Perception – definition revisited

- PERCEPTION IS THE PROCESS OF ORGANIZING AND INTERPRETING SENSORY INFORMATION

Basic Principles

- Gestalt = “the whole”

- It is an emphasis that the whole is greater than the sum of its parts

- It’s a belief that we do not focus on discrete, individual stimuli in the environment – we group them into more meaningful units.

A Gestalt

Figure-Ground Relationships

- Organization of the visual field into objects (figures) that stand out from their surroundings (ground).

- The figure is that object that draws one’s attention

- The ground is the background
Grouping Principles

- The perceptual tendency to organize stimuli into understandable group
  
  - SIMILARITY = We place items that look alike in the same group
  
  - PROXIMITY = We places items that are near each other in the same group
  
  - CLOSURE = Fill any gaps in the perceptual field
  
  - CONTINUITY = An object that appears to move in a particular direction is assumed to continue that movement unchanged

- We place items that look alike in the same group

- We places items that are near each other in the same group

- Fill any gaps in the perceptual field

- An object that appears to move in a particular direction is assumed to continue that movement unchanged

- Connectedness
Basic Principles

- Depth perception is the ability to see in three dimensions and to judge distances.
  - VISUAL CLIFF = laboratory device for testing depth perception in infants

- The retina is a two-dimensional surface but we can use it to determine height, width and depth
  - BINOCULAR CUES = depth cues that use both eyes
  - MONOCULAR CUES = depth cues that use only one eye

Binocular Depth Cues

- Retinal disparity is a depth cue resulting from slightly different images produced by the retina of each eye.
  - Most effective for objects that are near

- Convergence is a depth cue related to the tension in the eye muscles when the eyes track inward to focus on objects close to the viewer
  - Again most effective for near objects

Monocular Depth Cues

- Used in art to create 3-D images on a 2-D surface

  - Relative Size = objects near appear large

  - Relative Motion = perceived slowness of object indicates it is distant

  - Interposition = closer objects disrupt view of distant objects
Monocular Depth Cues (2)

- **Relative height** = distant objects appear higher
- **Texture gradient** = distant objects have a smoother texture
- **Relative clarity** = distant objects are less clear
- **Linear perspective** = parallel lines seem to draw together in the distance

Perceptual Constancy

Perceiving the size, shape, and lightness of an object as unchanging even as the image of the object on the retina of the eye changes

Size Constancy

- We expect size to remain constant – so if the relative size of an object changing we realize it is the distance that is changing not the actual size of the object

Shape Constancy

- An object's shape has not changed even though our angle of view may have done so.
**Shape Constancy**

The ability to see an object as having the same constant level of lightness no matter how the lighting conditions change.

**Lightness Constancy**

- A mental predisposition to perceive something one way and not another
- Expectations influence what we “perceive”
- Often these perceptual sets are shaped by our schemas, or mental frameworks we have about the world

**Perceptual Set**

**Color Constancy**

**Perception is a Biopsychosocial Phenomenon**

- Biological influences: sensory analysis, unlearned visual phenomena, critical period for sensory development
- Psychological influences: selective attention, learned schemas, Gestalt principles, context effects, perceptual set
- Social-cultural influences: cultural assumptions and expectations
Is There Extrasensory Perception?

Parapsychology

- PARAPSYCHOLOGY = study of mental phenomena that are beyond the scope of normal physical explanation

- ESP = extrasensory perception
  - TELEPATHY = able to read other’s minds
  - CLAIRVOYANCE = perceive objects or events not accessible to normal senses
  - PRECOGNITION = predict the future

- PK = psychokinesis = move objects without touching them