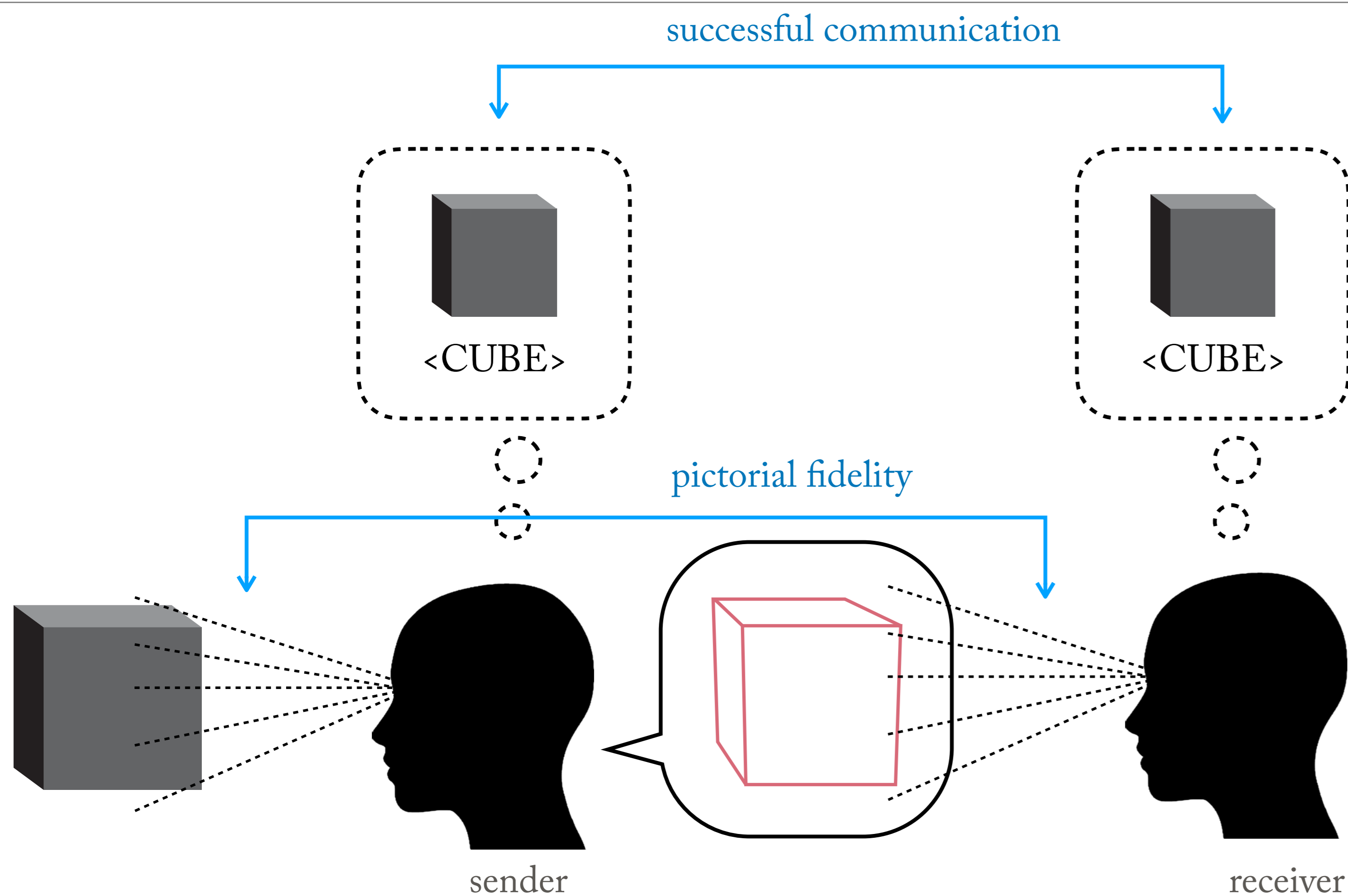


# Pictorial Fidelity



Dictionary: "fidelity: adherence to truth; accuracy in reporting detail".

