

single species, this variation has been acquired by the progenitors of the several sorts, and has then been transmitted by inheritance.

The *law of homotopic transmission*, which is most closely connected with the last-mentioned law, and which might be called the law of transmission in corresponding parts of the body, may also be very distinctly recognized in pathological cases of inheritance. Large moles, for example, or accumulations of pigment in several parts of the skin, tumours also, often appear during many generations, not only at the same period of life, but also in the same part of the skin. Excessive development of fat in certain parts of the body is likewise transmitted by inheritance. Above all, it is to be noted that numerous examples of this, as well as of the preceding law, may be found everywhere in the study of embryology. Both the *law of homochronous and homotopic transmission are fundamental laws of embryology, or ontogeny*. For these laws explain the remarkable fact that the different successive forms of individual development in all generations of one and the same species always appear in the same order of succession, and that the variations of the body always take place in the same parts. This apparently simple and self-evident phenomena is nevertheless exceedingly wonderful and curious; we cannot explain its real causes, but may confidently assert that they are due to the direct transmission of the organic matter from the parental organism to that of the offspring, as we have seen above in the case of the process of transmission in general, by a consideration of the details of the various modes of reproduction.

The different laws of conservative and of progressive trans-