Duration of hesitation phenomena in adults without fluency disorders

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1. Objective
To explore the duration of hesitation phenomena in speech samples produced by adults without stuttering or cluttering.

2. Method
Subjects:
• Five male adults (from 20 to 34 years old);
• Native speakers of Brazilian Portuguese;
• Without communication disorders.

Procedures: each subject produced four speech samples:
1. picture description
2. personal description
3. cartoon narrative
4. personal narrative

Praat software was used to separate intervals with and without hesitation phenomena.

Statistical analysis were used to compare the samples, with alpha level at 0.05.

3. Results
Hesitations filled around 19% of speech time (ranging from 9% to 38%).
This is different from zero (t = 11.68, p < 0.05).

Descriptive statistics of intervals with and without hesitation phenomena:

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervals with hesitations</td>
<td>0.90 s</td>
<td>1.17 s</td>
<td>0.95 s</td>
</tr>
<tr>
<td>Intervals without hesitations</td>
<td>2.78 s</td>
<td>4.27 s</td>
<td>4.63 s</td>
</tr>
</tbody>
</table>

Proportion of 4:1

The intervals without hesitations were longer than the ones with hesitations (Z = 10.91, p < 0.05).

Intervals with hesitations \(\rightarrow\) gamma distribution

- 55% of hesitation intervals were under 1 second.
- 85% of hesitation intervals were under 2 seconds.
- 95% of hesitation intervals were under 3 seconds.

There were not statistical differences of hesitation intervals regarding textual types (p > 0.05) or picture support (p > 0.05).

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