Evaluating discourse coherence in latent aphasia

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Background

- People with very mild or latent aphasia (PwLA) often experience communication challenges despite scoring above the cut-off on traditional aphasia assessments.
- Difficulties in communication often leads to reduced social participation, low self-confidence, and difficulties returning to work amongst these individuals (Cavanaugh & Haley, 2020).
- Due to their high-level language deficits, PwLA often do not meet the criteria for aphasia services, resulting in a lack of essential treatment (Richardson et al., 2021).
- Discourse analysis has emerged an important tool in effectively identifying language impairments in latent aphasia and differentiating between healthy controls and other aphasia types (e.g., DeDe & Salis, 2020; Fromm et al., 2013).
- PwLA show difficulty with discourse productivity and informativeness, slower speech rates, mean length of utterances (MLU), and fewer main concepts compared to non-aphasic controls (Dalton & Richardson, 2015; Fromm et al., 2017).
- PwLA may demonstrate extralinguistic cognitive deficits (Salis & DeDe, 2022; Silkes et al., 2021).
- Such cognitive-linguistic impairments can disrupt the overall meaning and connectedness of discourse during social conversations.
- To date, our understanding of discourse coherence in latent aphasia remains limited.
- Producing coherent discourse is fundamental to effective everyday communication – it facilitates understanding, maintains engagements, and supports overall interpersonal success.

Specific Aims

- To assess discourse coherence in individuals whose language was affected by stroke, but they performed within the normal range of performance on the Western Aphasia Battery (WAB-R; Kertesz, 2007).
- To compare performances with anomic aphasia and non-aphasic healthy controls (HC).

Methods

- Transcripts of Cinderella story narratives retrieved from AphasiaBank (MacWhinney et al., 2011).
- Computerized Language Analysis (CLAN) – Transcripts analyzed for productivity, fluency, lexical features, and grammatical complexity.
- Coherence - Linnik et al.’s (2022) rating rubric

Results

- Significant group differences on microlinguistic measures (all p < .006)
  - PwLA did not differ from HC on all microlinguistic variables.
  - PwLA consistently showed significantly lower scores compared to HC on all four domains of the coherence rubric.
  - WAB-R AQ did not show any correlation with coherence scores in the latent aphasia group but did for the anomic group.

Discussion and Conclusion

- Narrative coherence impairments are common in latent aphasia.
- Linnik et al. (2022)’s rating-based assessment effectively captured coherence impairments in latent aphasia, whereas basic linguistic variables were less consistent in distinguishing between the groups.
- A comprehensive approach that incorporates both micro- and macro-linguistic analysis is necessary to enhance the diagnostic sensitivity of language assessments for latent aphasia.

Select References


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