Cohesion in narratives written by participants with aphasia

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Background

The number of studies analysing written discourse and aphasia are limited but results indicate similarities with spoken language, in that general narrative structure is good despite manifested difficulties on other linguistic levels. This study is using analyses of cohesion suggested by Armstrong (2000) based on the work by Halliday and Hasan (1976) where cohesion was defined as a semantic relation between an element in the text and some other element that is crucial to the interpretation to it (Halliday, 1976, p 8).

Purpose

The aim of the present study is to analyse how cohesion is related to coherence in a written narrative made by persons with aphasia. The research questions are:

1. Do writers with aphasia differ from a reference group in the number of complete cohesive ties T-unit when producing a free narration?
2. Do writers with aphasia differ from a reference group in the distribution of cohesive ties when producing a free narration?
3. Does cohesion predict how readers rate written narratives on coherence?

Results

Analysis showed that the participants with aphasia produced significantly fewer complete cohesive ties (mean 1.7, SD 0.6) than the participants in the reference group (mean 2.5, SD 0.33) (z=-2.8, p=0.004).

There was however no significant difference between the two groups' distribution of cohesive ties. The most preferred ties were referential cohesive ties (39%), reiterations (22%) and collocations (21%).

Results from the regression analysis showed that 31.7% of the variance of the ratings for the stories written by the participants with aphasia was explained by the model. The four variables made significant unique contributions to the model: (in descending order of significance) word total, clauses per T-unit, word-level errors and complete cohesive ties per T-unit. Table 1.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Adjusted R²</th>
<th>Word total (Beta)</th>
<th>Clauses per T-unit (Beta)</th>
<th>Word-level errors (Beta)</th>
<th>Complete cohesive ties per T-unit (Beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incoherence/ coherence</td>
<td>0.317**</td>
<td>-0.337**</td>
<td>0.372**</td>
<td>-0.337**</td>
<td>0.277**</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01

Eight men and two women with aphasia in the age range of 28 to 67 years (mean 42.5 years) took part in the study. The participants were asked to tell a story on the topic "I have never been so afraid". The narratives were produced on a Macintosh computer. The written texts were analysed for number of complete cohesive ties/T-unit and for diversity of cohesive ties. The group’s results were compared with findings from ten participants in a reference group.

Results from an earlier study (Behrens, Broberg, Wengelin, Hartelius, 2009) was included where 8 of the same written texts were rated holistically on the basis of questionnaires regarding the impression of coherence. Multiple linear regression analysis was used to determine how much of the variance of the ratings could be accounted for by the measured variables. The model included (1) total amount of words in the stories, (2) clauses per T-unit, (3) proportion of word-level errors and (from the present study) (4) complete cohesive ties per T-unit.

Conclusions

The participants with aphasia wrote narratives containing incomplete cohesive ties. However the stories were produced with a diversity of cohesive ties that were similar to the pattern of the reference group’s. This is in accordance with results from a study of oral narratives by Lock and Armstrong (1997) where participants with aphasia produced stories with "the full repertoire" of cohesive ties. Regression analysis revealed that the measured variables used in the present study could partially predict how the written stories would be rated regarding coherence. The explanation for the rest of the variance needs further analysis and research; it is probably due to a very complicated network of specific and more general variables related to the text but also to the reader.

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"Jag har aldrig varit så rädd som när språket försvann för mig. När jag förstod att språket inte kom tillbaka spontant."

"I have never been so afraid as when my language disappeared from me. When I understood that my language was not returning spontaneously."

AF, A-group