Inter- and Intra-Individual Variability in Non-Linguistic Attention in Aphasia

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INTER-INDIVIDUAL VARIABILITY IN NON-LINGUISTIC ATTENTION IN APHASIA

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INTRODUCTION

Attention

Language Processing

Learning

Memory

Treatment Gains

Attention is a prerequisite to other cognitive skills and processes.

A number of studies have identified impairment in one or more types of attention processing in persons with aphasia (PWA) relative to healthy controls; variability among PWA has also been noted (e.g. Tseng, McNeil, & Milenkovic, 1993; Hunting-Pompon, Randall, & Moore, 2011; Murray, 2012).

Many studies on attention in aphasia have used linguistic tasks and have found PWA as a group to have poorer attention than controls on these tasks (e.g. Murray, 2000; Hula, McNeil, & Sung, 2007).

Several studies have used purely non-linguistic tasks and have also found PWA as a group to have poorer attention and/or attention allocation than controls (Robin & Rizzo, 1989; Erickson, Goldinger, & Laphonte, 1996).

It has also been suggested that an impairment in attention allocation may underlie or influence language impairment in aphasia (McNeil, Odell, & Teng, 1991; Hula & McNeil, 2008).

The present study looks systematically at five types of non-linguistic attention in aphasia.

Between-Session Intra-Individual Variability (BS-IV) in task performance: High BS-IV has been noted in linguistically impaired populations (e.g. Stuss et al., 1994); however, this has not been examined in aphasia. We suggest that BS-IV could impact treatment outcomes:

METHODS

Participants

- 18 individuals with chronic aphasia from a unilateral stroke (66, mean age = 63.4, sd = 7.5)
- 5 age-matched controls (36, mean age = 65.3, sd = 5.9)

**EXPERIMENTAL TASK**

- Five conditions, each assessing a different type of non-linguistic attention.
  - Participant was instructed to press a key to indicate whether the target was on the left, on the right, or absent. For Condition 5, the target was L/R congruency between the two stimuli.

RESULTS

**DATA ANALYSIS**

Participants

- Analyze the data for each session individually.

**NON-LINGUISTIC ATTENTION IN APHASIA**

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<thead>
<tr>
<th>Session</th>
<th>Condition</th>
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<td>Condition 2</td>
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<td>Condition 2</td>
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</table>

**DATA ANALYSIS**

Session 1

- Condition 1: Sensory visual attention
- Condition 2: Selective auditory attention
- Condition 3: Auditory-visual integrational attention
- Condition 4: Auditory-visual integration attention
- Condition 5: Auditory-visual integrational attention

**PHOTOS:**

Drag in a picture placeholder, size it, and click it to edit.

**ACKNOWLEDGEMENTS**

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**REFERENCES**


**SELECTED REFERENCES**

The selection of references is based on the research questions and the findings of the study.

**APPLICATIONS**

The research has implications for the design and implementation of treatment programs for individuals with aphasia.