

Speech Perception

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Speech Perception

- Speech perception requires the auditory system to:
 - record sound vibrations of someone talking
 - translate vibrations into a sequence of sounds that you perceive to be speech
 - distinguish the sound pattern of one word from all other irrelevant words
 - separate voice of speaker from background noise, including other conversations

<https://www.youtube.com/watch?v=QNKn5ykP9PU>

Speech Perception

- **Characteristics of Speech Perception**
 - phoneme
 - Four Characteristics of Speech Perception
 1. Listeners can impose boundaries between words, even when these words are not separated by silence.
 2. Phoneme pronunciation varies tremendously.

Speech Perception

- **Characteristics of Speech Perception**
 - Four Characteristics of Speech Perception
 3. Context allows listeners to fill in some missing sounds.
 4. Visual cues from the speaker's mouth help us interpret ambiguous sounds.

Speech Perception

- **Characteristics of Speech Perception**
 - ***Word Boundaries***
 - The actual acoustical stimulus of spoken language rarely shows clear-cut pauses to mark the boundaries between words.
 - Listeners use knowledge about language in order to determine the boundaries between words.

Speech Perception

- **Characteristics of Speech Perception**
 - ***Variability in Phoneme Pronunciation***
 - Phoneme pronunciation varies tremendously.
 - pitch, tone, and rate
 - lack of precision, sloppy pronunciation
 - coarticulation

Speech Perception

- **Characteristics of Speech Perception**
 - ***Context and Speech Perception***
 - Top-down factors influence speech perception.
 - We use our knowledge of language to help us perceive ambiguous words.
 - Phonemic restoration
 - Warren & Warren's wheel/heel/peel study
 - Role of top-down processing

Speech Perception

- **Characteristics of Speech Perception**
 - ***Visual Cues as an Aid to Speech Perception***
 - Visual cues from the speaker's mouth help us interpret ambiguous sounds.
 - McGurk effect
 - compromise between discrepant sources of information
 - superior temporal sulcus
 - <https://www.youtube.com/watch?v=G-IN8vWm3m0>