PERCEPTIONS IN SCIENCE

Is Evolution a Secular Religion?

Michael Ruse

The same sort of stuff can be found in the writings of other early evolutionists, notably in the Philosophes Zoologique, published in 1809 by the Frenchman Jean-Baptiste Lamarck.

Charles Darwin, a serious full-time scientist, set out to change all of this. First, he wanted to give an empirically grounded basis for belief in the fact of evolution. Second, he wanted to persuade his readers of a particular mechanism of evolution, the natural selection of the successful brought on by the struggle for existence. In his first aim, Darwin was spec-

Creationists have argued that evolution is much more than a scientific theory. They claim that it is a secular religion with its own commandments, moral messages, and cathedrals. Huxley's own work was in higher education, and he succeeded best in the areas of physiology and morphology. He realized that to improve and professionalize these fields as areas of teaching and research, he needed clients (a must in all system building). He succeeded best in the areas of physiology and morphology. He realized that to improve and professionalize these fields, he needed...
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Morphology, Huxley sold to the teaching profession, on the grounds that hands-on empirical study was much better training for modern life than the outmoded classics. Huxley himself sat on the new London School Board and started teacher training courses. His most famous student was the novelist H. G. Wells.

Evolution had no immediate payoff. Learning phylogenies did not cure belly ache, and it was still all a bit too daring for regular schoolroom instruction. But Huxley could see a place for evolution. The chief ideological support of those who opposed the reformers—the landowners, the squires, the generals, and the others—came from the Anglican Church. Hence, Huxley saw the need to found his own church, and evolution was the ideal cornerstone. It offered a story of origins, one that (thanks to progress) puts humans at the center and top and that could even provide moral messages. The philosopher Herbert Spencer was a great help here. He was ever ready to urge his fellow Victorians that the way to true virtue lies through progress, which comes from promoting a struggle in society as well as in biology—a laissez-faire socioeconomic philosophy. Thus, evolution had its commandments no less than did Christianity. And so Huxley preached evolution-as-world-view at working men’s clubs, from the podia during presidential addresses, and in debates with clerics—notably Samuel Wilberforce, Bishop of Oxford. He even aided the founding of new cathedrals of evolution, stuffed with displays of dinosaurs newly discovered in the American West. Except, of course, these halls of worship were better known as natural history museums (see the photographs).

As with Christianity, not everyone claimed exactly the same thing in the name of their Lord. Yet, moral norms were the game in town, and things continued this way until the third phase, which began around 1930. This was the era during which a number of mathematically trained thinkers—notably Ronald Fisher and J. B. S. Haldane in England, and Sewall Wright in America—fused Darwinian selection with Mendelian genetics, and thus provided the conceptual foundations of what became known as the synthetic theory of evolution or neo-Darwinism. Rapidly, the experimentalists and naturalists—notably Theodosius Dobzhansky in America and E. B. Ford in England—started to put empirical flesh on the mathematical skeleton, and finally Darwin’s dream of a professional evolution with selection at its heart was realized. But there is more to the story than this. These new-style evolutionists—the mathematicians and empiricists—wanted to professionalize evolution because they wanted to study it full time in universities, with students and research grants, and so forth. However, like everyone else, they had been initially attracted to evolution precisely because of its quasi-religious aspects, regardless of whether these formed the basis of an agnostic/atheistic humanism or something to revitalize an old religion that had lost its spirit and vigor. Hence, they wanted to keep a value-impregnated evolutionism that delivered moral messages even as it strived for greater progressive triumphs.

This all meant that by the 1940s and 1950s the study of evolution was of two sorts. There was serious empirical work, very professional, containing few or no direct exhortations to moral or social action. Along with this, almost all of the leading evolutionists were turning out works of a more popular nature, about progress and the ways to achieve it. By the 1950s, evolutionary works, such as those by the Darwinian paleontologist G. G. Simpson, discussed democracy and education and (increasingly) conservation. In 1944, Simpson published Tempo and Mode in Evolution: straight science about natural selection and the fossil record. Then, in 1949, he published The Meaning of Evolution: science for the general reader, packed with all sorts of stuff about the virtues of the American way over communism. (Remember, the Cold War was then settling into its long winter, and Trofim Lysenko was destroying Russian biology.) Finally, in 1953, came Simpson’s The Major Features of Evolution, and we were back to straight science.

Things have continued in much the same way to the present. There is professional evolutionary biology: mathematical, experimental, not laden with value statements. But, you are not going to find the answer to the world’s mysteries or to societal problems if you open the pages of Evolution or Animal Behaviour. Then, sometimes from the same person, you have evolution as secular religion, generally working from an explicitly materialist background and solving all of the world’s major problems, from racism to education to conservation. Consider Edward O. Wilson, rightfully regarded as one of the most outstanding professional evolutionary biologists of our time, and the author of major works of straight science. In his On Human Nature, he calmly assures us that evolution is a myth that is now ready to take over Christianity. And, if this is so, “the final decisive edge enjoyed by scientific naturalism will come from its capacity to explain traditional religion, its chief competition, as a wholly material phenomenon. Theology is not likely to survive as an independent intellectual discipline” (3). An ardent progressive, Wilson sees moral norms emerging from our need to keep the evolutionary process moving forward. In his view, this translates as a need to promote biodiversity, for Wilson believes that humans have evolved in a symbiotic relationship with nature. A world of plastic would kill us humans, literally as well as metaphorically. For progress to continue, we must preserve the Brazilian rainforests and other areas of high organic density and diversity (4).

So, what does our history tell us? Three things. First, if the claim is that all contemporary evolutionism is merely an excuse to promote moral and societal norms, this is simply false. Today’s professional evolutionism is no more a secular religion than is industrial chemistry. Second, there is indeed a thriving area of more popular evolutionism, where evolution is used to underpin claims about the nature of the universe, the meaning of it all for us humans, and the way we should behave. I am not saying that this area is all bad or that it should be stamped out. I am all in favor of saving the rainforests. I am saying that this popular evolutionism—often an alternative to religion—exists. Third, we who cherish science should be careful to distinguish when we are doing science and when we are extrapolating from it, particularly when we are teaching our students. If it is science that is to be taught, then teach science and nothing more. Leave the other discussions for a more appropriate time.

References and Notes

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Editor's Summary

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