

position in binocular vision is professedly derived from that of visible direction in monocular vision, it follows that if the latter be destitute of evidence, the former must be given up likewise.

Sir David Brewster has no where formally explained what he means by visible direction; at least he has not done this in those papers in the *Philosophical Magazine*, which are expressly devoted to the proof and illustration of his Law; in consequence of which, the real import of the Law is involved in considerable doubt. But probably Sir David would accept the following as a true statement of what he holds, viz: that the mind, being mysteriously united with the retina as part of the living organism of the body, is immediately cognizant of the affections excited in the retina; and that it refers the affections of which it is thus cognizant to a stimulus situated in the direction of a normal to the retinal surface. A writer in the *Athenæum* for February 7th, of the present year, thus states what he supposes to be Sir David's theory: "The mind, residing as it were in every point of the retina, refers the impression made upon it to a direction coinciding with the last portion of the ray that conveys the impression." This is undoubtedly a mistake. Instead of: *refers the impression to a direction coinciding with the last portion of the ray that conveys the impression*, the statement should have at least been: *refers the impression to a direction perpendicular to the retina at the point where the refracted ray falls upon its surface*. With this alteration, the sentence quoted would substantially agree with what I have expressed. Now it is important to observe at the outset, that, even if it be true that the mind "residing as it were in every point of the retina," or, to use a less objectionable mode of expression, mysteriously united with the retina as part of the living organism of the body, is immediately cognizant of the retinal affections, this is a metaphysical truth, which does not admit of being experimentally demonstrated. It must be established by its proper evidence: and this is of itself enough to shew that Sir David Brewster, in fancying that he has experimentally proved his law of visible direction, must be labouring under some delusion. From the nature of the case, physical experiments are inadequate to establish a law whose necessary basis is a metaphysical principle.

Passing this, however, let us proceed to examine Sir David Brewster's experiments. The following is perhaps the most beautiful and plausible of the *direct* experiments on which he relies in support of his Law: "Having expanded the pupil by belladonna, look directly at a point in the axis of the eye. Its image will be formed by a