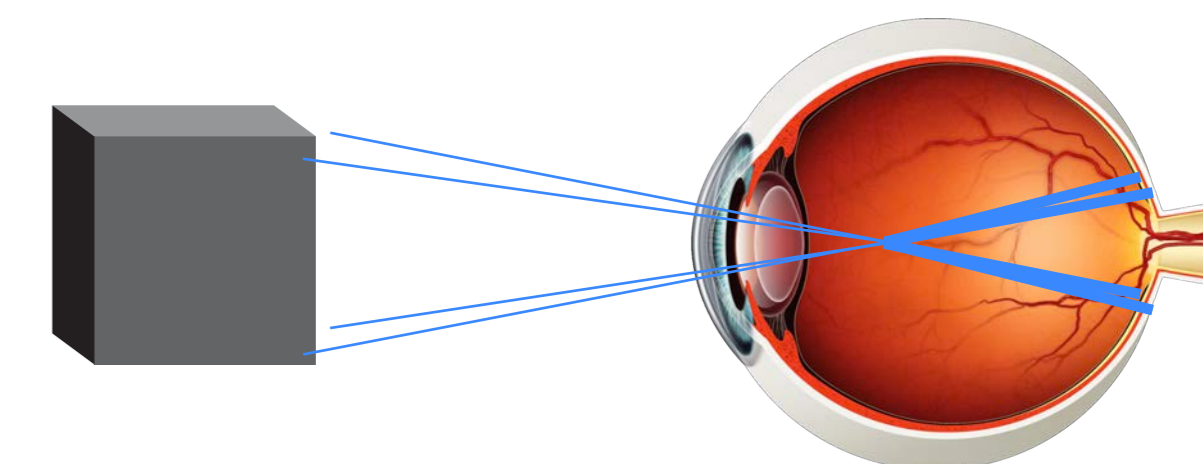
**Fidelity.** "The fidelity of a picture can be defined as the degree to which its surface sends the same sheaf of rays to its station point that is sent to a certain fixed station