We Create our Reality: A Brain-Based Guide for Success in Life

Introduction
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Course Overview

Perception Is an Active Process

How Heart and Mind Shape our Decisions

Our Choices Shape Brain Circuits

Drivers of Development of Consciousness
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Wholeness

Perception is an active process:

- encoding features of an object
- processing those features
- recombining them to create our reality

The whole of perception is more than the sum of the parts.
Perception Exercise
— pause the video —

Look at the black dot for five seconds

Keep your eyes still: focus on the dot

What happens?
Lateral Inhibition
Imagine these are rods and cones with the black dot.
Lateral Inhibition reduces the firing of all rods except those around the dot.
Mach bands: Edge enhancement
Perception Exercise
— pause the video —

Look at the black dot for five seconds

Then move your eyes to the right

What happens?
So if light falls on the cell again,
It does not respond as much.
Perception Exercise
— pause the video —

Make a yellow dot in the bottom part of your paper

Look at the yellow dot for five seconds

Keep your eyes still and focus on the dot

What happens?
A bipolar cell that is excited best by blue and inhibited best by yellow.

It is inhibited best by yellow light because when the medium and long wavelength cones are simultaneously stimulated by yellow light, their inhibitory effects summate.

A bipolar cell that is excited best by green and inhibited best by red.

It does not respond when the medium and long wavelength cones are simultaneously stimulated by yellow light because their excitatory and inhibitory effects cancel one another out.
Perception Exercise
— pause the video —

Hold the paper sideways, with the black dot to the right of the plus

With the plus in front of your right eye, close your left eye

Slowly bring the paper closer to your right eye while looking at the plus sign

What happens?
Filling in the Blind spot
Distribution of Cones in the Human Retina

Source: Adapted from Lidsay & Norman, 1977.