

## EVOLUTIONISM AND CREATIONISM: ONLY ONE IS SCIENCE

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On January 3, the National Academy of Science (NAS)—in collaboration with the Institute of Medicine (IOM)—released *Science, Evolution, and Creationism*, a book length state of the theory of evolution address. This is the third time that the NAS has issued such a statement, the first of which was in 1984, the second in 1999. The purpose of the report is twofold: (1) to give a broad and current description and evaluation of the theory of evolution; (2) to bolster the case of those educators who still have to fight against the intrusion of creationism (or its stalking horse, intelligent design) into our science textbooks.

One would have thought that by now, the felt need to fend off the imperialistic specter of creationism would have dissipated. That it has not is a kind of perverse tribute to the combination of ignorance and timorousness that pervades too many school boards and the educational bureaucrats whom they superintend. Too often, school boards and school system administrators can be cowed into submission by anyone who confronts them with imperious arrogance, however ill-informed.

The NAS account of evolution is valuable in its way. Clearly, the public needs to be educated about the theory of evolution, even after a century and a half. Most of those who rail against the theory of evolution have read neither *The Origin of Species* (1859) nor *The Descent of Man* (1871), let alone the rich trove of evolutionary research conducted by respected biologists and social scientists since those seminal works appeared. The few creationists who have read them (or parts of them) seem bent on obtusely misconstruing them, either by incompetence or by devious intent.

Unfortunately, the report has fallen into two pitfalls rooted in the current polemical atmosphere: (1) it praises the theory of evolution hyperbolically; (2) it accommodates creationism (or intelligent design, or religion) too cravenly.

The opening of the Executive Summary shows both the hyperbole and the atmosphere:

The discovery and understanding of the processes of evolution represent one of the most powerful achievements in the history of science....

Evolutionary science provides the foundation for modern biology.... Regrettably, effective science education in our schools is being undermined by efforts to introduce non-scientific concepts about evolution into science classrooms.

The praise of the theory of evolution here is transcendent, but not fully warranted.

The report defines a scientific theory as “a comprehensive explanation of an important feature of nature that is supported by many facts gathered over time [and that allows] scientists to make predictions about as yet unobserved phenomena.”

Where evolution theory falls short as a scientific theory is in its lack of predictability. We know the fittest that survive only *ex post facto*, not *ex ante lege*.

In addition, as a theory, it is not on the same exalted level as the Copernican heliocentric theory of the universe, or the Cartesian theory of the mathematizing of nature, or the Newtonian theory of universal gravitation, or the Einsteinian theory of relativity.

Nevertheless, the theory of evolution has demonstrated formidable explanatory powers. Even more, it has been able to move the abstract modern scientific project into a sphere of concrete phenomena that allowed fuller implications of that science to penetrate social theory and popular consciousness.

Most important, even if the theory of evolution is not perfect as a theory, it is *scientific*.

That is decisive, because—as the report states—“creationism is not science.... Science and religion address separate aspects of human experience.”

This simple principle seems to escape the notice of the belligerently blindered creationists. And it is disregarded by those who allow themselves to be bullied or mindlessly persuaded by them.

Discussants of the relative merits of evolution and creationism go awry when they make the issue between these two views the question of which is correct. As Aristotle might say, each is correct *in a sense*, which means that each is incorrect in another sense. In the final analysis, which one is correct is irrelevant. Even if evolution is incorrect, it is scientific; even if creationism is correct, it is not.

That should keep each from trespassing into the other’s territory. To adapt a distinction used by Bruno Bettelheim—in his analysis of fairy tales—any alleged reality of science does not have to be true, and any alleged truth of creationism does not have to be real.

Science that can be intimidated by faith is not science, and faith that can be shaken by science is not faith.

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