

Thirdly, in a chapter coauthored with Patricia Kitcher (also a philosopher), the religious aspects of the controversy are distinguished from the scientific. It is argued that scientific creationism rests on the fundamentalist doctrine that a literal reading of Genesis clearly rules out evolution as a possible belief for true Christians. The point is made that this is only one minority view (even among fundamentalists!). It is worth realizing that there are religious arguments on both sides of the creationism issue, and scientists would profit by interacting with theologians who oppose the fundamentalist movement. (What does a "literal" reading of the Bible mean, must it be in Hebrew? Which Bible do Scientific Creationists read? From what source do they derive their authority to say what constitutes a literal reading?)

I found three drawbacks to this generally excellent book. The first is purely a matter of format. The book is billed as a "manual for intellectual self-defense." Its layout, however is more conducive to a cover to cover reading. In order to be useful as a manual, its small subheadings should be in boldface, and crucial arguments should be set off from the main text in some fashion. Likewise, more and clearer tables and figures would enhance the utility of this book as a manual, and would help the exposition of scientific topics for the lay reader. A glossary and synoptic table of contents would also facilitate rapid entry into the text. These alterations would certainly detract from the stylish, essay quality of the text, but the intended use of this book must be taken seriously; the scientific creationists have considerable debating skills, and their overbearing rhetoric can only be fought effectively by rapid, reasoned repartees and counterattacks.

It seems churlish to bring up my other complaints because a book that does so much so well ought not to be faulted for its few omissions. However, it seems to me important to directly address the place of scientific creationism/fundamentalism in the religious community in order to give scientists a better sense of the other front on which this war is waged. In this regard, the last chapter was something of a disappointment, giving only a sketch of how the fundamentalist problem can be avoided, while keeping religion and science compatible. The other important issue which is skirted is who may judge science. Much of this book, and indeed the credibility of science, hangs on the judgment that something is good, bad, or pseudo-science, but nowhere is the tricky issue of who may do the judging considered, nor is the underlying concern that science is elitist addressed. This is the heart of the political issue that the creationists raise.

An important lesson of the book is that scientific creationism fails as science and therefore should not be taught in high school science classes. Scientific Creationism rests on a fundamentalist dogma that pits a literal reading of the Bible against the evidence of our experience and scientific theories about nature. Kitcher rightly perceives the movement as an attack on all science, not just a few specialties. Since creationist views are masqueraded as science, and because some of their proponents have scientific credentials, the scientific community has a responsibility to educate about its methods and theories as well as its results, so as to help the public understand why scientific creationism is not worthy of anyone's attention. This burden is eased considerably by such tools as Kitcher provides, and scientists should freely seek out philosophers, theologians, and historians in fulfilling this responsibility.

The greatest evolutionary biologist understood the challenge of creationism, and did more than any scientist to bring its inadequacies to the attention of the public. "It has often and confidently been asserted, that man's origin can never be known: but ignorance more frequently begets confidence than does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science." (Darwin, *Descent of Man*) It is up to scientists to inform the public of what they know and how they come to know it, and to inform themselves about the creationist controversy and how best to participate. Abusing Science is an excellent place to start.