

accordingly as we have taken tea or coffee, wine or beer, before or during our work. Our moods, wishes, and feelings are quite different when we are hungry and when we are satisfied. The national character of Englishmen and of the Gauchos in South America, who live principally on meat and food rich in nitrogen, is wholly different from that of the Irish, feeding on potatoes, and that of the Chinese, living on rice, both of whom take food deficient in nitrogen. The latter also form much more fat than the former. Here, as everywhere, the variations of the mind go hand in hand with the corresponding transformations of the body; both are produced by purely material causes. But all other organisms, in the same way as man, are varied and changed by the different influences of nutrition. It is well known that we can change in an arbitrary way the form, size, colour, etc., of our cultivated plants and domestic animals, by change of food; that, for example, we can take from or give to a plant definite qualities, accordingly as we expose it to a greater or less degree of sunlight and moisture. As these phenomena are generally widely known, and as we shall proceed presently to the consideration of the different laws of adaptation, we will not dwell here any longer on the general facts of variation.

As the different laws of transmission may be naturally divided into the two series of conservative and progressive transmission, so we may also distinguish between two series of the laws of adaptation, first, the series of laws of *indirect*, and secondly, the series of laws of *direct* adaptation. The latter may also be called the laws of actual, and the former the laws of potential adaptation.

The first series, comprising the phenomena of *indirect*.