

or madness has been hereditary in a family, the deeper is the root of the evil, and the more probable it is that all succeeding generations will suffer from it.

We may conclude the consideration of the phenomena of inheritance with the two very important laws of *homotopic* and *contemporaneous transmission by inheritance*. We understand by them the fact that changes acquired by an organism during its life, and transmitted to its descendants, appear in the same part of the body in which the parental organism was first affected by them, and that they also appear in the offspring at the same age as that at which they did so in the parent.

*The law of contemporaneous or homochronous transmission*, which Darwin calls the law of "transmission in corresponding periods of life," can be shown very clearly in the transmission of diseases, especially of such as are recognized as very destructive, on account of their hereditary character. They generally appear in the organism of the child at the time corresponding with that in which the parental organism contracted the disease. Hereditary diseases of the lungs, liver, teeth, brain, skin, etc., usually appear in the descendants at the same period, or a little earlier than they showed themselves in the parental organism, or were contracted by it. The calf gets its horns at the same period of life as its parents did. In like manner the young stag receives its antlers at the same period of life in which they appeared in its father or grandfather. In every one of the different sorts of vine the grapes ripen at the same time as they did in the case of their progenitors. It is well known that the time of ripening varies greatly in the different sorts; but as all are descended from a