughout modern history, many people strive mightily to reconcile science with their religious beliefs. Some of their rationales are astounding intellectual contortions (e.g., the "appearance of age" claim that underlies some versions of young-Earth creationism), whereas others involve attributing all of science to a deity (e.g., that "theistic evolution" has been "God's way" of diversifying life). This section of Evolution vs. Creationism is the most impressive part of Scott's book. Make copies of these pages and give them to your students, friends, and colleagues.

Scott also does an exceptionally good job with "the problem of design and purpose" (p. 88). Most readers of this journal will be familiar with the famous watch-based analogy that William Paley used in Natural Theology, Or, Evidence of the Existence and Attributes of the Deity Collected from the Appearances of Nature (1802) to promote the argument from design. Although the use of timekeeping analogies to advocate the argument from design were proposed long before Paley (e.g., John Ray had earlier used an analogy based on a clock to argue for natural theology, much like Cicero had used an analogy involving a sundial to make the same argument), the argument presented by Paley remains a classic exposition of the argument from design. Paley's idea was later developed in the eight Bridgewater Treatises (1883-1834), which were the century's most thorough attempt at establishing natural theology. Although the argument from design is a nonscientific belief that appeals to many people, biologists have long known of countless examples of odd "it barely works" structures that do not appear to reflect an omnipotent, benevolent god or, for that matter, an overly intelligent designer.

There's another important point here worth noting. In Paley's day, advocates of the argument from design stated explicitly that they sought scientific evidence from nature to demonstrate the character and goodness of God-for example, the Bridgewater Treatises were commissioned to show "the power, wisdom, and goodness of God as manifested in the Creation." The modern ID movement lacks such candor. Indeed, although ID is a version of the argument from design, the modern ID movement is little more than a political and marketing tool to discredit evolution while promoting particular religious views in school curricula. Paley would probably have no more regard for the motives and integrity of most modern ID advocates than Judge John Jones had for the motives and integrity of members of the Dover school board (some of whom lied under oath). These and other issues are covered expertly in Scott's book.

Everyone should also note that most of the proponents of ID creationism—for example, Stephen Meyer, Percival Davis, and Jonathan Wells—refused to give Scott permission to reproduce their readily available works. This rudeness is not unique to Scott's request; I've had the same experience with several creationists. Such classless, unprofessional behavior betrays these creationists' claims that they want a fair and objective discussion of their "theory." To learn which creationists behaved liked courteous professionals, see p. xviii of Scott's book.

There are several books that do an excellent job of discussing specific aspects of the evolution—creationism controversy. However, no book does a better job than *Evolution vs. Creationism* of covering with the *entire* evolution—creationism controversy. Scott covers it all, including "irreducible complexity" and microevolution vs. macroevolution (Chapter 9), Haeckel's embryos and the origin of "information" in DNA (Chapter 10), peppered moths and claims about "fairness" (Chapter 11), and Darwin, eugenics, and Hitler (Chapter 12). Scott's book has no weaknesses; even readers with only a passing interest in the evolution—creationism controversy will find the book interesting and useful.

Evolution is one of the greatest ideas of modern times. If you want to defend evolution, read *Evolution vs. Creationism*.

