

How do we see the world?

Chapter 6- Sensation and Perception

CLASS OBJECTIVES

- What is sensation?
- Why do we each see things differently?
- Can my eyes really play tricks on me?

Sensation

■ Sensation is the process where our sensory organs relay information to our brain.

■ **What are our sense organs?**



■ This is how our brain receives sensory information

Why do we see things so differently?

- Two people witness the same event...
- *Perception* is a purely psychological process that reflects how we see the world.
- Perception is how an organism interprets the sensory information and gives it meaning.

Where's the science?

- *Psychophysics* focuses on the relationship between physical stimuli and a person's experience.
- Thresholds-
 - A dividing line where things become different
 - There are 2 important types of thresholds

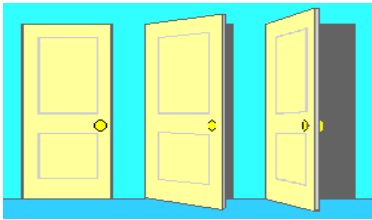
Psychophysics

1. *Absolute threshold* is the statistically determined minimum amount of stimuli necessary to excite a perceptual system.
 2. *Subliminal threshold* is the perception below the threshold of awareness.
- Does the word subliminal sound familiar?

Visual Constancy

- Our tendency to perceive objects as keeping their shape, size, and color.
- Shape Constancy is our ability to recognize a shape despite its orientation
- Size Constancy is our ability to recognize that an object remains constant in size regardless of its distance to the observer

Shape Constancy



We perceive all the doors as rectangles

Size Constancy



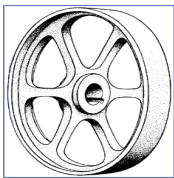
We perceive the woman on the left to be the same size as the woman on the right

Visual Perception

■ Gestalt psychology emphasizes that we perceive objects as well-organized patterns rather than separate component parts.

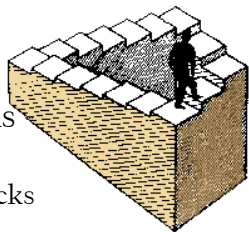
- “The whole is more than the sum of the parts”





Optical Illusions

Can my eyes play tricks on me?



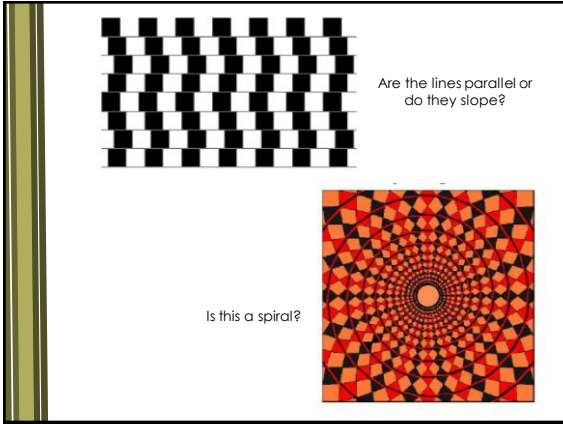
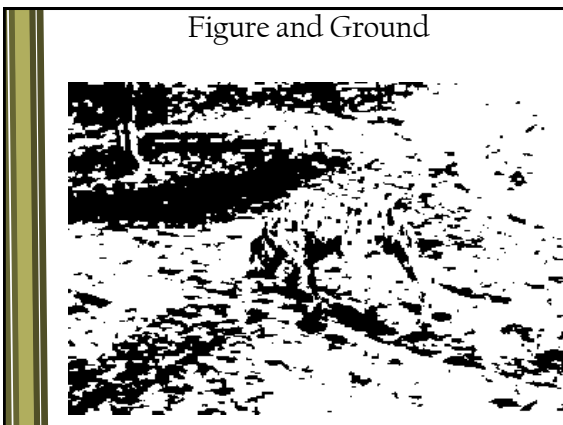


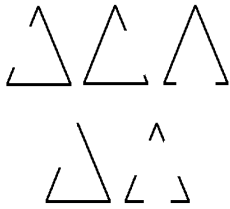
Figure-ground perception

- Our visual system simplifies the visual scene into a figure.
- And a ground which is everything else and forms the background.
- Look closely at the next picture for an example of this.





