

Professors Steenstrup, Owen, and others, within a few years, respecting what they call *alternate generation*, or *partheno-genesis*, have been thought favourable to the hypothesis of development. Among the mollusca, the polyparia, the entozoa, and infusoria, it is found that, in some species, the result of sexual union is the production of a larva without sex, and, therefore, incapable of propagating in the usual way. Yet that larva can of itself produce another larva quite different from itself, and this larva another, and so on, sometimes for eight or ten generations, when the spermatic force seems to be exhausted, and a progeny exactly like the original parents that started the series is produced, capable of giving rise to another and a similar series. Here, then, we find a succession of progeny for several generations, and all quite unlike one another, yet without any immediate parental agency. Why is it not an example of spontaneous generation? and why may not new species be produced in this manner?

There are two facts prominent on this subject which afford a full answer to such questions. One is, that these generations of larvae always begin with the spermatozoon and the ovum of parents; the other is, that the series always closes, if allowed to run its natural course, in individuals with sex, exactly identical with those that started it; so that the species always remains entire. The whole process is simply one of the infinitely varied modes which nature employs to preserve and perfect the species. The process never stops with any of the larvae intervening between the fertile parents at the beginning, and the fertile individuals at the end of the series. Professor Owen supposes, certainly with much plausibility, that some of the original germ-cells, not wanted for the production of the first larva, pass on to form the successive generations, till the series is complete; so that, after all, the case is not an exception to the general law of reproduction by parental agency; and instead of sustaining, it certainly goes against, the notion of spontaneous generation and of transmutation of species; because it shows how far parental influence may reach, and how tenacious nature is of specific distinctions. For the same reasons, the case affords a presumption against other alleged cases of equivocal generation and metamorphoses of species.<sup>1</sup>

<sup>1</sup> For the details of this remarkable subject, see the 'Partheno-