

Richard Dawkins (1941- ) is a British zoologist and evolutionary theorist best known for his concepts of the *selfish gene*, the *extended phenotype*, and the *meme*. He was born in Kenya, and educated at Oxford, where he has lived and worked since 1970. His 1976 book, *The Selfish Gene*, is one of the classic works of neo-Darwinism, unifying and clarifying the emerging consensus among such evolutionary theorists as William Hamilton, George Williams, Robert Trivers, John Maynard Smith, and his doctoral supervisor, the ethologist Niko Tinbergen. This book articulates the theory of natural selection in such vivid and accessible terms that it is often mistakenly regarded as merely a “popular” book. Dawkins’ central claim is that the most fundamental (and hence most explanatory) perspective on all evolution by natural selection is the “gene’s-eye-view,” in which benefits to species, lineages, groups, and even individual organisms are seen to be subsidiary to the primary beneficiaries of all adaptations, the “selfish” genes themselves. Over time, evolution designs and builds organisms (“survival machines”) that benefit coalitions of genes by improving their prospects for replication. The reach of genes does not stop at the skin of the organism: some genes control the design and construction of an *extended phenotype*, harnessing features of the environment and even other species. Thus the beaver’s dam and the spider’s web are just as important parts of the phenotypes of those species as their eyes and mouths, and parasites often exploit the behavioral controls of the host species, hijacking other genes’ survival machines. Emphasizing the universal application of Darwin’s fundamental insights, Dawkins drew attention to the possibility that when genetic natural selection created a species, *Homo sapiens*, with an extended phenotype that included language and technology, this in effect established a new medium of evolution by natural selection: human culture, in which the differential replication of salient cultural items, *memes*, could account for many of the features of cultural evolution that are otherwise perplexing. Although Dawkins initially presented the idea of memes as a sort of thought experiment to illustrate the abstractness of the fundamental idea of natural selection, and has not himself claimed to be making a major contribution to the scientific investigation of the evolution of human culture, others have taken up the concept enthusiastically, with mixed results to date.

In 1986, Dawkins published another pedagogical tour de force, *The Blind Watchmaker*, in which he illustrated many of the most elusive implications of evolutionary theory via his pioneering “Blind Watchmaker” software, one of the early triumphs of the Artificial Life movement in theoretical biology. In 1995, he was appointed to be the first Charles Simonyi Professor of the Public Understanding of Science at Oxford, and in this ideal role for a writer of his talents, he has subsequently published a series of lucid books and articles explaining aspects of science to the general public, and has taken the lead in the public discussions of controversial issues of science policy and politics. Most recently, his broadside on religion, *The God Delusion*, 2006, an attempt to “raise consciousness” about the weaknesses and follies of traditional religious belief, has attracted both enthusiastic praise and vilification, and played a leading role in what is being called “the new atheism”. Less well known to the lay public are Dawkins’ important analyses of fundamental problems in kin selection and the evolution of communication, among other topics.

*The Selfish Gene*, Oxford: Oxford University Press, 1976

*The Extended Phenotype*, Oxford: Oxford University Press, 1982

*The Blind Watchmaker*, New York: W.W.Norton, 1986

*The Ancestor's Tale*, Boston: Houghton Mifflin, 2004  
*The God Delusion*, Boston: Houghton Mifflin, 2006