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### Citation Details

Wright, H. H., Koutsoftas, A., Fergadiotis, G., & Capilouto, G. (2010). Coherence in stories told by adults with aphasia. *Procedia-Social and Behavioral Sciences*, 6, 111-112.

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Academy of Aphasia 2010

## Coherence in Stories told by Adults with Aphasia

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### Introduction

Discourse coherence is the conceptual organization of discourse and it can be subdivided into two types: global and local. Of interest for the current study is global coherence; that is, how the discourse relates to the overall topic (Glosser & Deser, 1990). Coherence has been measured in persons with aphasia (PWA) using different elicitation tasks (e.g., recounts, story retelling, event-casts) and different scoring methods (i.e., rating scales, coherence violations, total counts) and results have varied across studies (Christiansen, 1995; Coelho & Flewellyn, 2003; Glosser & Deser, 1990; Ulatowska, et al., 2004). These differences may reflect differences in how coherence is conceptualized, as well as the different methods for measuring it and differences in aphasia presentation of study participants.

The purpose of the present investigation is to determine global coherence ability in adults with aphasia for story-telling. The research questions are: (1) How does a four-point scoring system relate to Glosier and Deser's five-point scale?; and (2) Do participants with and without aphasia differ in discourse coherence ability on a story-telling task?

### Method

Study participants included 14 PWA and 14 cognitively healthy adults. Aphasia presentation was confirmed through performance on the Western Aphasia Battery-Revised (Kertesz, 2007) as well as clinical judgment. All participants completed a battery of cognitive assessments and told stories depicted in two wordless pictures books.

The language samples were orthographically transcribed, segmented into c-units, and subjected to coherence analyses. Coherence was calculated using the Koutsoftas et al., (2009) four-point scoring system. A score of 4 indicated the c-unit was overtly related to the stimulus whereas a score of 1 indicated the c-unit was entirely unrelated to the topic. Language samples were also subjected to Glosser and Deser's (1990) five-point global coherence rating scale.

### Results and Conclusions

Preliminary analyses were conducted. The preliminary results indicated that the global coherence scores for the two scoring systems were significantly correlated,  $r = .73$ ,  $p = .02$ . Further, the cognitively healthy group received significantly better scores compared to the PWA,  $F(1,19) = 23.16$ ,  $p < .01$ . Clinical implications of the findings will be discussed. Further, results of the study will be discussed in a discourse processing framework.

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