Closure

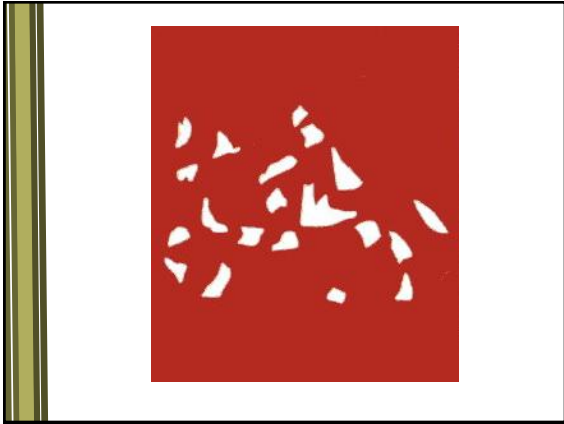


■ When a familiar figure is interrupted, we imagine the rest of the figure

Is what I see just all in my head?

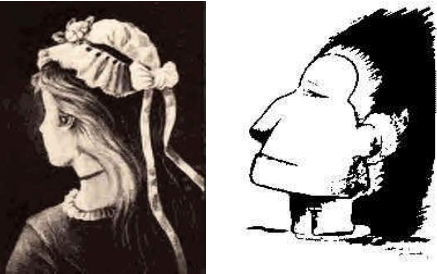
■ Read the following passage OUTLOUD:

■ According to a research at Cambridge University, it doesn't matter in what order the letters in a word are, the only important thing is that the first and last letter be at the right place. The rest can be a total mess and you can still read it without problem. This is because the human mind does not read every letter by itself, but the word as a whole

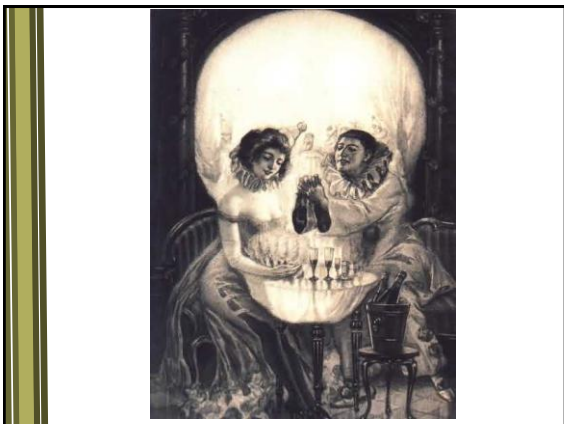


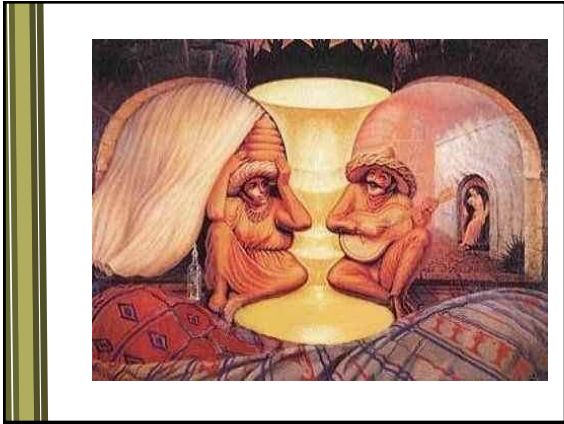
Reversible Figures

- Stimuli that can be perceived in more than one way
 - Is this the foreground or the background?



The image shows two reversible figures side-by-side. The left figure is a black and white illustration of a woman's profile, facing left, wearing a bonnet and a dark dress. The right figure is a black and white illustration of a man's profile, facing left, with a large nose and a dark, textured background behind him.





Similarity

- The tendency to perceive objects that resemble each other as forming a group

