Conversational Turn Length and Fluency Measurement in Aphasia

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Introduction

A common assumption regarding fluency is that the difference between a fluent and non-fluent speaker can be easily stated (Poéck, 1989; Gordon, 1998). However, there is no objective and valid measure to determine the level of a person with aphasia on the fluency continuum. Traditionally, people with aphasia have been classified as fluent or non-fluent following the cognitive criteria. (Uribe, Arana & Lorenzana, 1969; Goodglass & Kaplan, 1986; Kertesz, 1994; Price et al., 2003)

Aim

The present study has attempted to clarify differences between fluent and non-fluent patterns of speech using analysis data from natural conversation settings.

Data analysis

All analyzed conversations were fragments of 20 minutes chosen at random from conversation of one hour length. Fluency measurement has to be developed which can be adapted to the different types of discourse and their components; at the same time, the formula used has to indicate where the patient in the continuum of fluency is.

The formula evolved was:

speaker total words / speaker total speech turns.

Results

<table>
<thead>
<tr>
<th>Fluency Diagnosis</th>
<th>Total Words</th>
<th>Total Speech Turns</th>
<th>Words per Turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluent speakers</td>
<td>1,200</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Non fluent speakers</td>
<td>600</td>
<td>15</td>
<td>40</td>
</tr>
</tbody>
</table>

Discussion

73 words-per-turn value is a valid measure in Spanish and Catalan to delimit fluent and non-fluent speakers. These results emphasize the importance of the quantitative analysis of fluency in speech in its natural environment.

As well, the measure of 7.3 words-per-turn not only can determine the difference between fluent and non-fluent speaker, but allows the diagnosis of severe fluency deficits as motorrea or mutism.

References