

Evolutionary naturalism: an ancient idea

Jerry Bergman

The theory of biological evolution is not a modern idea as is often supposed. Organic evolution was first taught by the Greeks at least as early as the 7th century BC. Greek philosophers probably borrowed and adapted their evolutionary ideas from the Hindus, who believed that souls transformed from one animal to another until they reached a perfection state called *nirvana*. Charles Darwin allegedly made no contributions to the development of the theory of evolution by natural selection, but simply helped to popularize it. Evolutionists today argue that evolution is a modern idea (i.e. a product of scientific research), in part as an effort to lend credibility to their worldview.

Ancient theories of evolution

It is frequently implied that the theory of biological evolution is a modern idea—a product of our advanced scientific age. Conversely, a creationist worldview is often criticized as being a product of our less informed ancestors, and that this view is now a disproven relic of the past.

The Mayan culture began about 600 BC, and its religion incorporated a ‘streamlined evolution’ that taught that the rain-god constructed humans by adding to (and thereby modifying) his previous creations. This rain-god first made rivers, then fish, next serpents and, last, humans. The members of a totem clan believed

‘themselves to be of one blood, descendants of a common ancestor. ... Thus, the Turtle clan of the Iroquois are descended from a fat turtle, which, burdened by the weight of its shell in walking ... gradually developed into a man. The Cray-Fish clan of the Choctaws were originally cray-fish and lived underground, coming up occasionally through the mud to the surface. Once a party of Choctaws smoked them out, and, treating them kindly ... taught them to walk on two legs, made them cut off their toe nails and pluck the hair from their bodies, after which they adopted them into the tribe. But the rest of their kindred, the cray-fish, are still living underground. The Osages are descended from a male snail and a female beaver.’¹

The relationship of totemism to evolution is described in more detail in the following quote:

‘The luck attributed to a rabbit’s foot stems from a belief rooted in ancient totemism, the claim, predating Darwinism by thousands of years, that humankind descended from animals. Differing from Darwinism, however, totemism held that every tribe of people evolved from a separate species of animal. A tribe worshiped and refrained from killing its ancestral animal and employed parts of that animal as amulets, called totems.’²

One of the first evolutionary theories was proposed by Thales of Miletus (640–546 BC) in the province of Ionia on the coast near Greece. He was also evidently the first person to advance the idea that life first originated in water.³ Birdsall notes that Thales’ view of biological evolution ‘was not too far from modern truth’. One of Thales’ students, Anaximander (611–547 BC), developed these ideas further, concluding that humans evolved from fish or fishlike forms.⁴ These fish-men eventually cast off their scaly skin and moved to dry land where they have been ever since.

The Greek philosopher Empedocles (493–435 BC), often called the father of evolutionary naturalism, argued that chance alone ‘was responsible for the entire process’ of the evolution of simple matter into modern humankind.⁵ Empedocles concluded that spontaneous generation fully explained the origin of life, and he also taught that all living organism types gradually evolved by the process of trial-and-error recombinations of animal parts.⁶ He also believed that natural selection was the primary mechanism of evolution, the fittest being more likely to survive to pass their traits on to their offspring.⁷

In short, Empedocles’ pre-Darwin ‘survival-of-the-fittest’ theory taught that life evolved by pruning the less-fit life forms—i.e. the merciless destruction of the weaker animals and plants. Unfortunately, many early Greek manuscripts have been lost, but the texts that survive provide enough details to determine with some accuracy what the ancient Greeks believed. This evidence motivated Osborn to conclude that ‘Darwin owes more even to the Greeks than we have ever recognized.’⁸

Evidence also exists that the Greek philosophers gleaned their evolution-of-life ideas from the Hindus, who believed that souls transformed from one animal to another until they reached a level of perfection called *nirvana*. Both the Greeks and Hindus also could have obtained their evolution-of-life ideas from even more ancient peoples. Aristotle (384–322 BC) claimed that humans are the highest point of one long, continuous ‘ascent with modification’ of life.⁷ Modern scientific research, though, has found that that natural selection often does not eliminate weak individuals in a species. Evidence now points to the conclusion that nearly all extinctions are the result of chance and/or human mismanagement.⁹ Natural selection cannot create, but can only prune the less-perfect organisms, serving primarily to slow the rate of biological degeneration.¹⁰

Nor is the paleontological record, as a putative evidence of evolution, a recent conclusion. The first person ‘known



Aristotle (384–322 BC)

to have explicitly recognized fossils as memorials of geological change and the succession of life' was evidently Xenophanes of Colophon.¹¹ Some speculate that Thales and Anaximander also may have concluded that the fossil evidence supported biological and geological evolution.

Modern theories of evolution: did Darwin contribute?

