Introduction

PWA are assumed to have mostly preserved semantic representations but impaired semantic control (Jefferies et al., 2010; Noonan et al., 2013) as demonstrated by phonemic cueing effects (Jefferies et al., 2008). PWA often have access deficits for less shared features (Marques et al., 2013) and low-importance distinctive features (Mason-Baughman & Wallace, 2014). Semantic Feature Based (SFB) Treatment has been successful in strengthening connections between the lexicon and semantic memory, which improves word retrieval (Kiran & Roberts, 2010) and discourse (Rider et al., 2008). Few researchers have examined semantic knowledge use in discourse, which could provide PWA with more difficulty and reduced access to certain types of semantic knowledge. Armstrong (2001) examined lexico-semantic verb categories and found PWA had restricted use, producing few mental and relational verbs.

Purpose and Hypothesis

Purpose: determine if semantic knowledge and category types are used differently in discourse by participants with anomic aphasia and controls

Hypothesis: Persons with anomic aphasia differ in distribution of semantic knowledge compared to controls

Semantic Knowledge Types

Semantic Knowledge Types

- Visual-Color
- Visual-Motion
- Visual-Color/Surface
- Sound
- Smell

Category Types

- Living Things
- Nonliving Things

INTRODUCTION

Smell

INTRODUCTION

Participants:

<table>
<thead>
<tr>
<th></th>
<th>Anomic Aphasia (N=19)</th>
<th>Control (N=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F:M</td>
<td>10:9</td>
<td>10:9</td>
</tr>
<tr>
<td>Age (SD)</td>
<td>62.74 (13.90)</td>
<td>62.95 (14.25)</td>
</tr>
<tr>
<td>Education (SD)</td>
<td>15.79 (2.92)</td>
<td>16.21 (2.92)</td>
</tr>
<tr>
<td>WAB AQ</td>
<td>88.83 (8.66)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

PWA had left hemisphere damage, anomic aphasia, no reported history of neurodegenerative disorders, and passed hearing and visual screenings. Controls had no history of stroke or head injury, passed hearing and visual screenings, and had normal cognitive function as indicated by MMSE.

Proportion of Semantic Knowledge Types

<table>
<thead>
<tr>
<th>Semantic Knowledge Types</th>
<th>Anemic Aphasia</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual-Motion</td>
<td>10.27 (6.32)</td>
<td>11.16 (3.71)</td>
</tr>
<tr>
<td>Sound</td>
<td>2.92 (1.93)</td>
<td>3.96 (2.10)</td>
</tr>
<tr>
<td>Tactile</td>
<td>4.22 (3.26)</td>
<td>4.46 (1.55)</td>
</tr>
<tr>
<td>Function</td>
<td>10.47 (5.64)</td>
<td>10.07 (2.84)</td>
</tr>
<tr>
<td>Encyclopedic</td>
<td>47.11 (9.65)</td>
<td>44.44 (5.24)</td>
</tr>
<tr>
<td>Internal</td>
<td>14.75 (7.76)</td>
<td>14.99 (3.83)</td>
</tr>
</tbody>
</table>

No significant differences between groups

<table>
<thead>
<tr>
<th>Proportion of Category Types</th>
<th>Anomic Aphasia</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anemic Aphasia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonliving Things</td>
<td>48.04 (9.58)</td>
<td>46.27 (7.03)</td>
</tr>
</tbody>
</table>

No significant group difference

DISCUSSION

Semantic Memory and Lexical Access

• Because of the similar distribution of semantic knowledge types and category types, PWA appear to be able to maintain a semantic simulation of the story.
• Decrease in all semantic knowledge types and category types, despite similar distributions, indicate a possible lexical access problem.
• Findings support previous research suggesting that semantic difficulty is not in semantic representations but the ability of PWA to control the lexical-semantic system.
• Findings disagree with Armstrong (2001); however, Armstrong used lexical-semantic categories and we used pure semantic knowledge type which may account for the differences.

Semantic Feature Based Treatment

• Researchers have found feature access difficulty at the lexical level that might lead to better SFB treatments for word recall.
• The present study found no semantic knowledge access difficulty at the discourse level.
• Problems within the samples appear to be lexical access problems.
• Improvements from SFB treatment in discourse may result from improved lexical access.

Future Research

• Replicate the study with different discourse tasks and different protocol.
• Use a more fine-grained semantic knowledge coding system.
• Expand to populations with degraded semantic memory such as adults with dementia

REFERENCES


