

before them. The union of two widely differing individuals physically can hardly with one fell swoop establish a type, because necessarily more or less of a process of evolution must be undergone. The ovary of the mother is as old as the mother herself; it was developed in her own embryonic state. The ova it contains in her adult life were actually or potentially present before she was born, or grew as she grew. There is more reason to look on them as collateral with the mother than as parts of the mother.

How, then, can a child have transmitted from its immediate progenitors the small jaw of one and large teeth of the other?

Again, suppose for argument that from this cause a child was delegated to acquire any irregularity, why should it be so vicious and unseemly as to wait over until the permanent teeth erupt and not manifest itself at all during the life of the deciduous teeth? (Cases of irregularity of the deciduous teeth being rare indeed.) It is true, of course, that the jaws are only partially developed at that time, but nevertheless much the same relative proportion exists.

Some small amount of correspondence with histologists, embryologists, and biologists on this point reveals a singular concurrence in the opinion that is best expressed in the following quotation from a letter of one of them: "I can see no reason why, if the child inherited teeth and jaws from different parents, the irregularity should not appear as much in one set of teeth as the other."

Are irregularities of the teeth transmitted?

A current text-book contains the following statement: "When the irregularity is known to have been acquired in the parent of the child, and thus to have been transmitted but once, the difficulties in the case are not so marked because the type has scarcely been confirmed."

The author assumes, it has been noticed, that acquired characters can be transmitted; then goes on to elucidate the case. This, to say the least, is unwarranted and misleading; the scientific world is and has been for years poised in doubt on this question.

Weissmann says, "The inheritance of acquired characters has never been proved either by means of direct observation or experiment."

Galton says, "I am unprepared to say more than a few words on this obscure, unsettled, and much discussed subject of the possibility of transmitting acquired faculties."

Darwin himself admits that his well-known hypothesis was provisional, but necessary to explain his development of species.