

theory of evolution has become immeasurably strengthened by the increase of knowledge. Indeed, we should not any longer think of evolution as being a theory but as being a fact. It may safely be said that at the present day there is not a single biologist of repute who has any doubt that evolution has taken place. Evolution to the biologist at least is a living conviction. He looks upon evolution as as certain a historical fact as the Norman Conquest of England, or the landing of the Pilgrim Fathers on the shore of Massachusetts Bay: and any system of philosophy or theology which is unable to assimilate the great out-standing fact of evolution seems to him to have its foundations laid upon the sand.

One of the best proofs that organic evolution is now universally regarded as a fundamental fact, a foundation stone of modern Biology, is the great celebration which took place in 1909 at Cambridge, at which I had the honour to be present as representing this University. Several hundred of the world's most famous men, leaders of thought in Science, Philosophy and Religion, assembled to do honour to the great name of Charles Darwin, on the occasion of the centenary of his birth and the fiftieth anniversary of the publication of the "*Origin of Species*." Anyone who wishes to understand the profound influence upon modern thought of the establishment of the fact of organic evolution could not do better than read the fine volume issued by the Cambridge University Press, called *Darwin and Modern Science*, which contains 29 articles, each by a writer of world-wide eminence, dealing with the modern aspects of the great theory.

The most important recent advances in Biology seem to me to be those which have taken place as a natural consequence of the establishment of the fact of evolution. Darwin's theory to explain the fact of evolution was that new species arise from old ones by the summation through natural selection of certain characters in particular directions very gradually, in the course of a long series of generations. This theory, however, as a result of new observations and experiments, has been replaced in many minds by the Mutation Theory, according to which new species arise from old ones by jumps—in the course of a single generation. The parent species occasionally gives rise to filial descendants