

That even the *origin of man* must be explained by this general organic process of transmutation, and that it is simply as well as naturally explained by it, has, I believe, been sufficiently proved in my last chapter but one. I cannot, however, avoid here once more directing attention to the inseparable connection between this so-called "theory of apes," or "pithecoid theory," and the whole Theory of Descent. If the latter is the greatest *inductive law* of biology, then it of necessity follows that the former is its most important *deductive law*. They stand and fall together. As all depends upon a right understanding of this proposition, which in my opinion is very important, and which I have therefore several times brought before the reader, I may be allowed to explain it here by an example.

In all mammals known to us the centre of the nervous system is the spinal marrow and the brain, and the centre of the vascular system is a quadrupal heart, consisting of two principal chambers and two ante-chambers. From this we draw the general inductive conclusion that all mammals, without exception, those extinct, together with all those living species as yet unknown to us, as well as the species which we have examined, possess a like organization, a like heart, brain, and spinal marrow. Now if, as still happens every year, there be discovered in any part of the earth a new species of mammal, a new species of marsupial, or a new species of deer, or a new species of ape, every zoologist knows with certainty at once, without having examined its inner structure, that this species must possess a quadruple heart, a brain and spinal marrow, like all other mammals. Not a single naturalist would ever think of supposing that