

a kind of deception, gave to perfectly flat surfaces the vivid appearance of depth and distance. And here we may note, in passing, how it was almost entirely left to foreign thinkers to utilise this remarkable invention for the benefit of the theory of vision and the science of psycho-physics;<sup>1</sup> Whewell having characteristically omitted this epoch-making fact, as in his well-known history he omitted to notice many other contemporary British contributions to science.

Philosophers, who are accustomed to find hidden problems where ordinary persons only see common-sense, had already approached the question of the genesis of our space perception from two definite points of view, which we may, for the sake of convenience, identify with the names of Kant and Herbart. The genetic view associated by the physiologists with the name of Kant, and supposed to have been prepared by Locke, Berkeley, and Hume, was this, that what we know of external things depends upon the peculiarities of our own perceiving

<sup>1</sup> Sir Charles Wheatstone (1802-1875), to whom several inventions of equal scientific and practical interest are due, invented the mirror-stereoscope in 1833. A notice of it was given in Mayo's 'Outlines of Human Physiology,' but neither its theoretical nor its practical importance was recognised till Wheatstone published his paper in the 'Phil. Trans.' in 1838. He there refers to Leonardo da Vinci as having been the only one before him to notice the difference of binocular and monocular vision. Since Wheatstone's invention became known and was perfected by Brewster, Moser, and others, and especially since Helmholtz entered the field with his extensive and

original researches in optics, it has been found that ancient as well as more recent philosophers had approached the subject very closely; and many references are given in the new edition of the 'Physiologische Optik' (1896), p. 840. The invention of photography about the same time (1835, by Daguerre, after extensive and prolonged experiments by himself and Niepce, published in 1839 by Arago), which was of great importance to optical theory, was also for some time singularly little appreciated by theorists. See Rosenberger, 'Gesch. d. Physik,' vol. iii. p. 316. See also Helmholtz's lecture "Ueber das Sehen des Menschen" (1855).