

the system, but it can serve as a fatty acid acceptor (5) and is replaceable by other acceptors.

It would appear from the foregoing data that (i) clearing factor is primarily a tissue enzyme and is present in normal rats without the injection of heparin; (ii) clearing factor is a heparin-activated "lipoprotein lipase" that catalyzes the hydrolysis of chylomicrons but not simple triglycerides; and (iii) the incubation of coconut oil with serum makes it available as a substrate for clearing factor perhaps through the formation of a protein-triglyceride complex.

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Exposure Duration in the Perception of Shape

Visual perception is characterized by a compromise between the physical properties of the retinal image and the tendency to recognize the color, size, and shape of objects independently of the specific retinal image pattern. This tendency is described by the terms *color*, *size*, or *shape constancy*, which emphasize the stability of perception under varying conditions of observation (1). For example, when a circular object is presented at various angles to the line of vision, subjects will match the object with ellipses that are more circular than would be predicted from the geometry of the retinal image (2). The matches tend to approach the "law of shape constancy," a theoretical condition in which perceived circularity is independent of the angle of inclination. The data represented by the circles in Fig. 1, obtained for a white disk at a 1.0-sec exposure duration, demonstrate the effect. Matches for all subjects lie above the line representing the "law of the retinal image," a theoretical condition based solely on geometric relationships, and tend by varying degrees, depending upon the subject, to approach the line representing shape constancy.

If the time the subject is allowed to view the test object is reduced to 0.01 sec, crosses of Fig. 1, the matches no longer exhibit the "constancy" effect. The data for all subjects are in good agreement with predictions made on the basis of geometric theory. Similar results were obtained using a half-dollar coin as

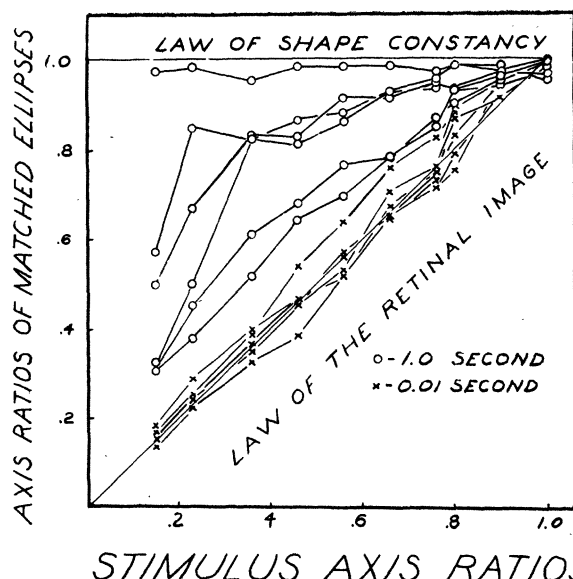


Fig. 1. Axis ratios of matched ellipses as a function of the stimulus axis ratios of a disk test object presented at various angles of inclination for two durations of exposure.

test object and, for either the coin or disk, comparing the 1.0- with a 0.1-sec exposure duration.

The absence of constancy effects and the resulting perceptions that are predictable from retinal image theory have been previously demonstrated for size and brightness judgments (3-5). In all cases, constancy was destroyed by the removal from the visual field, by means of a reduction screen or similar device, of "additional" stimuli other than the discriminative stimulus. The results of the present study (6) demonstrate that, in the case of shape discrimination, reduction of exposure time is perceptually equivalent to the removal of such "additional" stimuli which are necessary for constancy judgments.

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References and Notes

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