Before Darwinism was a science, it was a religion. In fact, it remains a religion, even as it has become a full-fledged science.

These are provocative statements, yet they constitute the fundamental thesis of Michael Ruse’s *Darwinism As Religion*. Darwinism didn’t become a full-fledged science until it was attached to the discovery of the structure of DNA and its role as information storage for genetic information. The idea of natural selection and sexual selection certainly made a great deal of sense to many people when Darwin’s books came out, but until one could actually study those things—meaning, you knew the mechanism of information storage, communication, and inheritance—Darwinism remained precisely that: an idea. A good idea, a highly generative idea, but a mere idea nonetheless. Ruse argues that this makes Darwinism at its most scientific mere popular science, and at its most speculative and imaginative, religion.

Why religion? Because much of the work in developing the ideas of Darwinism was done in literature. The implications of Darwinism for ethics, values, and meaning were primarily investigated by literary artists—poets and novelists—and thus demonstrated in complex ways through characters. One could easily view the Bible as a collection of stories and poetry the primary purpose of which is to illustrate the ethics, values, and meaning implied by the Jewish religion (in the Old Testament) and the teachings of Jesus (in the New). Until and unless an idea can be attached to a scientific method of investigation, and so long as those ideas can only be investigated using artistic methods, those ideas remain a religion.

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From this perspective, there are a number of ideas out there that could be classified as religions. Marxism, insofar as it remains an entirely unscientific ideology and yet inspires artists, songwriters, poets, playwrights, and novelists, is a prime example of this kind of contemporary religion. The idea of wormholes in physics is another example, as the implication of the existence of wormholes has been investigated in science fiction, including *Star Trek: Deep Space Nine*. Similarly, Freudianism fared better as a religion—finding immense popularity in a wide variety of literary writers, from the surrealists to William Faulkner—than as a scientific project, even as it launched psychology as a science (a science being made more scientific with neurobiology, much as Darwinism was made more scientific with molecular biology).

Ruse, by the way, is no Christian, so this isn’t an attempt to “bring Darwinism down” to the level of creationism. Rather, Ruse says that Darwinism is a religion because it “tries to speak to the nature of humans and their place in the scheme of things.” If you have that, you have a religion or, if you prefer “a secular religious perspective.” (p. x). There should be little question that Darwinism implies a great deal about both human nature and our place in the cosmos. Many have taken the latter in particular to mean that we are but momentary specks of dust in the cosmos, and will have as little impact on the cosmos as any given speck of dust (a position Nietzsche takes as he pushes his thought toward—and, fortunately, beyond—nihilism). More than any other set of ideas, Darwinism fundamentally questions, for many people, the existence of God. If organisms evolve through natural selection, there’s no need for a creator God in the traditional Judeo-Christian-Islamic sense. This is very much reflected in the works of artists like George Eliot and Thomas Hardy, both of whom take on the implications of Darwinism full force. In the end, these positions have implications for culture, ethics, and religion—and, ultimately, civil society as a whole.

Ruse begins his project by tracing the early ideas about biological evolution to a number of pre-(Charles) Darwin poets, from Alexander Pope in *An Essay on Man* to the po-
tery of Charles Darwin’s own grandfather, Erasmus Darwin. This parallels the project of Leonard Shlain in *Art and Physics: Parallel Visions in Space, Time and Light*. In *Art and Physics*, Shlain argues that many Modernist artists actually anticipated the discoveries and theories of later physicists, including Einstein and the quantum physicists. As Shlain puts it,

“I propose that the radical innovations of art embody the preverbal stages of new concepts that will eventually change a civilization. Whether for an infant or a society on the verge of change, a new way to think about reality begins with the assimilation of unfamiliar images (1993/2001, p. 17).

Ruse traces something similar happening in literature as artists first anticipate, then consciously wrestle with, the ideas of Darwinism. Indeed, if poetry “says the unsayable,” meaning it’s a kind of “preverbal” verbalization of ideas in their infant form, then it is working in a similar way as the visual arts do during revolutionary periods. As Shlain points out, “Repeatedly throughout history, the artist introduces symbols and icons that in retrospect prove to have been an avant-garde for the thought patterns of a scientific age not yet born” (1993/2001, p. 19). The same is true of metaphors and images in poetry.

