

## REVIEW

*Darwin on Trial*: by PHILLIP E. JOHNSON. P. 195. Washington, D.C., 1991 (Regnery Gateway, \$19.95).—This clearly-written book is a brief against strict classical Darwinism—“fully naturalistic evolution, involving chance mechanisms guided by natural selection”—by an articulate Berkeley law professor who is speaking from his personal perspective as an old-earth creationist—a person who believes “that the earth is billions of years old and that simple forms of life evolved gradually to become more complex forms including humans . . . [and] . . . that a supernatural Creator not only initiated this process but in some meaningful sense *controls* it in furtherance of a purpose.”

Johnson accepts the fact that the biosphere has changed through time but is extremely uncomfortable with the idea that we might live in a contingent, continually changing universe in which we are a part of the process of change rather than the goal. Thus, he attempts to show that all purely naturalistic arguments brought forward to explain the fact of change in the biosphere are flawed. His extensive study of the literature is reflected in 33 pages of research notes at the end of the book.

Individual chapters attack (A) natural selection (in the narrow frame of “survival of the fittest”); (B) mutation as the sole origin of novel structures leading to new species; (C) the fossil record as evidence for the continuum of change (by asking, where are the transitional forms and common ancestors predicted by Darwin?, and pointing out, for example, that *Archaeopteryx* was really from an evolutionary side-branch that did not give rise directly to modern birds.); (D) molecular biology as proof of evolutionary relationships (conceding that it may demonstrate degrees of similarity and difference between organisms, but “it does not tell us how either the similarities or the dissimilarities came to exist”); and (E) the origin of life by a natural chemical process (“ . . . no theory has obtained any substantial experimental confirmation”). Concluding chapters review (A) the rules of science ( Johnson argues that a reliance on “natural law” unduly biases scientists against certain kinds of inference and hence unfairly excludes the possibility of a Creator or some form of Divine intervention; (B) Darwinist religion (“Darwinist evolution is an imaginative story about who we are and where we came from, which is to say it is a creation myth.”); (C) Johnson’s belief that Darwinist education is prejudicial (“ . . . teaching about evolution does not mean encouraging immature minds—or mature ones, for that matter—to think about unacceptable possibilities.”); and (D) science and pseudoscience (a support for Popperian philosophy: “When analyzed by Popper’s principles, the examples Darwinists cite as confirmation look more like falsification.”).

The principal novelty of this book is its author, a legal scholar from a major American university. Such credentials will win wide recognition among creationists and may turn the heads of a few scientists as well. From his perspective as a lawyer, the author argues that the evidence favoring evolution by natural selection is largely circumstantial and hence would not stand up under cross-examination in a court of law.

Perhaps he is right; a skilled defense lawyer (or a persistent philosopher) can easily poke technical holes in almost any argument that relies heavily on indirect evidence and that is constrained to being described by words whose meanings may often be imprecise. The thrust of his belief is that from this legalistic perspective, evolution through descent with modification from common ancestors "is a hypothesis, not a fact, no matter how strongly it appeals to a materialist's common sense."

This book is not likely to change many minds, but it does highlight how theories supported largely by indirect evidence may be open to criticism. It is a thorough articulation of the old-earth creationist objections to a purely materialistic origin and diversification of life. Although these objections have been raised before by creationists, they are laid out clearly here and might provide a useful focus for a graduate seminar in biology or paleobiology on what scientists accept as evidence and why.

The author ends the book on a note of moderation, "Exposing Darwinism to possible falsification would not imply support for any other theory, certainly not any pseudoscientific theory based upon a religious dogma." In his moderation, though, he reveals his willingness to live in a world with no theory about the diversification of life at all, whether scientific, creationist, or otherwise, in preference to being forced to choose between existing theories. Few are likely to accept the intellectual vacuum Johnson recommends, plodding serenely along collecting their data while they wait for a wholly new hypothesis to rise like a phoenix from the ashes of those consigned to cremation on legal grounds.

As with all such major controversies, perhaps the shortcomings Johnson raises about the conventional theory of evolution merit a dispassionate search for a new paradigm, one that doesn't rely so heavily on the accumulation of many mutations each having small effect. Maybe the ongoing revolution in molecular biology will reveal wholly new sources of evolutionary raw material on which such a paradigm might be erected. Some of us in the earth sciences still remember being raised on a stabilist paradigm—maybe there's a message there somewhere, though probably not the one intended by the author.

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