

## SECULARISM & SCIENCE IN THE 21ST CENTURY

edited by Ariela Keysar and  
Barry A Kosmin  
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Reviewed by  
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The Institute for the Study of Secularism in Society and Culture (ISSSC) at Hartford's Trinity College engages in a wide spectrum of scholarly activities in the areas implied in its name. Among these activities, a workshop on science education and secular values was held in May 2007. This collection of essays (also available for download free of charge via <http://www.trincoll.edu/secularism/institute>) though not a conference proceedings, clearly grew out of that workshop.

The eleven essays in the volume address the warfare against science — and particularly against science education — waged from both the left and the right. I am not sure that this was the main intent of the editors, but the issue emerges clearly. The essays are divided and ordered — rather arbitrarily, I think — into three related areas: the evolution-creation conflict, teaching science, and scientific literacy and public policy.

Jon Miller and Robert Pennock set the stage in the first essay. They present a summary of surveys, mostly by Miller and his associates, of public attitudes toward science, technology, and religion, with special emphasis on evolution. There is nothing surprising here: Americans think well of science, and see at least potential conflict between science and faith. They accept or reject evolution about half and half, with more rejecters than in any other country except Turkey. This the authors attribute to minimal knowledge of both the facts and the methods of the sciences — a view that is far from new. In their conclusion, they argue “[The public] need to know how the different sciences are interconnected in such a way that one may not simply choose to disbelieve some particular scientific conclusion in isolation” (p 30). Few will disagree.

The second essay, Daniel Blackburn's “The creationist attack on science and secular society,” gives a very brief history of creationism since the 1925 Scopes trial. Most significantly, Blackburn notes that creationism is not an isolated movement. Rather, it “can be seen as the vanguard of a theocratic movement, and its attack on public school curricula part of an explicit assault on secular society, free inquiry, and academic freedom ... the most public manifestation

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of a broad-based and well-financed effort to replace secular society with a theocratic state" (p 44).

The first essay in Part II is William Cobern's "The competing influence of secularism and religion on science education in a secular society." It amounts to an exposition of a Religious Right position on education, thinly veiled as middle-of-the-road for its perceived audience. Predictably, Cobern begins with an account of the decay of traditional morality: "There were the Kinsey Institute reports, ... *Playboy* appeared on the newsstands everywhere, ... sex education in the public schools became a foregone conclusion. ... *Engel v Vitale* (1962) and *Abington v Schempp* (1963) ended legal sponsorship of prayer and Bible devotionals. And court-ordered busing for school desegregation in the late 1960s severely weakened the local control of schools" (p 91-2).

Cobern reserves his real venom for Richard Dawkins and the authors of similar best-sellers, such as Daniel Dennett and Sam Harris. They are "in the throes of apoplexy" because atheism has not swept the country, and their books are "hysterical pleadings." Cobern's dilemma lies in his departure from most of his coreligionists in his adherence to real science and to evolution in particular. By linking evolution to atheism, he argues, Dawkins and others dispose the broad middle of religious Americans to creationism.

Using a term mined from the works of Paul Tillich, Cobern redefines religion, generalizing it to mean "ultimate concern." It follows that *everyone* — Dawkins included — is religious. Having thus defined religion into meaninglessness, Cobern argues that Christians can find a congenial meeting ground with others in what he calls methodological secularism. This he distinguishes from philosophical secularism, which, I suppose, is the fractious stance of Dawkins.

From all this, Cobern extracts four rules for teaching science: Teach science, not scientism; teach for sound understanding, not belief; teach the evidence; and give students time to explore their own ideas. None of these ideas is novel or controversial, and none really requires Cobern's peevish preliminaries for its genesis.

David Henderson's essay, "Implementing methodological secularism," merely expands on Cobern's, and needs no discussion here.

Philosopher Austin Dacey proposes a counterargument to Cobern's and Henderson's jeremiads. He argues, in oddly tentative terms, that Dawkins and others may actually soften the science-religion conflict by defining an opposite extreme to creationism. Given these extremes, the middle, where science and religion are in harmony, may be seen as such by the general public. This he calls the Dawkins Effect.

Biochemist Juan Antonio Aguilera Mochón presents a Spanish perspective in his essay. In Spanish schools, "religion is taught alongside science as part of the general curriculum" (p 137). Religion teaches the possibility of miracles — supernatural interventions in the natural world. As Victor Stenger did in his *God: The Failed Hypothesis* (Amherst [NY]: Prometheus, 2007), Aguilera argues that this leads to inevitable conflict. "Religious instructors ... very rarely admit that evolution was and is a purely natural process. ... Therefore, most Spanish children learn in school to make the two subjects and approaches compatible through a variety of ways of 'double thinking' ... this confusing situation is not unique to Spain" (p 147). Aguilera concludes, "[A]n indoctrination that is based on faith and belief and miracles is incompatible with a scientific education that is based on evidence and critical thinking" (p 147).

In Part III, agricultural ethicist Jeffrey Burkhardt takes a postmodernist, "left-wing" position. With an ill-concealed antipathy for what he calls the "Science Establishment," Burkhardt makes a series of questionable arguments. One is that the apparent unity of the sciences and their methodologies is illusory; that "what science really is is a collection of disparate epistemic and moral cultures ..." (p 164). Next, he argues that scientific literacy is a chimera. And in the spirit of true postmodern relativism he concludes that "A modernist believer in Truth and The Good must respect the right of others to believe in Creationism, astrology, Scientology, and the like, even if these are all — scientifically speaking — wrong" (p 169).

In their essay, Barry Kosmin and Juhem Navarro-Rivera argue quite the opposite: "[C]ontrary to Burkhardt's opinion, the goal of science education is ... to have a rational public that understands, at a basic level, the costs and benefits of implementing such policies" (p 181). The antiscientific stances of both the

postmodern left and the religious right are neatly summarized thus:

[The concept of] science as a common good embodying value-neutral knowledge has come to be disputed by certain communities that feel threatened by the implications of scientific research for their own world-views. In the academy, a fashionable relativist and postcolonial outlook belittles the achievements of science and instead values 'local knowledge' grounded in indigenous or ancient conceptual categories. More importantly, science had come under challenge from a resurgent religious fundamentalism, which above all seeks to protect young people from being taught scientific ideas that seem to threaten religious beliefs. (p 176)

Taken as a whole, this book does not appear to break any new ground. It does present arguments for and against teaching science unfettered by ideology and does so at one remove from the specifics of arguments over creationism, stem-cell research, global warming, and so on. But although I surely wish ISSSC success in its endeavors, I don't see much to attract the non-specialist reader.

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