

generation, as the production of offspring like their parents. This view, as we shall see in a future chapter, is not theoretically probable, though practically it holds good. The saying that "like begets like" has, in fact, arisen from the perfect confidence felt by breeders, that a superior or inferior animal will generally reproduce its kind; but this very superiority or inferiority shows that the individual in question has departed slightly from its type.

The whole subject of inheritance is wonderful. When a new character arises, whatever its nature may be, it generally tends to be inherited, at least in a temporary and sometimes in a most persistent manner. What can be more wonderful than that some trifling peculiarity, not primordially attached to the species, should be transmitted through the male or female sexual cells, which are so minute as not to be visible to the naked eye, and afterwards through the incessant changes of a long course of development, undergone either in the womb or in the egg, and ultimately appear in the offspring when mature, or even when quite old, as in the case of certain diseases? Or again, what can be more wonderful than the well-ascertained fact that the minute ovule of a good milking cow will produce a male, from whom a cell, in union with an ovule, will produce a female, and she, when mature, will have large mammary glands, yielding an abundant supply of milk, and even milk of a particular quality? Nevertheless, the real subject of surprise is, as Sir H. Holland has well remarked,¹ not that a character should be inherited, but that any should ever fail to be inherited. In a future chapter, devoted to an hypothesis which I have termed pangensis, an attempt will be made to show the means by which characters of all kinds are transmitted from generation to generation.

Some writers,² who have not attended to natural history, have attempted to show that the force of inheritance has been much exaggerated. The breeders of animals would smile at such simplicity; and if they condescended to make any

¹ 'Medical Notes and Reflections,' 3rd edit., 1855, p. 267.

² Mr. Buckle, in his 'History of Civilisation,' expresses doubts on the subject, owing to the want of sta-

tistics. See also Mr. Bowen, Professor of Moral Philosophy, in 'Proc. American Acad. of Sciences,' vol. v. p. 102.