

mammalian orders and families. Now, it is precisely in the same succession that we also see the ancestors of man, and of the higher mammals, appear one after the other in the earth's history; first fishes, then amphibians, later the lower, and at last the higher mammals. Here, therefore, the embryonic development of the individual is completely parallel to the palæontological development of the whole tribe to which it belongs, and this exceedingly interesting and important phenomenon can be explained only by the interaction of the laws of Inheritance and Adaptation.

And, indeed, in order properly to understand and to apply the biogenetic fundamental law, it must be remembered that the hereditary repetition of the original chain of primary forms is but seldom (or, strictly speaking, never!) perfectly complete in the corresponding and parallel chain of embryonic forms. For the changing conditions of existence exercise their influence upon every single embryonic form as well as upon the fully developed organism. Besides, the law of abridged inheritance constantly endeavours to effect a simplification of the original process of development. On the other hand, however, the embryo may, by its adaptation to new conditions of life (*e.g.* by the development of protecting coverings), acquire new forms, which were wanting in the original figure of the primary form that had been transmitted to it by inheritance. Hence the figure of the embryo must necessarily (especially in its later stages of development) deviate more or less from the original figure of the corresponding primary form, and, indeed, the more so the more highly developed the organism is.

Accordingly, all the phenomena of the embryonic or