

Crown 85 Report

Acute Angle Dilation Illusions

Several classic examples of contour illusions are rationalized in terms of perceptually over **estimating** the angle of intersection of two lines when they form an acute angle (while accurately perceiving the angle of intersection for larger angles). Included among these are the Poggendorff Illusion, the Herring Illusion, and the Zollner Illusion. Although there are also alternative, more cognitive, explanations for each of these illusions, Blakemore and Carpenter provided a physiological rationale for neural processing that leads to the over estimation of acute angles. They propose that inhibitory interactions among orientationally tuned neurons that respond to bars of similar orientation would result in over estimation of acute angles.

This report should include:

- 1. Slides from Prof Switkes for you to integrate into your presentation which include--**
2. Examples of the [Poggedorff](#), [Herring](#), and [Zollner](#) Illusions
3. How over estimation of acute angles is consistent with the perception
4. (Briefly using slide from Prof.) That a proposed 'physiological' explanation involving inhibition among orientation feature detectors is consistent with the phenomenon

STUDENT SHOULD MAKE APPOINTMENT WITH PROF. SWITKES TO SEE APPARATUS AND DISCUSS REPORT; PROF. SWITKES WILL PROVIDE SOME SLIDES FOR YOU TO INTEGRATE WITH YOUR PRESENTATION