

LITERATURE REVIEWS

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AN ARGUMENT ABOUT SCIENCE

THE ORIGIN OF SPECIES REVISITED: THE THEORIES OF EVOLUTION AND OF ABRUPT APPEARANCE. 1987-1989. Wendell R. Bird. NY: Philosophical Library. 2 vol.s. Vol. 1: 551 + xvi p; Vol. 2: 563 + xix p. Cloth, \$65.00.

Reviewed by L. James Gibson, Geoscience Research Institute

Wendell Bird is an attorney who played a central role in the Supreme Court case surrounding the Louisiana law requiring “balanced-treatment” of creation-science and evolution in public schools. In these two volumes, Bird reviews some of the implications of the Court’s decision, including its definitions of science and religion as they relate to theories of origins in general and creationism and evolution in particular. The central purpose of the book seems to be to establish a non-religious theory of origins that is compatible with Christianity. Bird names this theory “the theory of abrupt appearance.” The focus of Volume 1 is the scientific evidence concerning origins. Volume 2 addresses the legal definitions of science and religion, the relationship of the theories of abrupt appearance and evolution to these definitions, and the constitutionality of teaching both theories in the public schools.

Two features of the books stand out quickly as one looks through them. The first unusual feature is the extremely large quantity of footnotes. Volume 1 contains more than 2600 footnotes that occupy more than 25% of the text. In addition to this, a major portion of each chapter consists of quoted statements linked together to form an argument. In short, the documentation is massive. The second unusual feature of the book is the presence of asterisks by the names of nearly all the scientists cited. Bird uses an asterisk to indicate that the person quoted does not advocate the theory of abrupt appearance and probably would not agree with Bird’s conclusions. A warning to that effect is written at the bottom

of the first page of every chapter. This may be an attempt to avoid the criticism sometimes levelled at critics of evolution: that quotations are sometimes taken out of context and used to misrepresent the positions of the authors of those statements. It also has the effect of impressing on the reader that many of the most important objections to the theory of evolution come from those who accept much of the theory.

Volume 1 contains eight chapters. The first is introductory, and the last is a summary. The remaining six chapters are actually pairs of arguments concerning three points: the origin of biological diversity, the origin of life, and the origin of the universe. Each topic is addressed by two chapters. The first chapter of each pair presents empirical evidence in favor of the theory of abrupt appearance; the second presents the conjectural nature of evolutionary theory on the point under consideration. Each chapter begins with an introduction and ends with a summary. By the time one has read the introductory chapter, each chapter with its introduction and summary, and the summary chapter, he should have become thoroughly exposed to the arguments presented.

In Chapter 1, Bird attempts to describe the theory of abrupt appearance in scientific terms. He is very careful to emphasize the distinction between the theory of abrupt appearance and any particular religious belief in a creator or God. Chapter 2 is an argument that the scientific evidence suggests the possibility of abrupt appearance of the various living lineages. The familiar characteristics of gaps, stasis in the fossil record, and abrupt appearances are described. Information content, probability, limits to change, and taxonomy are all used to argue for abrupt appearance. Chapter 3 describes some of the problems with the evolutionary theory of continuity among living organisms. The failure of any plausible theory of macroevolution and the gaps among natural groups are cited as evidence against evolution. At over a hundred pages, this chapter seems too long.

Chapters 4 and 5 respectively advocate the abrupt appearance of life and refute the evolutionary explanation for the origin of life. Information theory, laws of probability, thermodynamics, and various biochemical difficulties are discussed. The results of laboratory attempts to test the hypothesis of abiogenesis are described and evaluated.

Chapters 6 and 7 respectively describe evidence for the abrupt appearance of the universe, and evidence against the evolutionary hypothesis of the big bang. Among the arguments presented are the presence of hydrogen (indicating that the universe is not infinite in

age), the great information content of the structure of the universe, the uneven distribution of matter in the universe, the presence of radiohaloes in granitic rocks, and the discordant red shifts of associated galaxies.

Volume 2 compares the theories of evolution and abrupt appearance with respect to their scientific basis, their religious or non-religious nature, their educational value, and the constitutionality of their presentation in public schools.

In Chapter 9, Bird discusses some of the difficulties in defining science precisely. Judge William R. Overton's decision in the McLean case involving the Arkansas "balanced-treatment" act is especially singled out for criticism. Several anti-creationist scientists and philosophers are quoted in support of Bird's position that the judge's definition of science was at best inaccurate, and at worst deliberately contrived to exclude creationism. In Chapter 10, Bird defends the proposition that regardless of which definition of science is used, both creation and evolution meet the definition equally. Chapter 11 is a short discourse on whether abrupt appearance, creation, or evolution are the only scientific alternatives to explain the origin of the universe and life. Bird concludes that they are the only alternatives, but that the theory of abrupt appearance does not depend upon this fact for its support.

In Chapters 12-15 the religious or non-religious nature of the theories of abrupt appearance and evolution is discussed. Chapter 12 contains a brief discussion of the definition of religion. In Chapter 13, Bird argues that: a) the term "creation" is frequently used in a non-religious sense, b) reference to a creator is not required by either theory under discussion, c) the two theories are parallel in their sometime-reference to a creator, d) reference to a creator does not necessarily imply any particular religious belief about that creator, and e) both theories are linked to world views that may be compatible with various religious beliefs. In Chapter 14, Bird argues that the consistency of a theory with a religion does not make the theory religious, and that both theories of abrupt appearance and evolution are parallel in being consistent with religious beliefs, although neither theory is itself religious in nature. In Chapter 15, Bird shows that *both* theories have been supported by religious as well as scientific arguments, and that creation has been supported by scientific arguments more often than by theological arguments. In Chapter 16, Bird argues that evolutionists have been more active politically in repressing the teaching of creation than

creationists have been in promoting it, with many creationists even not supporting the mandatory teaching of creationism in the public schools.

Chapters 17-18 evaluate the educational effects of considering the theory of abrupt appearance together with the theory of evolution. In Chapter 17, Bird argues that consideration of alternative hypotheses is educationally beneficial in that it teaches students to analyze and make comparisons. Other benefits derive from the possibility that minority viewpoints may someday be recognized to be correct, and that exposure to various views should increase respect for the views of others. Bird points out in Chapter 18 that a widespread anti-creationist and anti-discontinuitist bias exists within the evolutionary community. This bias essentially prevents those with discontinuitist views from attaining important positions in the scientific community or from presenting their views in scientific journals. In some cases, such discrimination influences the acceptance of students into graduate programs, or the success of the students in completing their studies.

Chapters 19 and 20 consider the constitutionality of teaching alternative theories of origins in the public schools. In Chapter 19, Bird discusses the rights of students to learn and the rights of teachers to present alternative viewpoints. Several court decisions are cited in support. In Chapter 20, Bird argues that the teaching of creationism could be done in such a way that it would not violate the U.S. Constitution, and that Judge Overton's opinion was seriously flawed in the Arkansas balanced-treatment act. Moreover, teaching the theory of abrupt appearance would not violate the U.S. Constitution, but would promote student welfare by presenting alternative views and developing critical thinking.

The final chapter of the book summarizes the arguments of the second volume.

Bird's presentation of the theory of abrupt appearance is beneficial in that it: a) maintains the U.S. Constitution's requirement for separation of church and state, b) provides alternative views of origins for children, and c) demonstrates the nature of scientific inquiry through use of multiple hypotheses. If such an approach to origins could be implemented in public-school science classes, it would enhance the ability of children to make critical comparisons and to think for themselves.