

volved in the manner in which our senses of sight and touch combine and arrange simple sensations into the whole of a well-ordered perception of space; for we do not become able to appreciate the fact of the slow and gradual growth of this perception, which takes place in the early days of our infancy, till long after we have actually gained full possession of it. Something similar exists with regard to language and thought: we only hear of grammar and logic long after the main difficulties of speech and thinking have been unconsciously mastered, and if it were not for the existence of other languages than our own, and of an erroneous logic as exemplified in errors of calculation and of measurement, it is doubtful whether grammar and logic would have been so early developed. As it is, the physiological problem of the formation of our space perception was actually first forced upon naturalists by the observation of pathological cases, such as the acquisition of sight in later life through couching, the existence of colour blindness, and a variety of optical delusions which still serve as indispensable test cases for the various theories that have been propounded. Only when something turns out to be palpably wrong do we begin to inquire what constitutes the right side of many things.

Thus the cases of Cheselden and Wardrop and the colour blindness of Dalton set physiologists thinking about the genesis of our space and colour perceptions. A very great impetus—perhaps the most valuable of all—was given by Wheatstone's invention of the stereoscope in 1838; an instrument which, as it were through