Multisyllabic words in Spanish-speaking children with protracted phonological development

Christine Schretlen*, B. May Bernhardt*, Denisse Perez (U. of Valparaíso, Chile), Carmen Ávila (U. of Granada), Joseph P. Stemberger*

Abstract

Canadian speech-language pathologists (SLPs) need to assess Spanish-speaking children's phonology. Multisyllabic words were studied in 59 Granada Spanish-speaking preschoolers with typical (TD) and protracted phonological development (PPD). Mismatches in number of syllables, stress pattern and word structure vary by age, group, and word length. The data may serve as a guide to evaluation of multisyllabic words in Spanish-speaking children.

Introduction

- Canadian SLPs increasingly need to assess Spanish-speaking children. Spanish is the 3rd most common immigrant language as mother tongue in Canada (Statistics Canada, 2012).
- Typically developing Spanish-speaking children master words with 2 and 3 syllables relatively early compared with English learners (Pitrieva & Manzano, 2000; Astruc et al., 2007).
- Data from typically developing English-speaking children show age and syllable length effects on mismatches in multisyllabic word (MSW) productions (Jámes, 2006).

Study Objectives

- To explore how children’s age, gender and group (PPD or TD) relate to word structure mismatches on MSWs, based on a composite score of deletions, insertions and stress shift.
- To compare word structure accuracy in initial unstressed vs. medial stressed syllables.

Method

- Participants: N = 59 monolingual Spanish-speaking children in Granada, Spain.
  - All have typical hearing, cognition and language development.
  - PPD group: n = 29 (12 females, 17 males); TD group: n = 30 (16 females, 14 males).
- Data collection: single-word picture-naming elicitation.
  - 99-110 words in full set, with subset of 42 multisyllabic words used for analysis.
  - Transcribed phonetically by native speakers in Granada, confirmed by Bernhardt’s research lab.
- Data analysis: mismatches coded for # of syllables, stress, and word shape (CV).

Results

- Overall % match increases with age, decreases in longer words and is lower among children with PPD.

Most Common Types of Word Mismatches per Participant (words without CC)

- Syllable Deletion
- Consonant Deletion
- Vowel Deletion

Discussion and Clinical Implications

- Performance on # of syllables, word shape (CV) and stress in MSWs varies by word length, age and group, with an age decline in mismatches.
- Initial unstressed (weak=s) syllables appear more vulnerable for mismatches than medial or final stressed syllables, more at age 3 than at ages 4 and 5 for both groups.
- These data provide criteria for identification of protracted phonological development in terms of word structure for Spanish-speaking children at ages 3 and 4. The Spanish and other language elicitation tools are available at: http://blogs.ubc.ca/crosslinguisticprojectmaterials/

References:


Acknowledgments: The authors thank the children and families for their participation and the Canadian funding agency SSHRRC.

Contact B. May Bernhardt at bernhardt@alumni.ubc.ca for more information on the crosslinguistic study. A digital copy of this poster is available at: http://blogs.ubc.ca/crosslinguisticprojectmaterials/

Granada Spanish Consonant Inventory

<table>
<thead>
<tr>
<th>Labial</th>
<th>Dento-alveolar</th>
<th>Palato-alveolar</th>
<th>postalveolar</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>b</td>
<td>d</td>
<td>t</td>
</tr>
<tr>
<td>T</td>
<td>d</td>
<td>t</td>
<td>d</td>
</tr>
</tbody>
</table>

- The term “protracted phonological development” is sometimes known as “speech-sound disorder” or “phonological disturbance/developmental disorder.” The term “protracted” has a more positive implication, in that it assumes people will eventually achieve typical speech development. 
- The terms “language elicitation tools” refer to the multisyllabic word list and the website of crosslinguisticprojectmaterials.

Method

- Participants: N = 59 monolingual Spanish-speaking children in Granada, Spain.
  - All have typical hearing, cognition and language development.
  - PPD group: n = 29 (12 females, 17 males); TD group: n = 30 (16 females, 14 males).
- Data collection: single-word picture-naming elicitation.
  - 99-110 words in full set, with subset of 42 multisyllabic words used for analysis.
  - Transcribed phonetically by native speakers in Granada, confirmed by Bernhardt’s research lab.
- Data analysis: mismatches coded for # of syllables, stress, and word shape (CV).

Results

- Overall % match increases with age, decreases in longer words and is lower among children with PPD.

Most Common Types of Word Mismatches per Participant (words without CC)

- Syllable Deletion
- Consonant Deletion
- Vowel Deletion

Discussion and Clinical Implications

- Performance on # of syllables, word shape (CV) and stress in MSWs varies by word length, age and group, with an age decline in mismatches.
- Initial unstressed (weak=s) syllables appear more vulnerable for mismatches than medial or final stressed syllables, more at age 3 than at ages 4 and 5 for both groups.
- These data provide criteria for identification of protracted phonological development in terms of word structure for Spanish-speaking children at ages 3 and 4. The Spanish and other language elicitation tools are available at: http://blogs.ubc.ca/crosslinguisticprojectmaterials/

References:


Acknowledgments: The authors thank the children and families for their participation and the Canadian funding agency SSHRRC.

Contact B. May Bernhardt at bernhardt@alumni.ubc.ca for more information on the crosslinguistic study. A digital copy of this poster is available at: http://blogs.ubc.ca/crosslinguisticprojectmaterials/