***Chapter 6 LECTURE NOTES: Perception***

## *Selective Attention*

* **Selective attention:** focusing only on one thing at a time; focused awareness only on limited aspect of all that is capable of experiencing; *you aren't aware of your nose in line of vision*
  + ***Cocktail Party Effect:***(example of selective attention) ability to focus only one voice in a crowd.

### Perceptual Illusions

* + - **Visual capture:** phenomenon when a conflict occurs between vision and another sense … vision dominates; *vision captures other senses (overrides)*
  + in theaters, sound comes from behind (projector), yet perceived as from screen
  + perceiving voice coming from ventriloquist’s dummy

#### ***Perceptual Organization***

* + - Humans organize clusters of sensation into **gestalt**: organized "whole"; human tendency to order pieces of info into a meaningful picture
    - First perceptual task: to perceive ***figure***(object) as distinct from ***ground***(background)
    - **Figure-ground**: organization of visual field into the figure(s) that stand out from the ground
      * Next, organize figure into meaningful form (color, movement, light-dark contrast)
      * To process forms, use **grouping**: rules the mind follows to organize stimuli into logical groups
      * Grouped into ***Proximity, Similarity, Continuity, Closure, Connectedness***
    - **Depth perception:** ability to see objects in 3D even though image sensed by retina are 2 dimensional; allows distance judgment; partly innate
* **Visual cliff:** laboratory device for testing depth perception in infants/animals
  + Gibson and Walker placed 6-14 month old infants on edge of a visual cliff (table half glass, half wood), making the appearance of a drop-off; mothers then tried to convince infant to crawl past the normal part of the table onto glass; most refused, indicating perception of depth
* **Binocular cues:** depth cues that depend on both eyes
  + Eyes apart, slightly different images, brain sees difference
* **Retinal disparity:** binocular cue in which the greater the difference between images, the closer the object
  + **Convergence:** binocular cue in which the more the eyes turns inward, the closer the object appears
  + **Monocular cues:** distance cues that are available to either eye, (*relative size, interposition, relative clarity, texture gradient, relative height, relative motion, linear perspective, relative brightness)*
  + Brain computes motion based partly on assumption that objects moving away are shrinking & vise versa
  + Brain reads rapid series of slightly different images as movement; phenomenon called ***stroboscopic movement*** .
* Another illusion of movement is **phi phenomenon:** perception of movement when lights blink one after the other; (*the lighted arrow signs on the back of parked construction trucks)*
* **Perceptual constancy:** perception that objects are not changing even under different lighting; *allowing identification regardless of angle of view; (a door is a door even at 45 degree (shape constancy) angle or 20 feet away (size constancy))*

### Interpretation

* Previously blind patients often can't recognize objects familiar by touch only
* Sensory restriction like allowing only diffuse, unpatterned light through; affects only at infancy, suggesting *critical period* for development
* **Perceptual adaptation:** ability for our vision to adjust to artificial displacement; *given goggles that shift vision* 30 *degrees to left, humans learn to adjust actions* 30 *degrees to left (remember the quarterback)*
* Roger Sperry surgically turned eyes of animals; found out fish, frogs, salamanders (Note: reptiles) CAN'T ADJUST while kittens, monkeys, and humans (Note: mammals) did ADAPT
* Experiences, assumptions, and expectations give us a **Perceptual set:** mental set-up to perceive one thing and not another; *ufo-looking objects that are really clouds;* because we can't resist finding a pattern on unpatterned stimuli
* Much of our perception comes not just from world "out there", but also from behind the eyes and between the ears.

### ESP

* 50% of Americans believe in **extrasensory perception (ESP):** claim perception occurring without sensory input
  + Three varieties of ESP: *Telepathy (sensing or reading thoughts),*
  + *Clairvoyance (perceiving an event unfolding),*
  + *Precognition (seeing future)*
* **Parapsychology:** study of paranormal phenomena (profession called Parapsychologists)
* Vague predictions can later be interpreted to match events; *Nostradamus claimed his prophecies could not be interpreted till after the event*
* After many experiments, there has never been a reproducible ESP phenomenon or individual who can convincingly demonstrate psychic ability