

Charles Darwin & the origins of Origin

In his annual report for 1858, Thomas Bell, President of the Linnean Society of London (named after the eighteenth-century Swedish biologist Carolus Linnaeus) told its members, 'The year has not been marked by any of those striding discoveries which revolutionize the department of science on which they bear.' This was to prove a stupendous gaffe, because it failed to recognize the potential impact of two papers that had been read to the society in July of that year. One was written by the naturalist Alfred Russel Wallace while recovering from illness on the small island of Ternate, between New Guinea and Borneo; the other was the work of a middle-aged naturalist whose ideas were about to take the world by storm. Those ideas penetrate so deeply into our subject that we will need to examine them at some length.

Origins

Charles Darwin was born in Shrewsbury in 1809. His father was a doctor but, after an abortive attempt to study medicine at Edinburgh University, Charles switched to Cambridge, where he read classics, mathematics and theology in preparation for what was hoped would be a career in the Church of England ministry. He did poorly in classics, and even worse in mathematics. His theology results helped him to leave Cambridge in 1831 with a BA degree, though he had already turned his back on the idea of entering the ministry. Instead, and in spite of having no training in the subject, he jumped at the offer of a place as a naturalist on HMS Beagle, which left that year for an extensive surveying expedition off the coast of South America and elsewhere. The expedition was to last five years; its repercussions were to produce what has been called 'by far the most potent single factor to undermine popular belief in the existence of God in modern times'.

Darwin had grown up with the more or less universally accepted belief that God had not only created the world but separately created different living species with characteristics suited to their environment. However, as the Beagle's expedition went on, he began to question this. A year after he returned home he wrote, 'I am almost convinced (quite contrary to the opinion I started with) that species are not (it is like confessing to a murder) immutable.' He was by no means the first person to come up with the theory of the evolution of species. Some of the earliest ideas can be traced back as far as the Greek philosopher Anaximander (c. 610 - c. 547 B.C.); there was considerable speculation on the subject in the seventeenth century; and in the eighteenth century three French scientish, Benoit de Maillet, Pierre de Maupertuis and the Comte de Buffon, produced material on most of the major themes that were later popularized by Darwin. Another Frenchman, naturalist Jean Baptiste de Lamarck, promoted a model of human evolution which greatly influenced Darwin, and a recent authority says that of the two (Lamarck was the one possessing the most extensive and systematic knowledge of biological facts'. Yet one of the biggest impacts on Darwin's thinking came from his own grandfather, Erasmus Darwin. A highly successful physician, who wrote many books of

science and poetry, his biographer called him 'the greatest Englishman of the eighteenth cenhiry', and in Zoonomia, published sixty-four years before Charles hit the headlines, 'He clearly anticipated practically all the basic arguments and mechanisms of evolution later made famous (possibly plagiarized) by his grandson.'

For some twenty years, Darwin worked on the manuscript of an enormous volume on evolution, encouraged by Charles Lyell, a qualified lawyer who became the most influential (though amateur) geologist of his day. Meanwhile, in the course of his work in what was then Malaya, Alfred Wallace published a paper on species in 1855, and both Darwin and Lyell quickly realized that it came close to pre-empting the major work which they had in mind. In spite of increasing pressure from Lvell to get his book published, Darwin insisted on doing even more research, but in 1858 Wallace wrote to him setting out an evolutionary scheme, including the origin of species, which had suddenly come to him in the course of a tropical illness. Darwin was horrified, and wrote to Lyell, 'All my originality, whatever it may amount to, will be smashed... 1 never saw a more striking coincidence.' The crisis, of which Wallace was blissfully unaware, was solved when Lyell and others arranged for Wallace's paper and one hurriedly compiled by Darwin to be read together at the Linnaean Society on 1 July 1858. To avoid an even greater crisis, Darwin reworked and condensed his massive manuscript and had it published the following year with the title The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life, now usually referred to as The Origin of Species or simply Origin. Writing about the part Wallace and Darwin played in popularizing the theory of evolution, Henry Morris comments, 'Herein was a marvellous thing! A theory that Darwin had been developing for twenty years, in the midst of a world centre of science and with the help and encouragement of many scientific friends, was suddenly revealed in full to a self-educated spiritist, halfway around the world, alone on a topical islands and in the throes of a two-hour malarial fit. This is not the usual route to scientific discovery!' Be that as it may, Wallace could have had no inkling that his ideas would cause such a stir, nor could Darwin have imagined that a century later Origin would be referred to as 'one of the most important books ever written' and 'a book that shook the world'.

