

mammals, and thus continually further back to lower stages of the vertebrata down to their lowest invertebrate roots, nay, even down to a simple plastid—as a general *theory*. On the other hand, the special tracing of the human pedigree, the closer definition of the animal forms known to us, which either actually belong to the ancestors of man, or at least stand in very close blood relationship to them, will always remain a more or less approximate *hypothesis* of descent, all the more in danger of deviating from the real pedigree the nearer it endeavours to approach it by searching for the individual ancestral forms. This state of things results from the immense gaps in our palæontological knowledge, which can, under no circumstances, ever attain to even an approximate completeness.

A thoughtful consideration of this important circumstance at once furnishes the answer to a question which is commonly raised in discussing this subject, namely, the question of scientific *proofs for the animal origin of the human race*. Not only the opponents of the Theory of Descent, but even many of its adherents who are wanting in the requisite philosophical culture, look too much for “signs” and for special empirical advances in the science of nature. They await the sudden discovery of a human race with tails, or of a talking species of ape, or of other living or fossil transition forms between man and the ape, which shall fill the already narrow chasm between the two, and thus empirically “prove” the derivation of man from apes. Such special manifestations, were they ever so convincing and conclusive, would not furnish the proof desired. Unthinking persons, or those unacquainted with the series of biological phenomena, would still be able to maintain the