LITERATURE REVIEWS

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UNDERSTANDING THE AGENDA

Teaching About Scientific Origins: Taking Account of Creationism. Leslie S. Jones, Michael J. Reiss, editors. 2007. NY: Peter Lang Publishing. 217 p. Paper, \$29.95

Lee Davidson, EdD Chair, Teaching, Learning, & Curriculum, School of Education, Andrews University

Teaching about Scientific Origins provides science teachers with a strategy for teaching evolutionary science without creating too much resistance from students and parents. This strategy is summarized in the following quote: "Although biology teachers need to respect the beliefs of religious students, they need also to attempt to gently and firmly guide students to see that whether or not evolution has occurred is not debated among scientists" (p 151). While respect for religion is given lip service, the aim seems to be to find a way to logically move students from a belief in creation to an understanding of, if not belief in, evolution. Repeatedly the bottom line for most of the authors is that evolution has occurred and there is no need to debate this fact. Only *how* it occurred remains to be figured out. The following quote from Ruse, on page 90 illustrates this.

- *Q:* You say that scientists agree that evolution happened. Why is that?
- A: Because the evidence is absolutely overwhelming. It convinces the unbiased observer beyond any reasonable doubt...
- *Q:* Do scientists generally agree now about how evolution happened?
- A: No, not at all. With respect to this issue of how evolution happened there is still much debate.

The one exception to this emphasis on separating students from their creationist beliefs is the chapter by Shaikh Abdul Mabud, Director General of the Islamic Academy in Cambridge. His well-documented analysis and critique of evolutionary claims makes this chapter a must read. Mabud points out that what the other authors accept without question has widely recognized problems for which there is no known solution. On page 98 he explores the topic of homology. "Darwin defines homology as the 'relationship between parts that results from their development from corresponding embryonic parts' (Darwin 1859, p 492)." While this argument is often heard, structures that are considered to be homologous in adult vertebrates often have different embryonic origins (p 98).

Mabud also questions the assumption that anyone who doesn't accept the theory of evolution is a creationist, pointing out that there are hundreds of non-creationist scientists who have not accepted the theory of evolution. The other authors in this book never make mention of this fact, but it seems reasonable that science students should be made aware of this (p 102-103).

One aspect of the controversy, which is brought out several times, is that "a large number of religious traditions find it reasonable to reconcile scientific evolution with religion." (p 2) The fact that evolution is accepted by some Christian religions may cause confusion in students whose Christianity leads them to embrace the Biblical creation account. This emphasizes the fact that students must be well grounded in what they believe before entering a field of study where their beliefs are not respected.

A quote of Abraham Lincoln used by David F. Jackson may be applicable to this debate. "Both may be, and one must be, wrong. God cannot be for and against the same thing at the same time...it is quite possible that God's purpose is something different from the purpose of either party" (p 167). He uses the quote to make the point that "there is an irresolvable intellectual (and perhaps also emotional) conflict between evolution and creationism, or more broadly between science and religion as ways of knowing" (p 168).

The editors of this collection of essays are reasonably qualified to comment on creation and evolution. Michael J. Reiss has a Ph.D. in evolutionary biology and population genetics, and is a priest in the Church of England. Until recently, he served as education director for the Royal Society, but resigned after being attacked for his moderate views about teaching evolution and his willingness to discuss questions raised by proponents of creationism and intelligent design.¹ His co-editor, Leslie Jones, is also a university-level science educator; and both have published peer-reviewed science articles, but neither has specifically published on the evolution/creation debate.

Michael J. Reiss in his concluding chapter takes the position that the nature of the controversy should be explored even in public schools. He suggests role-play activities for students (p 206) so that they can explore each of the positions that are taken in regards to evolution. For students in public schools, this seems like a position that could be taken to help students understand each other without being so divisive. It also seems like an activity that could be undertaken in a church school to help students understand why people would not believe in creationism. I was glad to finally get to this chapter and see that there is a position that seeks understanding and not just asserting that only unscientific people believe in creationism.

While I think most creationists would see the unsupported assumptions that are made, the book is one that is worth reading because it reveals evolutionary scientists' educational agenda and where they agree or disagree on how evolution science should be presented in schools. Both Darwinists and creationists have an agenda. Knowing the Darwinists' agenda might help creationist teachers know how and what they need to present.

Endnotes

1. McKie R. 2008. Creationism call divides Royal Society. The Observer, September 14, 2008. News section p 3.