

To assume that they are so involves us in inextricable difficulties—such as those, for instance, encountered in the comparison of the Annelid gastrula with that of the Chordates, or the comparison of the sexual and asexual modes of development in Tunicates, Bryozoa, Worms, and Coelenterates." . . . "The relationship of the inner and outer layers in the various forms of gastrulas must be investigated, not only by determining their relationship to the adult body, but also by tracing out the cell-lineage or cytogeny of the individual blastomeres from the beginning of development."

In stating what is called "the evidence for evolution" it is usual to refer to a series of embryological facts, such as the occurrence of gill-clefts in the embryos of higher Vertebrates, or the more or less fish-like stages in the development of the frog; but it is erroneous to suppose that the evolution-doctrine was, or can be, proved by the laborious induction of these and a thousand other facts. Embryological facts are only evidences of evolution in the sense that an acquaintance with them might possibly suggest the evolution-idea to an acute and unprejudiced mind, or in the sense that they are interesting and somewhat obtrusively puzzling phenomena, of which the evolution-theory furnishes a lucid interpretation, or in the sense that none of them contradicts the idea at the heart of the theory. There is no historical evidence which even suggests that the evolution-theory was arrived at by an inductive process, unless unconscious induction be included in the phrase. An adequate scientific doctrine should furnish an interpretation of the facts, which is self-consistent, and consistent with other doctrines, and this is what is claimed for the doctrine of descent. Therefore it must be said, that only a misunderstanding of the nature of scientific progress can explain the position of those who maintain that there is a vicious circle in corroborating the evolution-doctrine from embryology, and at the same time recognizing the evolution-doctrine as a suggestive influence in embryology.

As an instance of the influence of the evolution-