Darwin was not even the first modern-day biologist to develop the idea of organic evolution. De Vries noted that

'evolution, meaning the origin of new species by variation from ancestor species, as an explanation for the state of the living world, had been proclaimed before Darwin by several biologists—thinkers, including the poet Johann Wolfgang Goethe in 1795. Jean-Baptiste de Lamarck in 1809, Darwin's grandfather, the ebullient physician-naturalist-poet-philosopher Erasmus Darwin, and in Darwin's time anonymously by Robert Chambers in 1844.'¹²

Even Darwin's commonly alleged major contribution to evolution, natural selection, was developed earlier by others including William Charles Wells in 1813, and later Alfred Russell Wallace. Wallace sent Darwin a copy of his paper describing his independently developed theory of evolution by natural selection in 1858.¹³ De Vries noted that some critics have concluded that Darwin actually made no major new contributions to this theory.

The modern theory of biological evolution probably was first developed by Charles De Secondat Montesquieu (1689–1755), who concluded that 'in the beginning there were very few [kinds of] species, and they have multiplied since'.¹⁴ Another important evolutionist was Benoit de Maillet (1656–1738), whose book on evolution was published in 1748. In his book, de Maillet taught that fish were the forefathers of birds, mammals and men.¹⁵ Mau-pertuis wrote in 1751 that new species may result from the fortuitous recombining of different parts of living beings. About this same time, Diderot the Encyclopedist taught that all animals came from one primeval animal, and that this prototype was fashioned by nature into all those types of

animals alive today.¹⁶ George Louis Buffon (1707–1788) even expounded the idea that 'the ape and man had a common ancestry'. Macrone notes that while Darwin indeed gave evolution a firmer scientific basis,

'he was hardly the first to propose it. A century before Darwin the French naturalist Georges Buffon wrote extensively on the resemblance among various species of birds and quadrupeds. Noting such similarities and also the prevalence in nature of seemingly useless anatomical features (such as toes on a pig), Buffon voiced doubts that every single species had been uniquely formed by God on the fifth and sixth days of creation. Buffon suggested in guarded language at least a limited sort of evolution that would account for variances among similar species and for natural anomalies.'¹⁷

One of the most important pre-Darwinists was Charles Darwin's grandfather, Erasmus Darwin (1731–1802). He expounded his ideas at length in his book *Zoonomia*, published in 1794. This work was no obscure volume, but sold well and even was translated into German, French and Italian. Darlington argued that Erasmus Darwin 'originated almost every important idea that has since appeared in evolutionary theory', including natural selection.¹⁸ Darwin admitted that he probably got many of the major portions of his biological evolution theory from his grandfather.

It usually is asserted that Erasmus Darwin's view was less well developed than Charles Darwin's and was actually erroneous in many areas. Desmond King-Hele made an excellent case for the view that Charles Darwin's theory, even 'in its mature form in the later editions of the *Origin of Species*, is, in some important respects, less correct than that



George Louis Buffon (1707–1788)



Erasmus Darwin (1731–1802)

of Erasmus'.¹⁹ Both writers stressed that evolution occurred by the accumulation of small fortuitous changes that then were sifted by natural selection. Erasmus wrote that

'in the great length of time since the earth began to exist, perhaps millions of ages before the commencement of the history of mankind, would it be too bold to imagine, that all warm-blooded animals have arisen from one living filament, which THE GREAT FIRST CAUSE endued with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions, and associations; and thus possessing the faculty of continuing to improve by its own inherent activity, and of delivering down those improvements by generation to its posterity, world without end!'²⁰

Charles Darwin even evidently accepted Lamarckian evolution to a greater extent than did Erasmus, a conclusion that proved to be a major blunder for him.²¹ For example, in explaining the evolution of the giraffe's long neck, Darwin accepted the validity of evolution by use and disuse although in this case he also used natural selection as the major explanation of giraffe neck evolution.²²

Another important pre-Darwinian book was Robert Chambers' *Vestiges of the Natural History of Creation*, which was published in 1844. Without this book, Darwin said he might never have written *Origin of Species*.²³ In a summary of this work, Crookshank concluded that Chambers (1802–1871) believed that the extant varieties of humans resulted from evolutionary advances and regressions. Yet another person who came up with Darwin's main conclusions was Patrick Matthew. Matthew,

'whose priority was acknowledged later by both Charles Darwin and Edward Blyth, anticipated all Darwin's main conclusions by 28 years, yet he thought them so little important that he published them as an appendix to his book on naval timber and did not feel the need to give substance to them by continuous work. Darwin's incessant application, on the other hand, makes one think that he had found in evolution and its related concepts not merely a scientific theory about the world, but a vocation: he had discovered the theory and practice of himself.'²⁴

Not only is evolutionary naturalism an old idea, but the creation-evolution conflict is ancient as well:

'In the eighteenth-century European "Age of Reason", an attempt at a complete separation of faith and reason, coupled with a belief in the self-sufficiency of reason to explain all causality, precipitated what Andrew White later called the "warfare of science with theology". Yet, even in Aristotle's time the ideas of Democritus and the Atomists and the reflections of Empedocles on gradual adaptation and change in organisms must have stimulated conflict between religion and natural science.'²⁵

Darwin's work was only the "palace coup" among the elite, the final act in a long drama, with the real fight to establish a lawful, evolutionary worldview among the "people" taking place a generation earlier'.²⁶

