This theory will not be difficult of comprehension if we bear in mind the results following the violent refraction of pure white light by means of a powerful prism. If we place such a prism in a dark room without a particle of color on its walls, and being entirely divested of any furnishings whatsoever, and admit a ray of light through a small opening so that it will pass through the prism in passing in, the result will be that on the perfectly colorless wall appears a succession of illuminated sections of different colors, so that it is evident that the effect produced is in the light itself and its effect upon the organs of sight and not by any artificial change in the wall itself.

This would prove either that the light is broken up into several parts each possessing a different tint, or that if these broken parts are really colorless that they are different from each other in some vital essential, inasmuch as they affect the retina and intellect in such a manner that they are to the person who views them to all intents and purposes really colored.

The acceptance of the Young-Hemholtz theory accepts the latter hypothesis and also accounts for color blindness—that is the inability to correctly distinguish colors—by the supposition that the nerve fibres which produce certain color sensations are imperfect or absent absolutely.