point at the scene represented." (223)

# Phil 161: Depiction as Re-representation

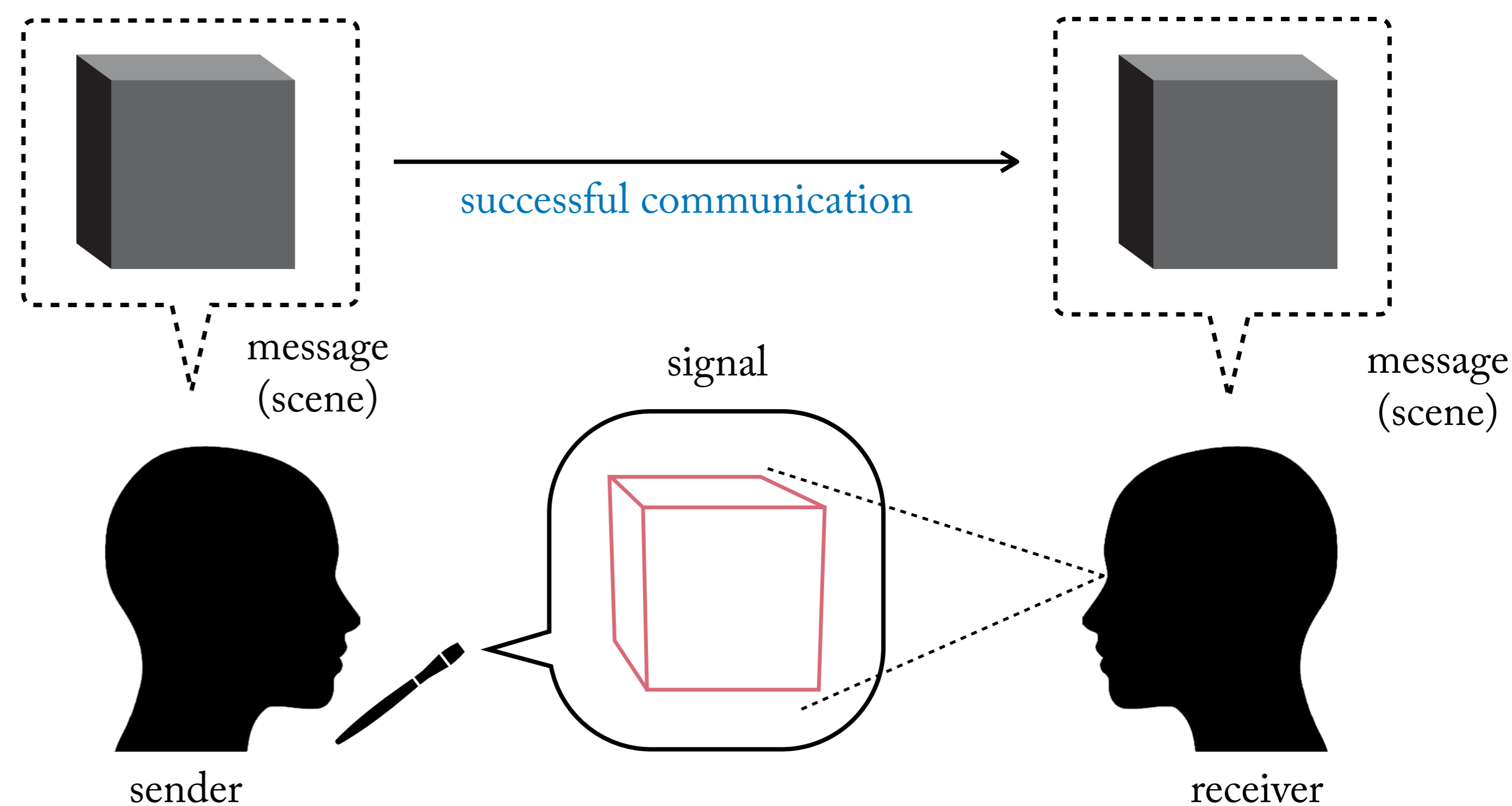
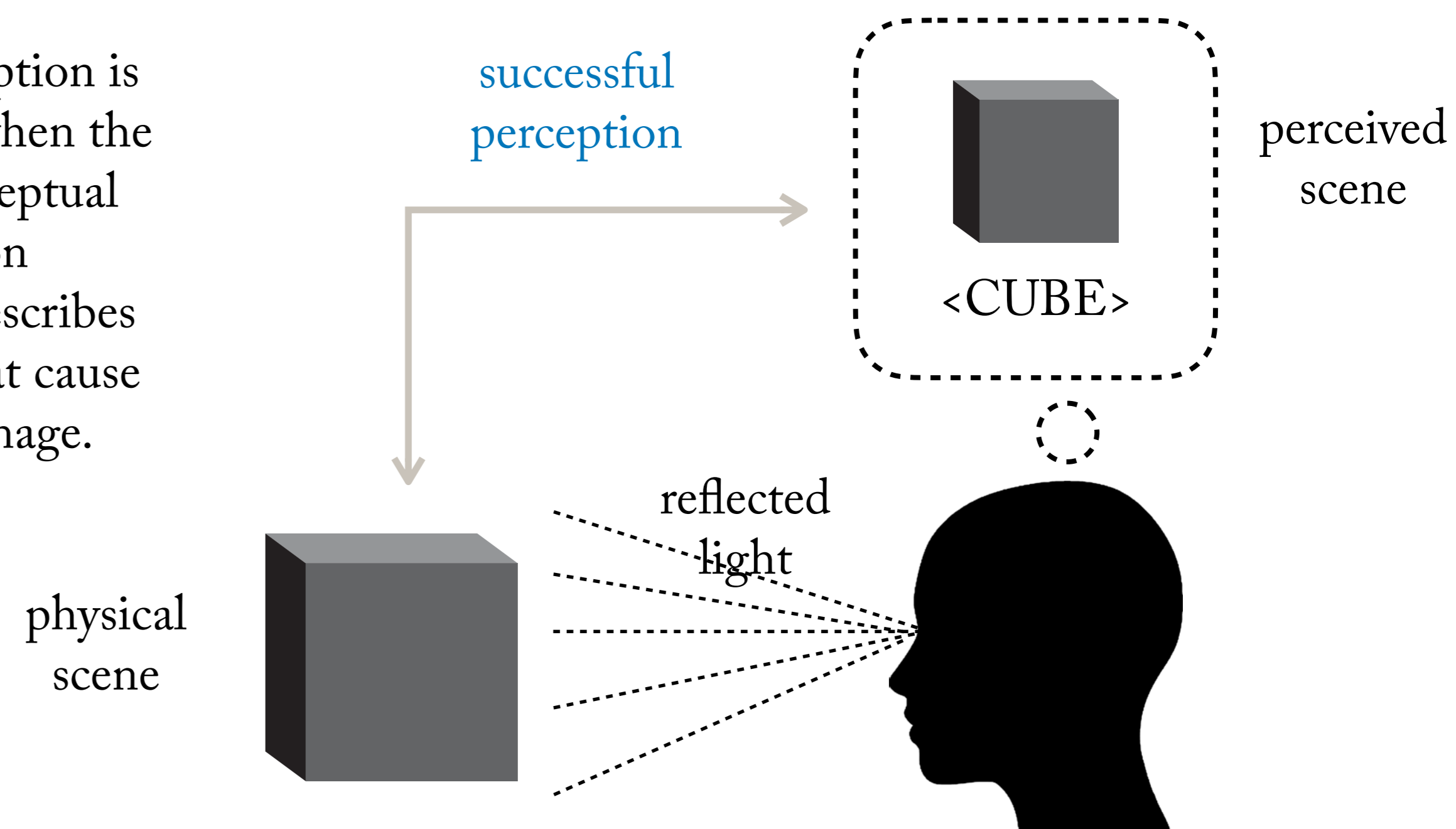
I.8.25 • Prof. G. Greenberg • Quotes from Gibson 1960