Summary

Although Charles Darwin was highly successful in popularizing the idea of organic evolution by natural selection, he was by no means the originator of the theory as commonly supposed. Nor was Darwin the originator of even those aspects of the evolution theory for which he is most often given credit today—natural selection and sexual selection. Organic evolution is part of the past and present culture of many nations, and is not a modern (or even an exclusively scientific) idea as is often claimed. This claim often is an attempt to give the theory credibility. This fact was expressed well by one evolutionist when he wrote that the 'idea of miraculous change, which is supposed to be an exclusive prerogative of fairy-tales, is a common phenomenon of evolution ...'.²⁷

The popularity of the modern evolutionistic worldview is not, as many assume, because modern science has replaced old superstitions about origins. Evolution's acceptance has much more to do with the use of the tools of science by multi-thousands of dedicated researchers, using the billions of dollars provided by governments to build a case for an ancient theory intended to support the atheism that now dominates both science and our increasingly secular society. This fact is important because the claim that Darwinism is a modern scientific idea is used as a major argument for its validity.

Acknowledgments

I wish to thank Bert Thompson and John Woodmorappe for their valuable insight and feedback on an earlier draft of this paper.

References

1. *Encyclopaedia Britannica*, The Werner Co., New York, Vol. 23, p. 467, 1898.
2. Panati, C., *Extraordinary Origins of Everyday Things*, Harper and Row, New York, p. 3, 1987.
3. Birdsell, J.B., *Human Evolution*, Rand McNally, Chicago, p. 22, 1972.
4. Thompson, B., *The History of Evolutionary Thought*, Star Bible & Tract Corp., Fort Worth, p. 29, 1981.
5. Thompson, Ref. 4, p. 31.
6. Osborn, H.F., *From the Greeks to Darwin*, Charles Scribner's Sons, New York, p. 52, 1929.
7. Osborn, Ref. 6, p. 54.
8. Osborn, Ref. 6, p. 4.
9. Raup, D., *Bad Genes or Bad Luck?* W.W. Norton, New York, 1991.
10. Bergman, J., The problem of extinction and natural selection, *CRSQ* **30**(2):93–106, 1993.
11. Glass, B., Owsel, T. and Straus, W., *Forerunners of Darwin: 1745–1895*, The Johns Hopkins Press, Baltimore, p. 6, 1959.
12. De Vries, A., The Enigma of Darwin, *Clio Medica* **19**(1–2):136–155; 1984, p. 145.
13. Kenyan, A.K., Darwin's 'joint paper', *CEN Tech. J.* **14**(3):72–73, 2000.
14. Quoted in, De Beer, G., Introduction in the 1969 reprint of: Chambers, R., *Vestiges of the Natural History of Creation*, p. 11, 1969.
15. De Beer, Ref. 14, p. 12.
16. De Beer, Ref. 14, p. 14.
17. Macrone, M., *Eureka!* Barnes & Noble, New York, p. 150, 1994.
18. Darlington, C.D., The Origin of Darwinism, *Scientific American* **200**(5):62, 1959.
19. King-Hele, D., *Erasmus Darwin*, Charles Scribner's Sons, New York, p. 81, 1963.
20. Darwin, E., *Zoonomia; Or the Laws of Organic Life*, J. Johnson, London, 1794. Reprint by AMS Press, New York, p. 505, 1974. Spelling and punctuation modernized by author, emphasis in original.
21. King-Hele, Ref. 19, p. 82.
22. Gould, S.J., *Leonardo's Mountain of Clams and the Diet of Worms*, Harmony Books, p. 312, 1989.
23. Crookshank, F.G., *The Mongol in Our Midst*, E.P. Dutton & Company, New York, p. 4, 1931.
24. Huxley, A., A reappraisal of Charles Darwin, *The American Scholar*, footnote, p. 489, Autumn 1959.
25. Macior, L., Introduction; in: Dodson, E.O. and Howe, G.F., *Creation or Evolution*, University of Ottawa Press, Ottawa, p. viii, 1990.
26. Desmond, A., *The Politics of Evolution*, University of Chicago Press, Chicago, p. 1, 1992.
27. Beebe, W., *The Bird: Its Form and Function*, Dover Publications, New York, p. 97, 1965.

Jerry Bergman has seven degrees, including in biology, psychology, and evaluation and research, from Wayne State University (Detroit), Bowling Green State University and other colleges. He has taught at Bowling Green State University (Ohio) and at the University of Toledo. He is now a professor of science at Northwest College, Archbold (Ohio), and is working on a third Ph.D., this one in molecular biology.

Evolutionist antipathy

In speaking of the fear of religion, I don't mean to refer to the entirely reasonable hostility toward certain established religions ... in virtue of their objectionable moral doctrines, social policies, and political influence. Nor am I referring to the association of many religious beliefs with superstition and the acceptance of evident empirical falsehoods. I am talking about something much deeper—namely the fear of religion itself ... I want atheism to be true and am made uneasy by the fact that some of the most intelligent and well informed people I know are religious believers. It isn't just that I don't believe in God and naturally, hope there is no God! I don't want there to be a God; I don't want the universe to be like that.

Thomas Nagel
The Last Word
Oxford University Press
New York, p. 30, 1997.