



LXIII. Remarks on some curious facts respecting vision described in the Lond. and Edinb. Phil. Mag. for 1834

Lewis Tonna

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LXIII. *Remarks on some curious Facts respecting Vision described in the Lond. and Edinb. Phil. Mag. for 1834.* By LEWIS TONNA.

To the Editors of the Philosophical Magazine.

Gentlemen,

I HAVE just seen a letter from K. relating to "some curious facts respecting vision," which appeared in your Journal for November 1834. I will not trespass further on your pages than to state that for the last six years a similar difference in power of vision has existed in my eyes. By altering the axis of vision of the two eyes, and thus producing a double image of any object, the image offered by the left eye is even less than half the size of the one presented by the right eye. There is also a slight indistinctness in the image, independently of the reduction in size. This affection came on gradually, and was not produced by any disease, either constitutional or local, that I am aware of. Whether I am right in attributing this fact to an undue diminution of convexity in the left eye, similar to that habitual to old age, I know not.

In a sound state of vision, it is doubtless by an habitual and imperceptible exertion of the brain that the images offered by the two eyes are made to coincide and produce the perception of one single image.

In my case the impossibility of producing a coincidence of images of different magnitudes causes a general indistinctness of vision, and I can see objects clearer and better defined with the right eye alone than with both eyes; but on applying a convex lens of great power (which I always use,) to the left eye, the distinctness is restored, and all colours immediately become more vivid. I should be glad to hear the opinion of persons better able than myself to judge of this phænomenon, and whether the use of a lens is judicious. The expansion and contraction of the pupil on sudden exposure to changes of intensity of light, is more sluggish in the left or diseased eye than in the right one. This is the only external difference.

I am, Gentlemen, yours, &c.,

United Service Museum, London,

LEWIS TONNA.

April 16, 1835.

* * We may now state that the author of the paper signed "K." above referred to, was the late lamented Capt. Kater, in whom the disease of vision it describes seems to have been the precursor of death. It was probably almost the last contribution to science of that distinguished natural philosopher.—EDIT.

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