## Pictorial Communication

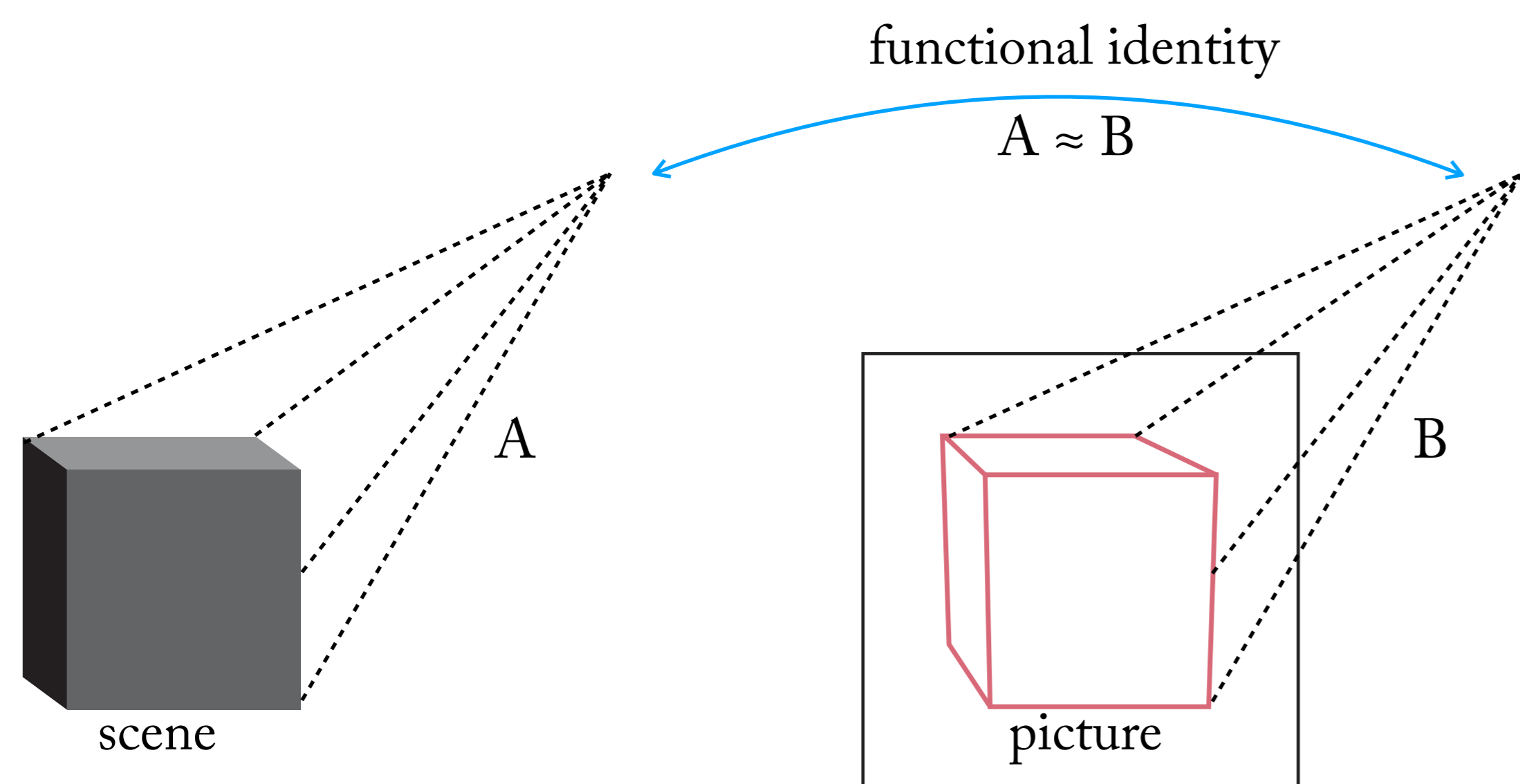
**From objects to light.** Vision begins with light reflected in straight lines from objects in the environment into the eye.



Visual perception is **successful** when the internal perceptual representation accurately describes the scene that cause the retinal image.



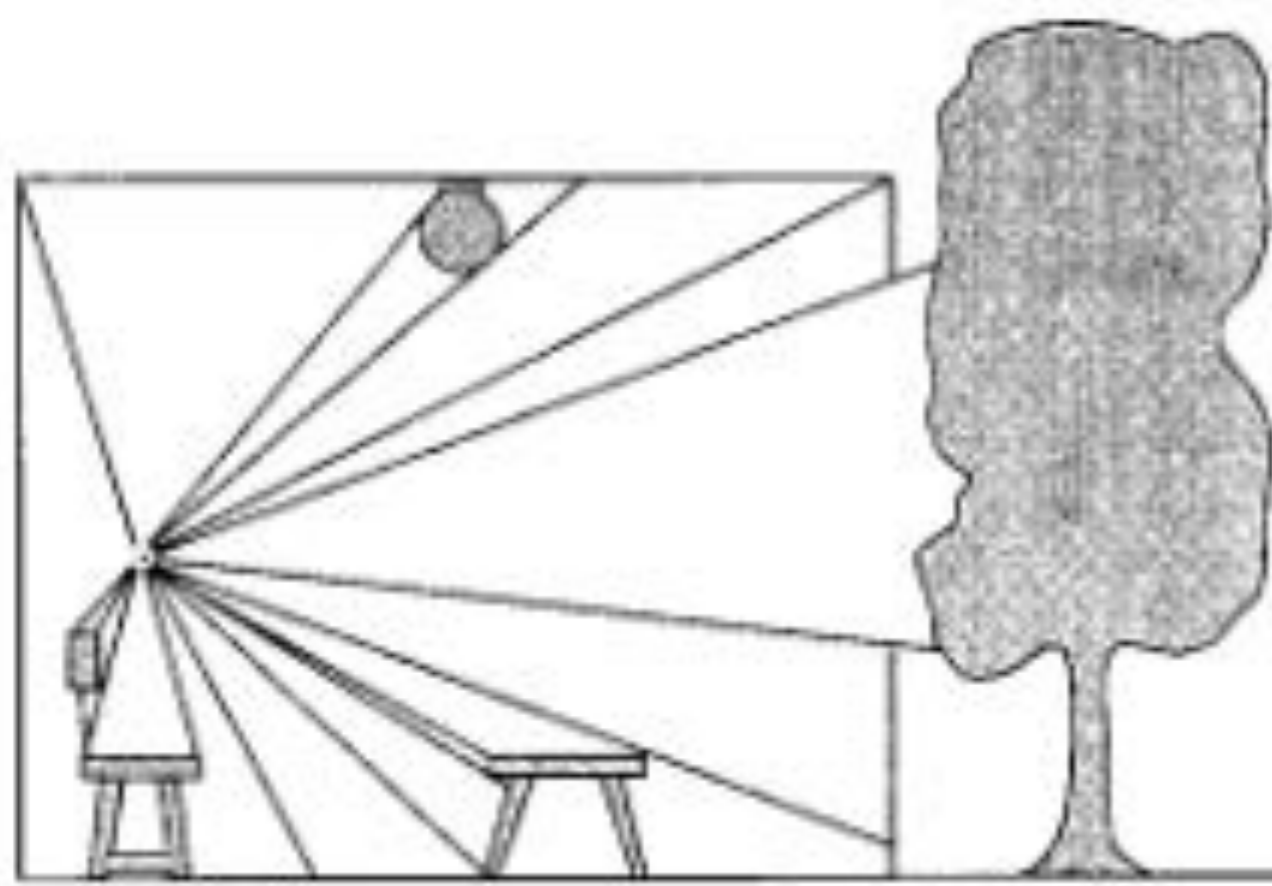
**Picture as re-perception.** "It permits the vicarious experiencing of an absent thing or the mediated perception of a distant place. It is perception at second hand, to be sure, but the greater the fidelity of the picture, the more it resembles perception at first hand. It may be only a fixed window on the part of the world in question, a mere peephole on reality, but with all its limitations it is a kind of visual education." (224)



