

opposite to the pressure. We may say that, in this case, the effect of the pressure is assimilated to that of light; and as light can strike the part of the nerve which is pressed, only by coming in an opposite direction, the zones of light produced by the mechanical impulse appear in the usual direction of rays impinging upon this part: and consequently, they give the impression of their source being in the opposite quarter. Let us contrast this phenomenon with the following experiment. Let the eyelids be closed, and covered with a piece of black cloth or paper which has a small hole in it; place this hole, not opposite to the pupil, but to the white of the eye: then direct a beam of light upon the whole, and this light will be seen in its true direction. Why is there, in these two cases, a difference in the apparent place from which the light is derived? Is it not that the rays directed upon the eyeball, after striking upon the retina, pierce through it and through the humours of the eye, and impinge upon the retina on the opposite side. This explains why the light excited in the eye shall appear to come from different quarters: but it does not explain why there should not be a double impression — why the beam of light should not influence the retina while penetrating it in the first instance, that is, in passing through it from without inwards, as well as when it has penetrated the humours