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Effects of familiarity and presentation mode on auditory-visual speech recognition in adults with aphasia

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Effects of familiarity and presentation mode on auditory-visual speech recognition in adults with aphasia

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Introduction
• Research demonstrates that adults with aphasia can continue improving their speech and language for years after their stroke with therapy.
• People with aphasia and their loved ones are searching for ways to continue speech and language improvements even after insurance runs out, and many are turning to technological therapy programs.
• There is little research on the skills people with aphasia need to benefit from these technological therapy programs. The current study reports on one of these skills, auditory visual speech perception.

Technological Therapy
Interest since 1992

Therapy programs focused on naming, sentences, conversational scripts. Lack of studies on the fundamental skills needed for these programs.

Auditory Visual Speech Perception
• Familiarity: Hude, Ellis, and Kay (1989), Stinkey and Noll (1994), and Dressler, Butler, and Carneiro (2009)
• Presentation Mode (live v. recorded speech): Hiday et al. (2011)

Participants
Recruitment: Aphasia support groups in Indianapolis
Number: 6 adults with aphasia
Gender: 4 male, 2 female
Age: 44-70 years old
Cause: 5 from a stroke, 1 from infection
Chronic Phase: 6 months to 6 years

First Visit
Caregivers introduced to the study (informed consent) and videotaped speaking sentences.

Screening Tests
History, vision, hearing, reaction time, short-term memory test, Western Aphasia Battery

Method

Second Visit
Informed consent, Screening Tests Speech Recognition Tests

Results

Significance:
p < 0.026 *p < 0.003 *

Conclusions
• There is a statistically significant difference between the four conditions, and the live familiar condition appears to be the most favorable.
• These differences were not explained by memory or repetition.
• Clinical Application: Incorporate a live, familiar person into technological therapy.
• Note: The live condition may be even more important than familiarity, so avenues could be explored for volunteers to work with people with aphasia on technological therapy.

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