**Strict fidelity.** "The complete identity of two ray sheaves, point for point, with respect to intensity and wave-length composition, is in practice impossible." (222)

**Functional fidelity.** "A picture's *functional* fidelity to the scene represented is simply the degree to which the variables to which the eye is sensitive are the same in one array as the other." (223)

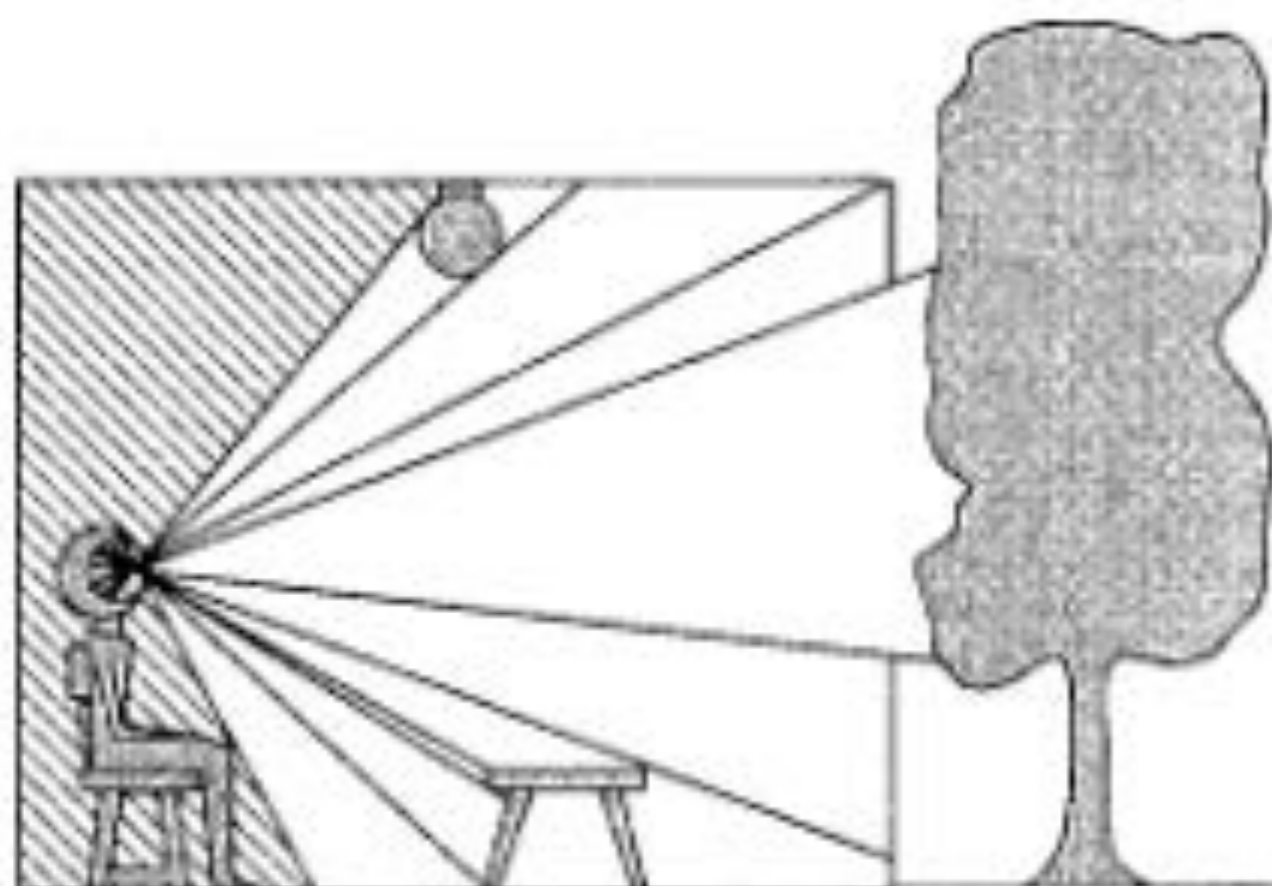
# Optics and View Point



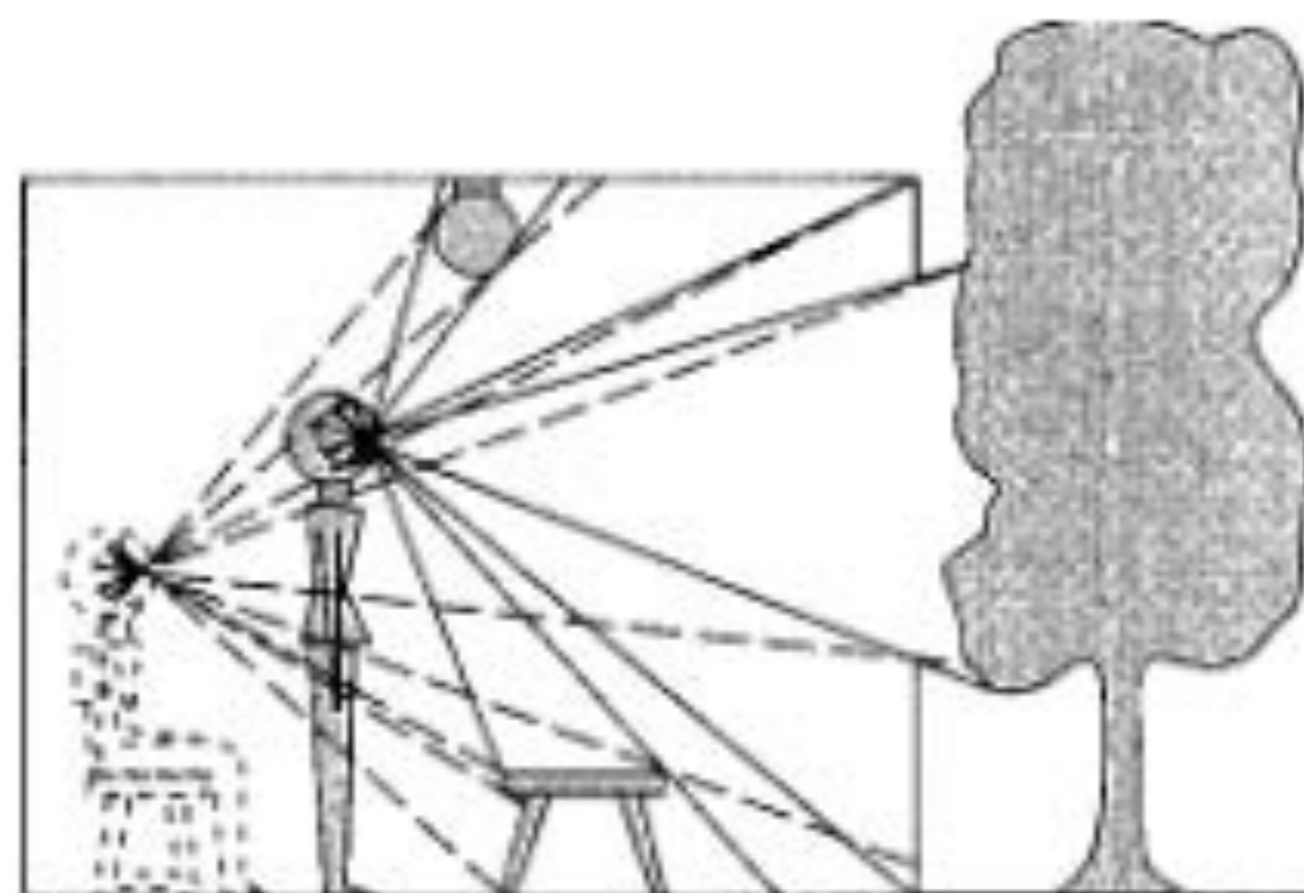
A

