much is owing to Inheritance, and how much to Adaptation. All characters of form, by which organisms are distinguished, are caused *either* by Inheritance or by Adaptation; but as both functions are continually interacting with each other, it is extremely difficult for the systematic inquirer to recognize the share belonging to each of the two functions in the special structure of individual forms. This is, at present, all the more difficult, because we are as yet scarcely aware of the immense importance of this fact, and because most naturalists have neglected the theory of Adaptation, as well as that of Inheritance. The laws of Inheritance, which we have just discussed, as well as the laws of Adaptation, which we shall consider directly, in reality form only a small portion of the phenomena existing in this domain, but which have not as yet been investigated; and since every one of these laws can interact with every other, it is clear that there is an infinite complication of physiological actions, which are at work in the construction of organisms.

But now, as to the phenomenon of variation or adaptation in general, we must, as in the case of inheritance, view it as a quite universal, physiological fundamental quality of all organisms, without exception—as a manifestation of life which cannot be separated from the idea of an organism. Strictly speaking, we must here also, as in the case of inheritance, distinguish between Adaptation itself and Adaptability. By Adaptation (Adaptio), or Variation (Variatio), we understand the fact that the organism, in consequence of influences of the surrounding outer world, assumes certain new peculiarities in its vital activity, composition, and form which it has not inherited from its parents; these acquired individual qualities are opposed to