Indeed, Ruse repeatedly demonstrates that poets and novelists anticipated the thought patterns of our own Darwinian age, from the loss of meaning to the questioning of the source of values. Thus, pre-Darwinian evolutionary thought has the structure of pseudoscientific thought. After Darwin, though, it takes on the structure of popular science in the way it’s investigated. Given that people are taking Darwin’s ideas more on faith than through evidence provided by scientific investigations (something which cannot actually take place until the 20th century), it is fundamentally more religious in structure than scientific.

Ruse’s story is about how evolution in general and Darwin’s ideas about it in particular affected English culture through literature (the work only deals with the English-language literary writers’ works, something which gives it focus while simultaneously making it feel a bit provincial). In many ways it’s a continuation—Ruse practically says it’s a culmination—of his life’s work, combining his love (literature) with that life’s work (p. xi) on Darwinism and philosophy, Darwinism and religion, Darwinism and culture.

Regardless, the work should be attractive to cultural historians and even literary theorists who are interested in the genealogy of Darwinist ideas. Those interested in learning how Darwinist ideas can help one learn more about literature, the way literary scholars like Joseph Carroll and Jonathan Gottschall do, will have to look elsewhere.

Because of Darwin’s social position, it did not take long for his ideas to enter the culture. Elizabeth Gaskell, in *Wives and Daughters* (1866), has a character, Roger Hamley, who is based on Darwin. Ruse notes that “Mrs. Gaskell new Darwin and was distantly related to him” (p. 60), so the inclusion of such a character may have been a sort of inside joke. Even earlier than Gaskell, Dickens makes reference to Darwinian thinking when he has Pip say in *Great Expectations* that his five dead siblings “gave up trying to get a living, exceedingly early in that universal struggle” ([1860] 1948, p. 1: cited in Ruse p. 60). Ruse also notes that Dickens “would have known all about Darwin’s theory because in the weekly magazine he edited, *All the Year Round* (circulation c100,000), he carried two articles in mid-1860 and another in 1861 that discussed the Origin and natural selection carefully” (p. 61). It was already entering the popular culture—and at the time, Dickens was the popular culture.

This connection of a new scientific idea to the popular culture and how the idea was actually developed in the culture is the central theme of this book. Here Ruse traces the development of Darwinism through the works of various individuals thinking through the implications of Darwinism. We can see the development of Darwinism is a bottom-up self-organizing process, and *Darwinism as Religion* shows that an idea like this does not necessarily emerge and evolve within a single kind of order, such as the scientific order. Those familiar with Darwin’s ideas may be familiar with the degree to which economists—especially Malthus, and to a certain degree Adam Smith—influenced Darwin’s thinking on evolution, but few realize the degree to which his ideas evolved within the realm of literature. So here we have an idea—in this case, biological evolution—jumping from the social sciences and literature, into the natural sciences (really, the realm of popular science), and back into literature. The process is really even more back-and-forth than this, as the idea of evolution developed within literary works, jumped into the natural sciences and the social sciences, then back again, and back and forth between the natural and social sciences. The idea is transformed in each spontaneous order—literary, social science, natural science, popular culture—and each order is in turn affected by those changes. Ultimately, civil society as a whole is changed. Especially as Darwinism comes to dominate our thinking.
With chapters titled “God,” “Origins,” “Humans,” “Race and Class,” “Morality,” “Sex,” “Sin and Redemption,” and “The Future,” Ruse wants to make the argument that Darwinism covers all of the standard religious topics. Let’s take the issue of race. While the Bible both makes it clear that we are allowed to engage in genocide and that we are to love not just our neighbors, but our enemies as well, many contemporary Darwinists insist evolutionary thinking means universal cosmopolitanism. E. O. Wilson faced a backlash from precisely these kinds of Darwinians because he dared explain why people are inherently racist and sexist rather than insisting that racism and sexism are socially constructed and thus not really a part of our evolved nature. This was a religious battle within the religion of Darwinism, and is best understood as such. Wilson was a heretic, and the orthodoxy attacked him. And yet, as anyone familiar with the term “Social Darwinism” knows, Darwinism has hardly had a good track record on racial issues.

