Efficacy of Semantic Feature Analysis for Individuals with Chronic Expressive Aphasia: A Critically Appraised Topic

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Introduction

• What is aphasia?
• Non-fluent (expressive) aphasia
• Chronic aphasia
  – 5+ years
• Treatment
  – Semantic Feature Analysis (SFA)
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Example

- Vehicle
- Drive
- Road trip
- Travel
- Tires
- On the road
Introduction

- What is aphasia?
- Non-fluent (expressive) aphasia
- Chronic aphasia
  - 5+ years
- Treatment
  - Semantic Feature Analysis
- Is Semantic Feature Analysis an effective intervention for people with non-fluent aphasia who are five or more years post-stroke?
## Methods

### Demographic and Clinical Information for Participants

<table>
<thead>
<tr>
<th>Study</th>
<th>Participant</th>
<th>Age</th>
<th>Gender</th>
<th>Months Post Onset (MPO)</th>
<th>Aphasia Type (Severity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyle &amp; Coelho, 1995</td>
<td>P1</td>
<td>57</td>
<td>M</td>
<td>65 (5 years, 4 mo)</td>
<td>Broca (Mild)</td>
</tr>
<tr>
<td>Rider et al., 2008</td>
<td>P3</td>
<td>62</td>
<td>M</td>
<td>126 (10 years, 6 mo)</td>
<td>Broca (Moderate)</td>
</tr>
<tr>
<td>Marcotte &amp; Ansaldo, 2010</td>
<td>P1</td>
<td>66</td>
<td>M</td>
<td>84 (7 years)</td>
<td>Broca (Severe)</td>
</tr>
<tr>
<td>Wambaugh et al., 2014</td>
<td>P3</td>
<td>55</td>
<td>M</td>
<td>79 (6 years, 7 mo)</td>
<td>Broca (Moderate)</td>
</tr>
<tr>
<td>Wallace &amp; Kimelman, 2013</td>
<td>P3</td>
<td>57</td>
<td>F</td>
<td>134 (11 years, 2 mo)</td>
<td>Broca</td>
</tr>
<tr>
<td>Hashimoto &amp; Frome, 2011</td>
<td>P1</td>
<td>72</td>
<td>F</td>
<td>120 (10 years)</td>
<td>Broca</td>
</tr>
</tbody>
</table>
Results

Trained Words

- CAR
- BRUSH
- WATCH
- CHAIR

Untrained Words

- TAXI
- PENCIL
- NECKLACE
- LAMP
Results

• Discourse and Connected Speech
  – Correct Information Units (CIUs)
  – Number of target words
  – Lexical Diversity

• Functional Communication and Peer Report
  – Communicative Effectiveness Index (CETI)
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Results

Functional Magnetic Resonance Imaging (fMRI)
Discussion

• Improvements in Confrontation Naming of Trained Words

• Improvements in Confrontation Naming of Untrained Words

• Improvements in Discourse and Connected Speech

• Changes in Brain Imaging
Discussion

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Limitations/Considerations

- Amount of research available
- “Chronic”
- Differences in administration
- Semantic relatedness of untrained words
- Treatment dose and duration
- Line drawings
Discussion

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Conclusion

SFA is at least as effective for people with chronic aphasia as it is for individuals with acute aphasia.
References


References


Food + meal → breakfast, lunch, or dinner

Food + meal + evening → dinner
Trained Words

- CAR
- BRUSH
- WATCH
- CHAIR

Untrained Words

- BUS
- COMB
- BRACELET
- SOFA
Trained Words

- CAR
- BRUSH
- WATCH
- CHAIR

Untrained Words

- BOOK
- BLANKET
- OVEN
- CAMERA
Example

- Chef as a career
- Making meals with utensils in the kitchen
- Related objects or actions: pots and pans