OVERVIEW: Current English and Spanish nonword repetition tasks vary from each other in the degree to which they have focused on the manipulation of language-specific units. The current experiment investigated the effect of Spanish-specific patterns, degree of wordlikeness and stress pattern, on the nonword repetition performance of Spanish-speaking four- to six-year old English language learners.

NONWORD REPETITION
- In monolingual, English-speaking children, repetition accuracy correlates with established word knowledge and depends on the intrinsic characteristics of the NWR items (e.g., phonotactic probability and wordlikeness, see Edwards, Beckman, & Munson, 2004; Gathercole, 1995). Results not yet replicated with bilingual Spanish-English learners.
- Not all English and Spanish NWR measures developed with intent to analyze the types of phonological knowledge that provide a basis for word learning.

LANGUAGE-SPECIFIC PATTERNS
- Wordlikeness – The extent to which a nonword resembles real words in an individual’s native language lexicon
- Stress assignment in Spanish (Hualde, 2005) – 95% of nouns and adjectives follow these patterns:
  - Penultimate (unmarked) – word final vowels or consonants (e.g., bat - bat)
  - Final – other consonants (e.g., ciudad - city)

RESEARCH QUESTIONS
1. Is there an effect of wordlikeness on Spanish nonword repetition?
2. Is there an effect of stress pattern on nonword repetition?

METHODS
Participants
- n = 68 children:
  - n = 21, four years of age
  - n = 25, five years of age
  - n = 22, six years of age
- Spanish language use: Between 75-100% of the time during meal-times and other family routines
- Enrolled in low-income preschool programs
- No history of speech, language, or hearing disorders

Materials
- n = 36 nonwords, 2, 3, & 4 syllables in length, with either final stress or penultimate stress
- Nonwords’ onset and rime constituent probabilities calculated from a modified version of the Spanish Callhome Lexicon (Linguistic Data Consortium)
- Constituent probabilities sensitive to position in word, syllable, and stress (e.g. stressed word-initial onset vs. unstressed word-medial onsets)
- Constituents randomly selected to create nonwords
- Expected probabilities of the nonwords computed by the product of constituent probabilities (Coleman & Pierrehumbert 1997)

RESULTS Q1
- Repetition errors influenced by wordlikeness
  - High wordlikeness < low-wordlikeness
  - Paired t-test, t(67) = 3.0, p < .01

RESULTS Q2
1. Repetition not influenced by stress pattern, t(67) = 1.0, p > .05.
2. Exploratory Analyses – Significant Word Length x Stress x Wordlikeness interaction, F(2,130) = 2.1, p < .001
   - Most errors in 3 syllable, penultimate stressed low-wordlikeness nonwords (M = .370, CF = .341 – .399)
   - Reversal in wordlikeness effect for 3 syllable, final stressed nonwords: highly wordliker > low-wordlikeness
   - Most effects from two nonwords: biebaplio (high error rate), leiskebe (low error rate)

REFERENCES
Chiappe et al. (2002) X
Gottardo (2002) X X
Gottardo et al. (2008) X X

SPANISH NWR MEASURES
Calderon and Gutierrez-Clellen (2003) X X X

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DISCUSSION
- Wordlikeness influenced repetition accuracy, replicating findings from English studies (Edwards et al., 2004; Gathercole, 1995; Gathercole, Frankish, Pickering, & Peak, 1999; Hoff, Core, & Bridges, 2008).
- Stress pattern did not appear to affect repetition accuracy (when stimuli controlled for wordlikeness and phonotactic probability).

- Methodological implications
  - Current Spanish NWR tasks vary from each other in the degree to which they have focused on the manipulation of language-specific units.
  - Adult wordlikeness ratings a necessary methodological step in the development of nonwords and an influential factor in repetition accuracy in Spanish and English.

- Future studies:
  - Influence of vocabulary and literacy skills on nonword repetition in Spanish and English.
  - Prospective differences in nonwords with shared and unshared phonotactic patterns across languages in bilinguals.