Introduction

• Life-altering changes in communication abilities can occur in adulthood following brain injury. Communication difficulties experienced by persons with aphasia (PWAs) can reduce or prevent participation in a variety of life roles that require communication.1
• As therapy and assessment approaches evolve to emphasize more functional discourse and conversational tasks, measures to adequately and efficiently chart response to treatment must be developed. Traditional language impairment measures may not predict improvement that is personally significant or socially relevant.5,6
• Discourse measures (e.g., WPM, CIU, etc.), rather than traditionally administered assessment measures of limitations of body structure/function or activity, correlate significantly with listener ratings.8,6
• Since participation in life activities is at least partially determined by the willingness of non-impaired individuals (e.g., caregivers, friends, family members, etc.) to communicate with persons with aphasia and their comfort in doing so,9 we believe we can gain some insight into the usefulness of discourse measures for predicting life participation by exploring which measure(s) correspond(s) to observer perceptions of typicality and comfort.10

Question 1: Are there differences in observer responses to different perceptual questions?
• Specifically, are ratings of typicality (Typ), comfort while observing (C-o), prediction of comfort while conversing (C-c), and prediction of comfort while socializing/workin (C-s), or the same or different?
• Question 2: Do observers change their responses in a way that corresponds to speaker characteristics (e.g., severity,7?)
• Question 3: Are there differences between responses of experienced and naive observers?
• Question 4: What is the relationship between speech-language measures and observer ratings?
• Specifically, are discourse measures strong predictors of observer perceptions?

Methods

Observers

• See Table 1. All observers reported English as their native language and adequate vision and hearing (corrected/uncorrected) necessary to view videos.
• Experienced: 69 observers (66 females, 3 males) who were acquainted with speech, language, or hearing disorders through academic coursework, work experience, personal, or family history.
• Naive: 51 naive observers (27 females, 24 males) with no personal or academic experience with persons with communication disorders.

Speakers and Video Clips

• See Table 2. Nine adults (8 PWAs and 1 control) were selected from the AphasiaBank database.
• The speakers were chosen to represent a basic continuum of severity (from most impaired language to normal language), with both fluent and non-fluent subtypes included.
• Video clips (ranging from 45s to 3min) displayed speakers describing a picture sequence (Breaking Window) and describing a procedure (Peanut Butter and Jelly Sandwich) during a standardized assessment (AphasiaBank protocol).

Procedure

• Observers watched and rated 9 video clips in groups or individually within a quiet environment.
• Prior to rating, observers were given scoring sheets (4 questions per video), verbal instructions (Box 1), and a rating demonstration.
• Observers completed a magnitude estimation task (no modulus) during which they rated 4 questions following each speaker video clip. A left-to-right visual analog scale (VAS) was used.
• Observers were instructed to make subsequent ratings relative to the first rating.
• Video clips were presented in the same order to each listener.

• Video clip 1 was replayed after video clip 5 for calibration.

Data Analysis

• Observer ratings were measured (distance from left hash on VAS).
• Raw measurements were used in a 2 (Group) x 4 (Question) x 9 (Speaker) mixed-design ANOVA to address Questions 1 and 2.
• Speaker speech-language measures and scaled observer measurements6,8,9 were used in Pearson correlation to address Question 3.

Reference

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