

## Serotonin mediation of human [eye] vision (and that of many other animals): The mechanisms involved

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The chemical of mediator of human vision is currently not known. As the eye is the organ of vision, the author studied changes that take place in the cell surface vision receptors of the cornea of the eye during the vision of an object reflected onto a stream of light rays from sunlight or a lighted bush lamp; the arrangement of corneal vision receptors and their interconnecting channels in day light or dim light vision and the effect of sunlight on the eye at the point of waking up from sleep with the eyes still closed. The study found that at the point of waking up from sleep, photons of sunlight rush in a “smoky” or wavy stream into the eye through scores of tiny circular spaces (cell surface vision receptors) in the cornea of the eye, while the eye lids are still closed. It also found that human vision is mediated by the biphasic responses of serotonin at  $\alpha$  and  $\beta$ -sub-units of its own vision receptors in response to excitatory  $\alpha$ -sub-units’ excitation by illuminating sunlight or artificial light reflected into the eye from the surrounds of the external surfaces of an object being viewed by the eye and inhibitory  $\beta$ -sub-units excitation in response to excitation by sunlight or artificial light of lower intensity reflected into the eye from the body of the same object being viewed. Serotonin mediated vision in its vision receptors in the eye, the pineal body, the lateral geniculate body; the visual cortex, the *visio-perceptive area* and in other cortical areas in the presence of all-trans-retinal. The energy level-dependent easy transformation of all-trans retinal to 11-cis retinal is the mystery which enables Serotonin to mediate vision in sunlight with the eyes open and to mediate sleep at night with the eyes closed.

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