

modifications. (2) No one doubts that functional and environmental variations often *reappear*. Many doubt, however, that they reappear *because* they have been transmitted. Another alternative is obviously open. The conditions which originally brought about a given change may still persist, and may hammer the same effect upon the offspring which they wrought upon the parent.

Doubt as to the transmission of acquired characters is certainly not novel, though Weismann has the credit of crystallizing out the scepticism. Brock has noticed that the editor, whoever he was, of Aristotle's *Historia Animalium* seems to have differed from his master on this subject. Aristotle had referred to the inheritance of the exact shape of a cautery mark; but the editor insinuated a doubt as to apparent instances of this sort.

In modern times Kant was one of the first to express a firm disbelief in the transmission of individual peculiarities, and Bonnet was of the same opinion, but neither seems to have defined exactly what they intended to exclude from inheritance.

James Cowles Prichard (b. 1786), a well-known anthropologist, anticipated as early as 1826 some of the characteristically modern views on evolution. His importance has been recently expounded by Prof. E. B. Poulton. In the second edition of his *Researches into the Physical History of Mankind* (1826) Prichard stated the case in favour of organic evolution, recognized the operation of natural and artificial selection, and not only drew a clear distinction between acquired and congenital characters, but argued that the former were not transmitted. He was not rigidly consistent, and his convictions seem to have weakened in after years, but his anticipation of one of Weismann's positions by more than half a century is remarkable.

Galton preceded Weismann not only in abandoning the Lamarckian position, but also in outlining the conception of germinal continuity. Galton had been led to doubt the transmission of acquired modifications, partly on general grounds and partly because his experiments on the transfusion of blood in rabbits had forced him