

Crown 85 Report

Class Demonstration of the Blakemore-Sutton Adaptation Phenomenon

Adaptation is often used to illustrate the feature specificity of processing mechanisms (neurons or networks of neurons) in the visual pathway. In an adaptation experiment one first looks at a “strong” version of one feature of the adapting and then observes how they distort subsequent perception, i.e. the ‘after-effect’. In Blakemore-Sutton effect the adapting targets are a pair of high contrast striped patterns or ‘gratings’, a ‘low spatial frequency grating’ with widely spaced stripes and the other ‘high spatial frequency grating’ with more closely spaced stripes. After adapting to these gratings for 3-4 minutes the observer looks at two patterns of identically spaced stripes of an intermediate spatial frequency and observes the perceptual ‘after-effect’

You will lead the class in a demonstration of the Blakemore-Sutton after-effect and describe to class what the perception means in terms of size specific (spatial frequency specific) neurons in visual cortex.

You will prepare to present an explanation of the effect to the class.

Some useful WWW sites:

- [Wandell, Foundations of Vision, Figure 7.11](#)
- [Joy of Vision](#)