**Ambient light.** “Ambient light carries information, which can be observed simply by looking around.” (217)

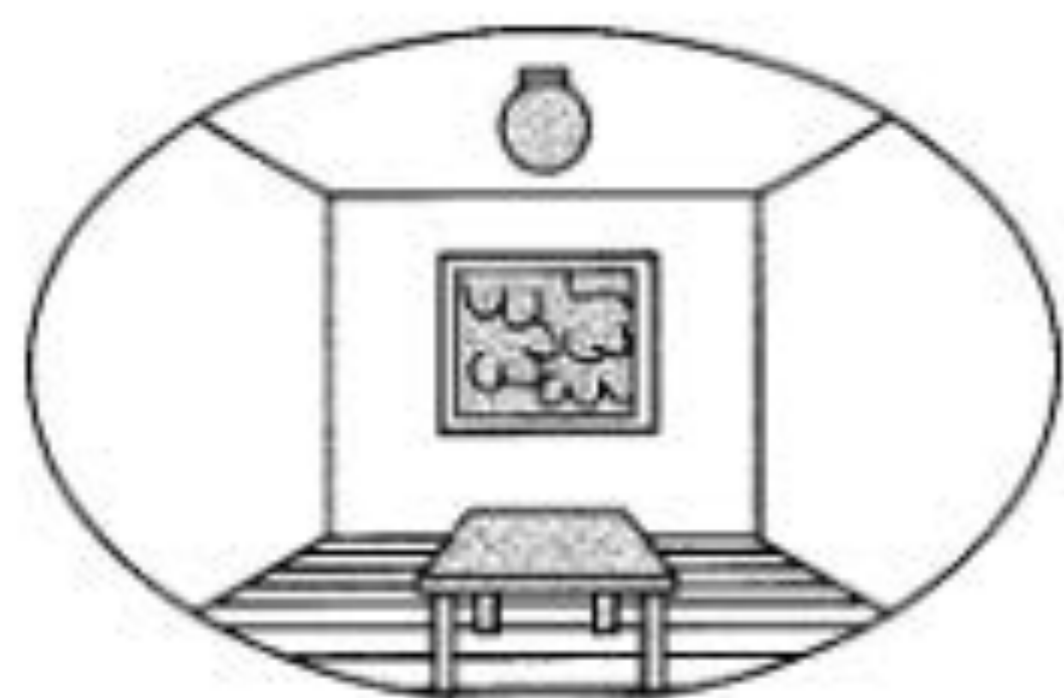
“We are concerned only with the converging bundles of rays. Each of these may be termed an optic array.” (217)



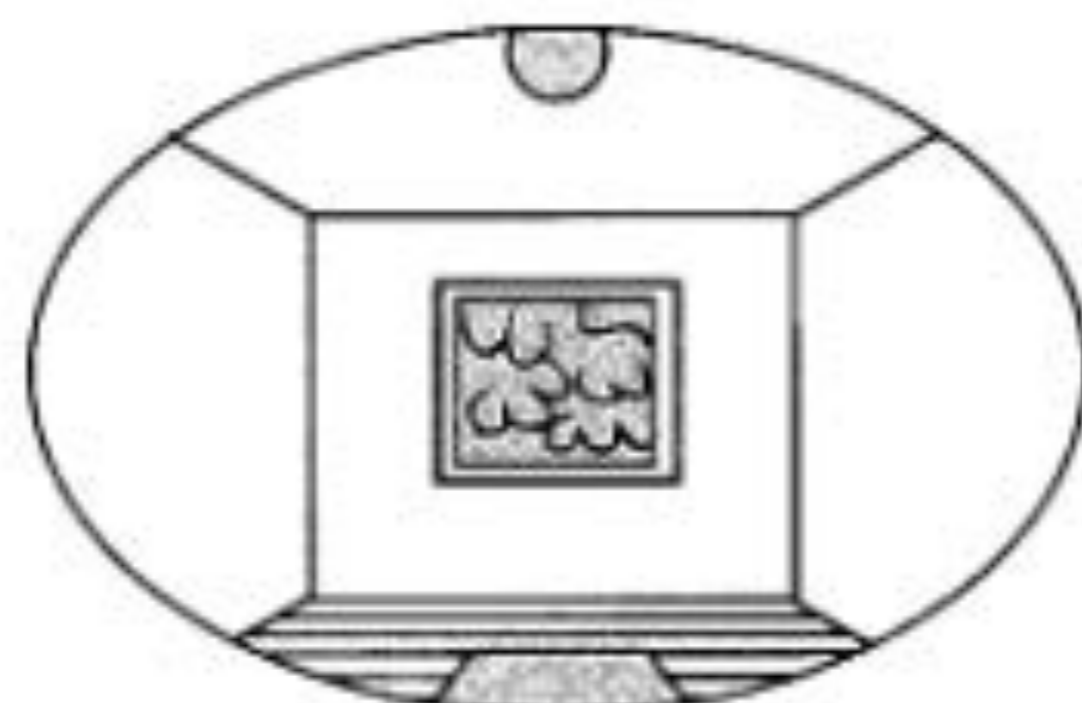
B



D



C



E

**Objectivity.** “The structure of an optic array may or may not be registered by an animal with eyes; it exists, whether or not an animal occupies the station point.” (219)

