

EDITORIAL

IMPLICATIONS OF THE SPREAD OF DARWINISM

“Modern critics have often asked themselves how it is that a hypothesis like Darwin’s, based on such weak foundations, could all at once win over to its side the greater part of contemporary scientific opinion.” This quotation from the pen of the historian Erik Nordenskiöld (1928, p 477), in his treatise on the history of biology, presents an enigma that has more than passing interest for one seeking to find a basis for decisions regarding origins.

Evolution is considered to be one of the major intellectual achievements of the 19th century, and its widespread acceptance in spite of the paucity of supporting evidence presents a question of major import. Why does one hypothesis survive over another?

When Darwinism triumphed there was essentially no understanding of genetic mechanisms, a key concept in the operation of the theory. Darwin proposed the pangenesis theory which suggested that minute particles called “gemmules” from all parts of the body travel to other parts including the reproductive cells, thus causing offspring to resemble parents. These ideas have been rejected long ago.

The idea of natural selection as the basic mechanism for the evolution of all life was questioned then as it is now (see *Origins* 4:4-10). The lack of tangible support for Darwin’s views was a problem. Young (1971) states: “Darwin’s task was to explain *away* the *lack* of evidence while repeatedly stressing the greater plausibility of his theory over that of special creation.”

Another problem was the large gap between the small variations Darwin observed and the origin of significantly different kinds of organisms. Yet the theory required that all kinds of organisms be produced from simple to complex, and this was not observed. This has been a source of dissatisfaction with the theory from its beginning. Grene (1959) commenting on Darwin’s *Origin of Species* states: “It simply is not about the origin of species, let alone of the great orders and classes and phyla, at all. Its argument moves in a different direction altogether, in the direction of minute specialised adaptations.”

Perhaps the most difficult problem Darwin faced was the nature of the fossil record where discontinuity (gaps) as expected in a creation model, instead of continuity (no gaps) as expected in an evolution model, seemed to prevail. Darwin stated in the *Origin of Species* (1860, p 321): “Those who believe that the geological record is in any degree perfect, will undoubtedly at once reject the theory.” Darwin then undertook to show that the discontinuity between fossils resulted from the imperfection of the geologic record instead of this being a problem with the theory of

evolution. However, the absence of evolutionary intermediates was an argument from silence which could scarcely convince the skeptic.

One of the strongest arguments leveled against Darwin's idea was the question of how random variation could result in producing highly integrated structures such as the eye. Apparently this question troubled Darwin, for he wrote (1888, vol. 2, p 296) to his supporter, the American botanist Asa Gray:

...I remember well the time when the thought of the eye made me cold all over, but I have got over this stage of the complaint, and now small trifling particulars of structure often make me very uncomfortable. The sight of a feather in a peacock's tail, whenever I gaze at it, makes me sick!

During Darwin's last year of life, the Duke of Argyll had a conversation with him in which he asked if the wonderful contrivances described in Darwin's books on earthworms and orchids were not the "effect and the expression of mind." The Duke goes on to state:

I shall never forget Mr. Darwin's answer. He looked at me very hard and said, 'Well, that often comes over me with overwhelming force; but at other times,' and he shook his head vaguely, adding, 'it seems to go away.' (Darwin, 1887, vol. 1, p 316n).

There was also some question regarding Darwin's scientific methodology. The rigor that had produced phenomenal success in the physical sciences at that time appeared to be lacking. His friendly mentor, the noted geologist Adam Sedgwick, in a letter to Darwin (Darwin, 1888, vol. 2, p 248-249) stated:

I have read your book with more pain than pleasure. Parts of it I admired greatly, parts I laughed at till my sides were almost sore; other parts I read with absolute sorrow, because I think them utterly false and grievously mischievous. You have deserted — after a start in that tram-road of all solid physical truth — the true method of induction, and started us in machinery as wild, I think, as Bishop Wilkins's locomotive that was to sail with us to the moon. Many of your wide conclusions are based upon assumptions which can neither be proved nor disproved, why then express them in the language and arrangement of philosophical induction?

This brief survey of the controversial milieu in which Darwinism rapidly won over most of scientific opinion raises the question of why it triumphed. This editorial does not propose to give an answer to this complex issue, but it can be definitely stated that victory was not on the basis of overwhelming scientific evidence. That it occurred is a matter of great import. The historian Nordenskiöld (1928, p 477) further emphasizes this: "The factors governing the victory of Darwinism thus represent a problem of the greatest importance, not only in the history of biology, but also in that of culture in general."

The triumph of Darwinism seems to indicate that the intellectual matrix in which one finds himself may dictate one's opinion as to what is true more than objective knowledge does. This should be a matter of serious concern for science. It is part of the reason why Thomas Kuhn (1970, p 151) in his book *The Structure of Scientific Revolutions* refers to a change of paradigm as a "conversion experience." One wonders how many modern scientific concepts have a weak objective basis. If science is to efficiently arrive at truth, as it should strive to do, it must studiously avoid selecting paradigms which do not have a sound empirical foundation.

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