

Comments on Darwinism

The theme of Dr. Kuhn's paper is that Darwin's theory of evolution to explain the origin of species is inadequate, and that the 2010 decision by the Texas State Board of Education to require textbooks to present the weaknesses, as well as the strengths, of Darwin's theory was appropriate. The three limitations of Darwin's theory concern the origin of DNA, the irreducible complexity of the cell, and the paucity of transitional species. Because of these limitations, the author predicts a paradigm shift away from evolution to an alternative explanation.

The intellectual problem, in my opinion, is not that evolution has "fatal defects," but rather that it remains a suspect theory for most Americans >150 years after the publication of *The Origin of Species* (1859). While the Texas State Board of Education may have debated the issue for 3 full days in 2010, its recommendation in the end will probably be ignored by scientists who write textbooks. I suppose the Texas decision represents progress. Tennessee's Butler Act made it unlawful to teach evolution, giving rise to the Scopes trial in 1925, in which John T. Scopes, a high school teacher, was accused of violating that law. After an 8-day trial, a guilty verdict was reached.

To embrace the idea that all forms of life, great and small, plant and animal, primate and nonprimate, were derived from a common primordial cell or organism requires a scientific perspective. The various religions, current and extinct, typically elevate humans above other forms of life. Most *Homo sapiens* believe that the different species on planet earth were created independently by a God, in sequential batches, placed in certain locales, with the *Homo sapiens* inherently superior, made in the image of the creator—thus, the resistance to the concept of evolution.

With respect to the origin of DNA as a weakness of Darwinism, our knowledge of DNA, from my reading, has added to, not subtracted from, the evidence of evolution. In the 2006 preface to the 30th anniversary edition of *The Selfish Gene* (first published by Oxford University Press in 1976), author Richard Dawkins wrote:

The correct word of the title to stress is "gene" and let me explain why. A central debate within Darwinism concerns the unit that is actually selected: what kind of entity is it that survives, or does not survive, as a consequence of natural selection. That unit will become, more or less by definition, "selfish." . . .

Let me repeat and expand the rationale for the word "selfish" in the title. The critical question is which level in the hierarchy of life will turn out to be the inevitably "selfish" level, at which natural selection acts? The Selfish Species? The Selfish Group? The Selfish Organism? The Selfish Ecosystem? Most of these could be argued, and most have been uncritically assumed by one or another author, but all of them are wrong. Given that the Darwinian message is going to be pithily encapsulated as The Selfish *Something*, that something turns out to be the gene, for cogent reasons which this book argues.

The notion of "irreducible complexity" in a cell, as an argument against evolution, is beyond my present understanding. Knowing that life has existed on planet earth for billions of years, however, I suspect that there has been time enough for evolution, no matter how complex, with reducibility.

With respect to transitional species, a brief glance through recent issues of *National Geographic* shows no paucity of data from paleontologists. Human lineage can be traced back >6 million years, with fossils discovered in East Africa from all three major phases of hominid evolution—*Ardipithecus*, *Australopithecus*, and *Homo*—with a divergence from living ape species (chimpanzee and bonobos) roughly 8 to 6 million years ago. Transitional species have been identified in numerous other groups. The whale, for example, accomplished an enormous transformation, with fossil evidence. Fifty million years ago it was semi-terrestrial; now it is fully aquatic.

Seven billion *Homo sapiens* now inhabit planet earth. World population in AD 1 (the time of Christ) was about 200 million. In the struggle for survival in the next century and beyond, the hand of natural selection will be at work, I believe, and evidence of evolution, to explain the origin, modification, and behavior of species, will continue to increase.

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Editor's note: Gregory Dimijian, MD, is also preparing a full-length article on Darwinism, which *Proceedings* will publish in an upcoming issue.