

author on the tendency to reversion in all hybrids. The conclusion that the condition of the parent-species, as affected by culture, is one of the proximate causes leading to reversion, agrees well with the converse case of domesticated animals and cultivated plants being liable to reversion when they become feral; for in both cases the organisation or constitution must be disturbed, though in a very different way.⁵³

Finally, we have seen that characters often reappear in purely-bred races without our being able to assign any proximate cause; but when they become feral this is either indirectly or directly induced by the change in their conditions of life. With crossed breeds, the act of crossing in itself certainly leads to the recovery of long-lost characters, as well as of those derived from either parent-form. Changed conditions, consequent on cultivation, and the relative position of buds, flowers, and seeds on the plant, all apparently aid in giving this same tendency. Reversion may occur either through seminal or bud generation, generally at birth, but sometimes only with an advance of age. Segments or portions of the individual may alone be thus affected. That a being should be born resembling in certain characters an ancestor removed by two or three, and in some cases by hundreds or even thousands of generations, is assuredly a wonderful fact. In these cases the child is commonly said to inherit such characters directly from its grandparent, or more remote ancestors. But this view is hardly conceivable. If, however, we suppose that every character is derived exclusively from the father or mother, but that many characters lie latent or dormant in both parents during a long succession of generations, the foregoing facts are intelligible. In what manner characters may be conceived to lie latent, will be considered in a future chapter to which I have lately alluded.

Latent Characters.—But I must explain what is meant by

⁵³ Prof. Weismann, in his very curious essay on the different forms produced by the same species of butterfly at different seasons ('*Saison-Dimorphismus der Schmetterlinge*,' pp. 27, 28), has come to a similar con-

clusion, namely, that any cause which disturbs the organisation, such as the exposure of the cocoons to heat or even to much shaking, gives a tendency to reversion.