For century after century the theory of evolution was kept from becoming popular by the dominance of an equally godless theory, that of spontaneous generation. Looking back it seems strange that fossils were not brought forward as evidence for evolution, since they are considered so important today. People certainly knew about them, for fossils were first noticed by the early Greeks. They recognized them for what they are, the petrified remains of living organisms. However, by the Middle Ages, fossils were no longer reckoned to have anything to do with living animals. People believed them to have been formed in stone by the action of the sun and stars and this superstitious view kept them from being investigated scientifically.

One of the first men to look at fossils scientifically was Ristoro d'Arezzo, a man who obviously believed in the Bible. In 1282 he suggested that all the evidence supported the Bible's account of a world-wide flood. For example, he dug up the bones of fishes as well as sea shells near a high mountain peak. About 1500, Leonardo da Vinci discovered the fossils of marine creatures while building a canal in northern Italy. The work of both these men was ignored and forgotten for hundreds of years, but it does show that the early work on fossils did not suggest the idea of evolution.

In the seventeenth century, a man called Steno put forward ideas as a result of studying rocks and fossils. He was the first to suggest that the rock strata represent layers of rock deposited on top of one another at different times in the earth's history, with the oldest layer to be found at the bottom. Steno's arguments did not lead to any general acceptance of evolutionary ideas. On the contrary, the end of the seventeenth century has been described as the 'heyday' of the Diluvialists (those who believed that geological phenomena could be explained by the Flood). One man contributed greatly to this 'heyday'. This was John Woodward, a learned doctor, who has been sarcastically described as 'the Grand Protector of the Universal Deluge'.

Non-Christian authors have praised Woodward's work and have described him as being a very careful and exact investigator. His painstaking study of the earth's rocks and fossils certainly did not lead him to a belief in evolution. He concluded that all the evidence, far from suggesting that rock strata had been laid down at different times, spoke instead of a single world-wide flood - the Biblical deluge. The fossils, he said, were on the whole the remains of animals that had died in the Flood.

As the science of palaeontology developed and became established, it was a belief in the Flood that was often driving it. For the early palaeontologists, the study of fossils simply did not suggest the idea of evolution. Instead, the great fossil graveyards that began to come to light spoke more clearly of catastrophe. It is no exaggeration to say that virtually all the early palaeontologists were opposed to evolution, a fact acknowledged by Charles Darwin.

However, as we have seen evolutionary thought developed in the centuries before Darwin, but his is the name supremely associated with the idea. Charles Darwin did not really say anything new. Most of the elements contained in his theory had already been suggested before, but they had never previously been presented so coherently or with so much supporting evidence.

What did Danwin's theory actually say? He started by assuming that the young always differ in many small ways fiom their parents and that these differences can be passed on to later generations. He argued that animals possessing favourable variations will increase in number, while others will tend to die out. By this process of selection, Darwin said, new species naight eventually arise. Darwin presented much evidence for his theory, but he himself said that he had been led to it through observations he had made in the Galapagos Islands off the coast of South America. Darwin noticed that the species on the Galapagos resembled those of the South American mainland but were not identical with them. For example, there seemed to be a special race of giant tortoise on each island. Danwin began to think that all these races had descended fiom a common type.

In the months and years following his return to England, Darwin developed his views on evolution, taking them further and suggesting that different species, rather than just races, could descend from a common ancestor. He was, however, reluctant to publish these ideas, probably because of the storm of controversy that he knew would follow publication of such a theory. After he had hesitated for twenty years, he finally published his book.

