SENSATION & PERCEPTION

Module 16: Basic Principles
Module 17: Influences on Perception
Module 18: Vision
Module 19: Visual Organization and Interpretation
Module 20: Hearing
Module 21: The Other Senses
Perceptual Inclusions
Basic Concepts

- Sensation vs Perception
- Bottom-up vs Top-Down Processing
- Selective Attention
  - Stroop Effect
    - Interactive Stroop Effect Online (play & reflect)
- Selective Inattention
  - Inattentional blindness
  - Change blindness
  - Choice blindness
    - Implicit association test (implicit.Harvard.edu/implicit)-play and reflect
    - Problems? (flaws of implicit association test)
Transduction

- Conversion of energy into neural impulses that our brain can interpret.
  - Receive sensory information using specialized receptor cells
  - Transform the stimulation into neural impulses
  - Deliver the neural impulses to the brain
- Ties into the concept of psychophysics
  - Physical characteristics of stimuli
  - Our psychological experience of them
Thresholds

- **Absolute threshold**
  - Minimum stimulation needed to detect a particular stimulus 50% of the time (Fechner)

- **Signal detection theory**
  - How and when we detect the presence of a faint stimulus (signal) amid background stimulation (noise)
  - Depends on a person’s experience, expectations, motivation, alertness
Thresholds

- **Subliminal**
  - Below one’s absolute threshold for conscious awareness

- **Priming**
  - Activation (often unconscious) of certain association, predisposing one’s perception, memory or response

- **Difference threshold**
  - Just noticeable difference
  - Difference threshold increases with the size of the stimulus

- **Weber’s Law**
  - To be perceived as different, two stimuli must differ by a constant minimum % (rather than a constant amount)

- **Sensory adaptation**
  - Diminished sensitivity as a consequence of constant stimulation
Sensory Adaptation
TOP DOWN PROCESSING INFLUENCES
Perceptual Set/Schemas
Context Effects
Emotions/Motivations
Context Effects (Visual)
Context Effects (Culture)
ESP
(Mental Telepathy)
PERCEPTION GOGGLES

SAFETY FIRST
FOLLOW HANDOUT
MAKE OBSERVATIONS
- Review Structures of eye with partner & discuss what is most fascinating part
- Hubel & Wiesel’s research
- Parallel Processing
- Color Vision?
- Review Structures of ear with partner & discuss what is most fascinating part
- Discuss characteristics of other senses