

Of course, this fact cannot be proved *exactly*. We cannot explain all the innumerable physical and chemical processes, all the physiological mutations, which have led during untold millions of years from the simplest Monera and from the unicellular Protista upwards to the chimpanzee and to man. But the same consideration applies to all historical facts. We all believe that Aristotle, Cæsar, and King Alfred did live; but it is impossible to give a proof within the meaning of modern exact science. We believe firmly in the former existence of these and other great heroes of thought, because we know well the works they have left behind them, and we see their effects in the history of human culture. These indirect arguments do not furnish stronger evidence than those of our history as vertebrates. We know of many Jurassic mammals only a single bone, the under jaw. We all believe that these mammals possessed also an upper jaw, a skull, and other bones. But