Title: Standardizing assessment of spoken discourse in aphasia: Directions for future research

Short abstract (100 words)

Difficulties in spoken discourse impact everyday communication in people with aphasia. Consequently, discourse analysis is a topic of increasing interest in aphasia assessment and research. Despite the development of a wide number of procedures to elicit and evaluate spoken discourse in aphasia, reporting practices of such procedures have been inconsistent across studies. Moreover, the psychometric quality of many of these frequently used methods remain unspecified. Therefore, it is critical to establish standardization and consistency in discourse collection and analysis procedures and evaluate the quality of outcome measures to improve our understanding of discourse performances and document treatment-related improvement in aphasia.

Extended abstract (750 words)

Introduction

Discourse, a fundamental aspect of functional communication, is commonly impaired in aphasia (Bryant, Ferguson, & Spencer, 2016; Fromm et al., 2017). Spoken discourse analysis has received increased empirical attention as a means to describe language ability and document aphasia treatment effects in language functions (Dietz & Boyle, 2018). Albeit numerous measures have been developed to evaluate spoken discourse abilities in persons with aphasia (Dipper & Pritchard, 2018), the psychometric properties and clinical utility of these measurement procedures have not been systematically examined. An overall shift of the field toward standardized collection, analysis, and reporting of discourse measures is required.

Aims

The aims of this roundtable discussion are to: (1) provide a brief overview on the current state of spoken discourse assessment in aphasia, (2) exchange views on proposed best practices to standardize the elicitation and analysis of discourse samples and reporting of methods, and (3) develop concrete next steps to facilitate systematic use of spoken discourse analysis in aphasia research and rehabilitation.

Apart from further research delineating the psychometric quality of spoken discourse measures, we propose that future studies in this area must provide clear, specific information about procedures (i.e., sample acquisition and analysis) to maintain transparency and, importantly, to facilitate replication of findings. In this roundtable, we will discuss standards for:

a. describing the exact training procedures used for transcribing and analyzing samples, including reporting information regarding raters;
b. reporting psychometric analyses and discussing prior research that have documented the psychometric properties of discourse variables and/or analysis procedures (e.g., Altman, Goral, & Levy, 2012; Kendall et al., 2008); and,
c. reporting of discourse outcomes in lieu of high inter-sample variability, especially a move toward establishing standard microlinguistic compound scores.

Content

Moving beyond solely assessing single-word and sentence-level productions, spoken discourse assessment has proven to be an ecologically valid metric to capture meaningful communication change in aphasia. Researchers have frequently examined microlinguistic (e.g., productivity, lexical-syntactic organization), and/or macrolinguistic components (e.g., cohesion, coherence, story grammar) of discourse in people with aphasia (Andreetta, Cantagallo, & Marini, 2012; Armstrong, 2000; Cahana-Amitay & Jenkins, 2018).

Despite extensive documentation of spoken discourse abilities in aphasia, findings remain inconclusive given discourse measure heterogeneity across studies (Bryant et al., 2016; Dietz & Boyle, 2018; Pritchard, Hilari, Cocks, & Dipper, 2017, 2018). Other issues contributing to these inconclusive findings include (Dietz & Boyle, 2018; Pritchard et al., 2017): (a) the psychometric properties of even some frequently used discourse measures (e.g., correct information units, global and local coherence) are not yet established; and, (b) vague or inadequate description of discourse elicitation and analysis procedures, which further restricts comparison of outcomes across studies or use in clinical practice. With the considerable push toward publishing replication of findings, standards for reporting spoken discourse methodology are necessary.

Recently Wallace, Worrall, Rose, & Le Dorze (2017) proposed developing a core outcome set (COS) for aphasia treatment research, including measures in language, communication, emotional well-being, and quality of life. However, these authors did not consider discourse. Therefore, spoken discourse analysis requires standardization and validation for enhanced replicability and robustness in aphasia research and clinical practice.

Questions / Topics for discussion
(1) Summarize the most common outcome measures currently being used to evaluate spoken discourse.
(2) Given the wide variability in individual spoken discourse outcome measures across and within persons with aphasia in concert with robust understanding of the relationships between microlinguistic properties, brainstorm compound scores to represent overarching spoken language abilities.
(3) Given the need for replication of spoken discourse studies in aphasia and relatedly, reporting standards, facilitate discussion of the procedures used across different labs to collect, process, and report spoken discourse data.

Participation engagement methods/strategies

During the round table discussion session, all attendees will be provided with a handout that briefly summarizes current research findings on the psychometric quality of spoken discourse production measures in aphasia. The information in the handout will also be reviewed by the main facilitator. Following this, we will discuss currently-used and proposed standards for spoken discourse data collection and analysis procedures. All participants in the discussion group will be then asked to create 'gold standards' for two areas: 1) reporting of procedures used to acquire data, train raters, and report psychometric properties, and 2) creation of more robust microlinguistic compound scores. Responses will be discussed among all attendees and everyone will be encouraged to participate in the discussion.

References

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