Sensory Capabilities: Experiencing the World

Seeing
- Visual acuity not fully developed but can see to some extent
- Attend to visual field highest in information and brightness
- Possess some sense of size constancy
- Distinguish and show preference for different colors

Infant Visual Preference
- Preferences that are present from birth
  - Automatically prefer particular kinds of stimuli
  - Prefer to look at patterned over simpler stimuli

Hearing
- Clearly capable of hearing, but auditory acuity is not completely mature
- React to and show familiarity with certain kinds of sounds
Auditory Perception: The World of Sound

- Infants
  - Are more sensitive to certain frequencies
  - Reach adult accuracy in sound localization by age 1
  - Can discriminate groups of different sounds
  - React to changes in musical key and rhythm
  - Can discriminate many language related sounds

How do researchers test these things?!

- Principles used?
  - Discrimination
  - Gaze duration
  - Habituation
  - Useful with babies days old

Visual Preference

High Amplitude Sucking

- Infant sucking brings about sound stimuli
- When bored (habituated), they slow sucking
- Experimenter changes sound, baby becomes interested again (dishabituates) and increases sucking speed

Is speech special?

- The most important single phenomenon with respect to this question has been: **Categorical perception**
  (Perceiving speech sounds as being in a limited number of categories)
Why are categories special?

- Different languages have different categories
- So... in one language a difference in sound may make a difference between words; in another, it might not

High Amplitude Sucking Procedure

- Initially sucking rate increases (novelty)
- Then it decreases
- This decline in response is habituation

Infant Categorical Perception?

Infants show categorical perception for basic units. (Eimas, Siqueland, Jusczyk & Vigorito, 1971)

Habituate: 20 ms VOT (b)
Test: 0 ms VOT (b)
40 ms VOT (p)

1 & 4 month olds