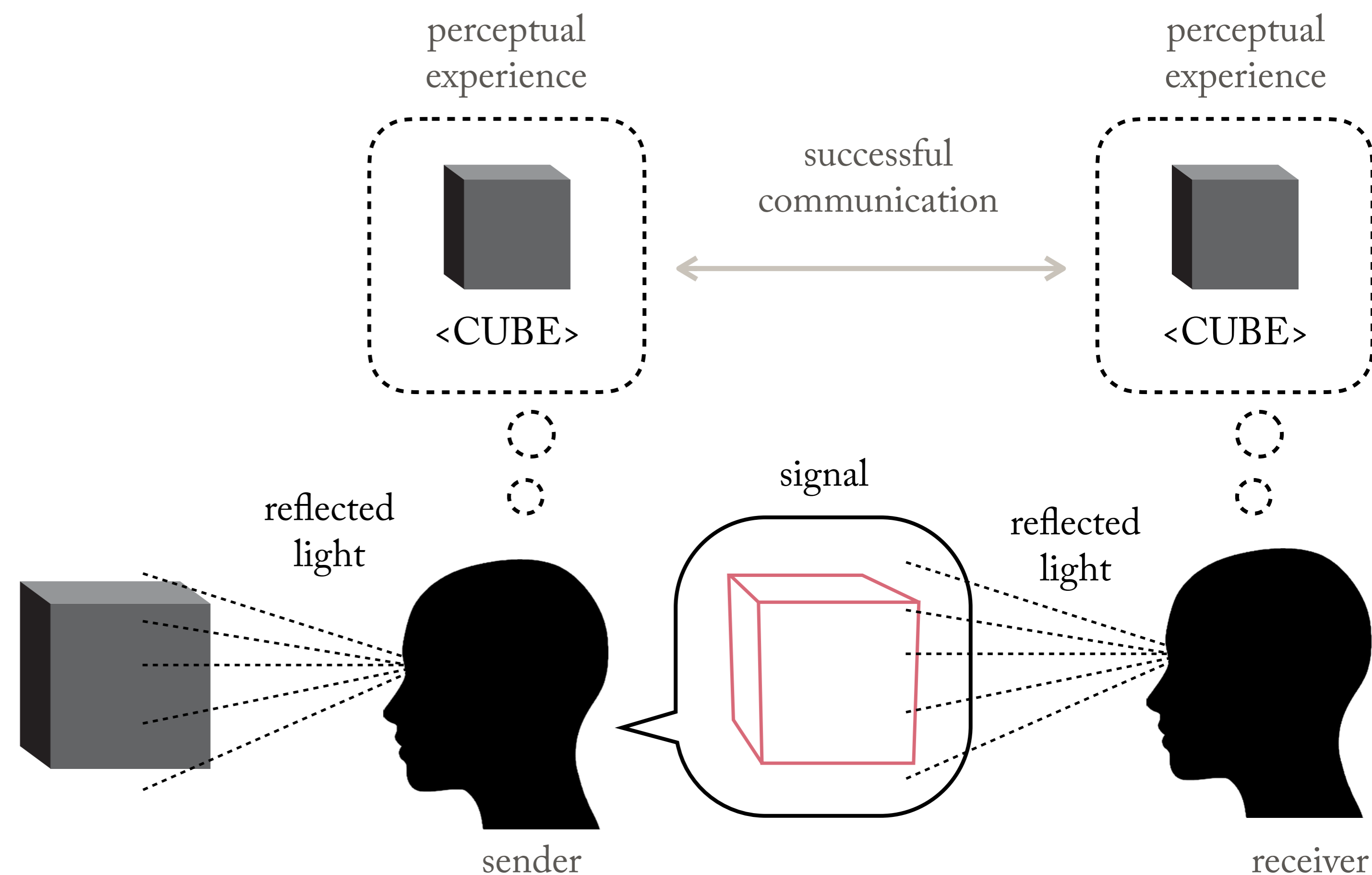
**Projection.** Part of an optic array -one sector of the total pie, as it were- can be projected on a plane. (218)

If the plane is small, with rectangular edges, the projection begins to resemble that of a window or an ordinary picture. (218)

**Motion.** When the station point moves, the whole structure of the optic array under- goes transformation. (218)

**Vision.** Vision depends on the structure of the optic array, however this may have been caused. (222)

# Gibson on the Function of Pictures



**Function.** “In general, a picture is a human artifact which enables another person to perceive some aspect of the visible world in the same way that the artist, the maker of the artifact, has perceived it.” (221)

**Pictures as second-hand perception.** “Concretely, a picture... delivers a sheaf of light rays to a station point in front of the surface, rays that contain information about... some part or aspect of a world which is not literally present at the station point. If an eye is actually stationed in front of the picture, and if its possessor can register the information contained in the sheaf of rays, then the picture has served its fundamental purpose. There has occurred a perception at second hand— a vicarious acquaintance with an absent scene.” (221)



**Line drawing.** A line specifies a contour to an eye without replicating the different brightness on either side of the contour. This is why a line drawing can have a considerable fidelity to an original scene without any matching of brightness or color. (223)