Perceptual Coherence in Adults with Congenital and Acquired Hearing Losses

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Introduction

Children with hearing loss eventually become adults with hearing loss.

Does impaired auditory processing in childhood extend into adulthood?
Perceptual Coherence
Purpose

- To examine perceptual coherence in adults with congenital hearing losses relative to adults with normal hearing and adults with acquired hearing losses.
Subjects

- 10 Normal hearing (mean age 25 years)
- 10 Acquired hearing losses (mean age 64 years)
- 10 Congenital hearing losses (mean age 34 years)
**Stimuli**

- **Speech**
  - 9 naturally produced words (sonorants)
  - Produced by a male, female and child.
Paradigm

- **Yes/No**
  - Yes trial
    - F2 in the word
  - No trial
    - F2 not in the word
Results
Subjects

- Adults
  - Normal
  - Acquired
  - Congenital
**Paradigm**

- **5 3-tone Complexes**
  - Amp. modulated (100Hz)
  - 50% duty cycle

- **Yes/No**
  - Yes trial
    - F2 in complex
  - No trial
    - F2 not in complex
Results

- three-tone complex
Conclusion

- Perceptual coherence was not affected by acquired hearing loss.
- Adults with congenital hearing losses demonstrated atypical perceptual coherence for speech.
- Practical consequences of poor perceptual coherence are largely unknown.
- Implications for research.