Apraxia of Speech in Conduction Aphasia: A Clinical Reality

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AOS and CA

Apraxia of speech (AOS) is a motor speech disorder that can occur in isolation, but usually co-occurs with aphasia of varied language fluency. Speech production difficulties are evident in self-initiated speech as well as in repetition. Sound segments appear distorted to listeners and prosody is impaired, with slow speaking rate, syllable segregation, and elevated stress.

Conduction aphasia (CA) is a language disorder distinguished by word-finding difficulties, largely preserved language comprehension, and relatively high fluency in spontaneous speech. Speech production difficulties are most evident during repetition and confrontation naming tasks, and performance on these tasks can differ markedly from running speech. Although the speech output may include multiple sound errors, these errors are thought to be relatively unaffected.

Can AOS and CA be diagnosed in the same person?

Method

Participants (N=41)
- 23 male, 18 female
- All CA on the WAB
- From AphasiaBank database
- (http://talkbank.org/AphasiaBank/)
- All had a WAB-R diagnosis of conduction aphasia after stroke and one had a clinical diagnosis of dysarthria.

Speech Sample
- Video recordings
- 15-item Boston Naming Test, BNT-15
- Story telling narrative (Cinderella).

Narrow Phonetic Transcription
- From video
- Klattese and 12 numerical codes for diacritic marks.
- Phonemic errors, distortion errors, distorted substitution errors

Acoustic Analysis
- Extracted audio files, Manual segmentation of the naming and story-telling speech samples, Praat
- Word syllable duration (WSD), Narrative syllable duration (NSD)

Discourse Analysis
- From available AphasiaBank transcriptions and codes for the Cinderella task through Clans' EVAL, global coherence, and main concepts analyses

Discussion

Question 1: Do some people with a CA diagnosis (per the WAB-R) show quantitative evidence of AOS?

Question 2: Do speakers with probable AOS also have low language fluency or limited syntactic?

Question 3: What is the relationship between distortion error and phonemic error frequency?

References