We need to remember that the main thrust of Darwin's evidence concerned the different species on the Galapagos Islands. He argued convincingly that here was proof that one species of finch had evolved into another. He then suggested that in a similar way, all living organisms had evolved from a very simple organism.

Christians rose up in arms against everything that Darwin said. They seemed to think that if it was proved that one species of finch had evolved into another then Darwin's whole theory was proved. But what does the Bible actually have to say about species? Proverbs 30:5-6 says, 'Every word of God is flawless; he is a shield to those who take refuge in him. Do not add to his words or he will rebuke you and prove you a liar.' How often Christians have dishonoured the Lord by insisting on something that the Bible does not in fact say, and then being found to be liars! Does the Bible say that species cannot change? It certainly says that God created animals according to their kinds, but is a species the same thing as a kind'?

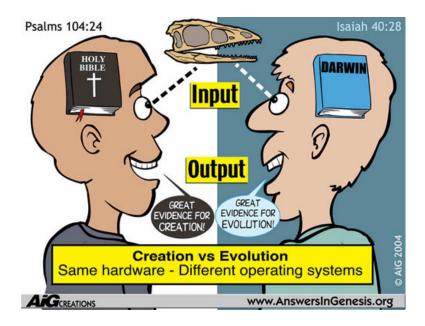
What is a kind?

The idea that species cannot change was certainly not an article of the church before the eighteenth century. It was then considered quite in accord with the Bible to believe that they could change, though not in the direction of greater complexity. It was not until the eighteenth century that the view became widespread that species cannot change, that they are fixed' or immutable'.

I would like to suggest that what the Bible describes as a 'kind' is not necessarily the same thing as a species. If Christians had not then been so insistent about the 'fixity of species' they might have noticed the sort of changes that Darwin saw in the Galapagos. They might have been able to give a better explanation for them than 'evolution' (see other articles). They might have been able to forestall Darwin and show that while he was describing a true phenomenon (Natural Selection), it did not necessarily prove evolution.

The Christians of Darwin's day, then, were meaning to be faithful when they insisted that species could not change. They did not realize that they were fighting for a man-made tradition, rather than for what the Bible actually says. Their stand did harm in two ways. First, it hindered the advance of biology, and there was therefore a reaction in favour of Darwinism. Second, it meant that when Christians argued against evolution, they were very often arguing against the wrong thing. It was not the change in species that was the problem, but rather the idea that animals can evolve into more complex forms.

Christians may quite happily concede that one species of finch might change into another. What they do not believe and must fight with all their strength, is the view that this process can cause changes in the direction of greater complexity. Man has not evolved from the apes; mammals have not evolved from reptiles. God created man, fish, birds and reptiles according to their kinds in a few days supernaturally and all the glory for that creation belongs to him. Many scientists are now critical of evolution and the whole creation/evolution debate has opened up again. Christians have every reason for vigorously asserting that the scientific evidence unmistakably supports the Word of God and points to the work of a mighty Creator.



Same hardware - different operating systems

If you were asked 'Who have the most evidences - creationists or evolutionists?' what would you say?

The answer is neither. We all live in the same universe and look at the same evidences.

For example, creationists look at a fossil and come up with one set of conclusions about it, while evolutionists look at the same fossil and come up with a very different set of conclusions. Why are the conclusions different? Because the starting beliefs of the people interpreting the evidence are different.

Too many people think that 'evidence', all by itself, determines or shapes a belief system. However, the evidence is not really the basis for belief; rather it's the belief system that determines how the evidence is understood.

Are evidences important? Sure, but we need to be sure we have the correct system of beliefs in place that will allow us to make correct interpretations of the evidence.

Psalm 104:24

O LORD, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches.

Isaiah 40:28

Hast thou not known? hast thou not heard, that the everlasting God, the LORD, the Creator of the ends of the earth, fainteth not, neither is weary? there is no searching of his understanding.