While Ruse notes that Darwin himself was an abolitionist and generally saw all human beings as part of a single human race, that hardly meant he didn’t think that Western civilization wasn’t superior. Ruse also complains, though, that “It is remarkable the extent to which people were able simultaneously to argue for the abolition of slavery and for unfettered laissez faire in their own factories” (p. 132), further complaining that Darwin opposed unions because the unions worked to ensure equal pay and work for “the good and bad, the strong and weak” and opposed Cooperative Societies because they were anti-competitive and thus seemed to him “a great evil for the future progress of mankind.” Here Ruse exposes his refusal to apply Darwinian thought to economic issues, while Darwin was being completely consistent in his views. Ruse here conflates two kinds of equality—equal treatment under the law and equality of outcomes—that are very much in conflict with each other. This, though, doesn’t really affect his overall message—even if it exposes certain other religious beliefs he appears to hold.

Perhaps because he’s concentrating on poets’ and novelists’ reactions, Ruse mostly skirts the issue of Social Darwinism and, rather, discusses the ambiguities toward race by the Darwinists. Because, as Ruse points out, Darwin and the Darwinists all seemed to believe in progress, they had to explain why Europe had so obviously progressed while much of the rest of the world had not. The explanation everyone seemed to settle on was that it was due to race—an explanation that seemed to fit an evolutionary perspective dominated by the idea of natural selection. In part this occurred (and still occurs) because people do not understand the element of selection as the social level, as opposed to the element of selection at the biological level. At the social level entire groups can be selected for or against based on their institutions. Even then, the individuals within the group don’t have to go extinct, but rather can change their institutions to better adapt to their situations. As a result, the group evolves to protect the individuals in the group. The existence or absence of certain institutions are going to be affected by physical environment, population, exposure to other cultures, and history. If something is working well for a people, why change it? This kind of relativistic egalitarianism, though, was hardly prevalent at the time.

We often forget that ideas are formed within a historical context. Darwinism is hardly any different. It emerged at a particular time, in a particular place, when and where Christianity was weakening. Darwinism was seen by many as a perfect replacement for Christianity, and it has indeed emerged as a replacement for many people. Those who look back and notice the emergence of Social Darwinism and then argue that therefore Darwinism is now inherently racist miss the fact of historical contingency—and the fact of the evolution of ideas themselves. Darwinism is no longer what it was, because we are no longer what we were as a culture. Part of the reason we are no longer what we were is because we are all Darwinists now. Evolutionary thinking pervades the culture, helping us understand our place in the world, racial and sexual issues, economic and social issues, and so on. If we are more egalitarian in our thinking, it’s because through Darwinism we understand that everything alive—flatworm to human, bacteria to redwood tree, and every race on earth—is here precisely because they were the offspring of the winners in the Darwinian struggle for existence. Are you really superior to an earthworm? Can you do the job of an earthworm? Yes, humans are far more complex, but we all have our place in the cosmos. And each and every one of those places are valuable and meaningful. If we take that perspective, the future of the Darwinian religion looks bright.

In the end, Ruse has written an excellent, thoughtful book that takes the reader on an unexpected journey through the development of Darwinism through poetry and storytelling. Darwinians probably won’t like to hear that what they believe is a religion, but not everything we need to hear will be what we want to hear. More, though, this book is an excellent overview of the way ideas enter the culture and evolve within that culture, often by jumping from one social order to another. Darwinism affects our thinking from
philosophy to literature, from religion to politics, from economics to anthropology, from pop culture to high culture—it is one of the most successful religions the world has ever seen. Proponents will argue that its success comes from its ability to better explain the world—but that’s all any religion has ever done or tried to do throughout the history of humankind.

REFERENCES