

the stereoscope of Wheatstone; pathological cases, like those of colour-blindness; a host of ingeniously devised experiments, as well as the gift of an exceptionally musical ear,—all these factors, and innumerable others, contributed to the production of these two monumental works, which form an epoch in the history of science as well as of philosophy and psychology. They form the first magnificent examples of the comprehensive application of exact methods to phenomena which had before been treated only fragmentarily, and where the influences of taste, fancy, and belief, the vagueness of metaphysics and the difficulties of nomenclature, had created a confusion which to many must have appeared hopeless. This confusion of language and of terms, of objective observations and subjective fancies, of the data of experience and the prejudices of theory, Helmholtz has done more than any other thinker to unravel.

In his two great treatises on the psycho-physics of the Eye and the Ear, of Vision and of Music, he has drawn two elaborate and detailed charts, which for a long time to come will have to be consulted by those who, in the interests of physics, philosophy, or æsthetics, enter into these mysterious domains. Many celebrated theories or definite aspects and lines of reasoning invented by others, his forerunners or contemporaries, were adopted, but mostly with important modifications. It may be of use to enumerate briefly the principal ones, beginning with the most mathematical and exact and ending with the more general and metaphysical. In the beginning of the century Fourier had shown how any forces of motion in