Audiovisual Nature of Language: Do Children Process Audiovisual Information Differently?
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ABSTRACT
Audiovisual processing during speech perception is often studied using a McGurk task, which elicits a perceptual illusion form the interaction of mismatched auditory and visual speech. The available research on the McGurk task shows evidence for perception of the McGurk illusion in adults and infants but does not in school-aged children with typical development. The absence of a McGurk effect in school-aged children has been interpreted as a reduction in the use of visual information during speech perception at this age. However, the failure to McGurk in school-aged children may be due to task demands. Results from adult subjects demonstrate that our task reflects audiovisual processing. Further, results from children 7 to 11 years old demonstrate that our task reflects audiovisual processing in this age group.

BACKGROUND
- Using verbal report, 98% of adult responses to McGurk task indicate an illusory percept (McGurk & MacDonald, 1976).
- Using preferential looking, infant performance on a McGurk task suggests an ability to perceive the McGurk effect (Rosenblum, Schmacker, & Johnson, 1997).

PROCEDURE
- Participants were instructed to “Touch the picture that matches the word the woman said”.
- Using verbal report, school-aged children show a significantly weaker McGurk effect compared to adults (McGurk & MacDonald, 1976; Dupont et al., 2005).
- Infants’ performance on McGurk-like tasks is assessed by looking time measures. Children prefer the same McGurk task as adults and performance is assessed in the same way for both adults and children.
- Children’s performance has been attributed to poor lip-reading skills, less experience correctly producing phonemes, learning to read around this age causes reorganization of phonological representational knowledge (Massaro et al., 1986; Dupont et al., 2005; Jerger et al., 2009).

RESULTS
- 5 Females, 5 Males
- Monolinguistically developing children with no prior history of perceptual or neurological disorders

RESULTS - Adults
- Match: 98% of the responses are McGurk-like.
- Mismatch: 98% of the responses are McGurk-like.

RESULTS - Children
- Match: 98% of the responses are McGurk-like.
- Mismatch: 98% of the responses are McGurk-like.

PREVIOUS WORK
- Programmed on PsyScope X

REFERENCES

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