**GRAMMATICALITY IN SPANISH-ENGLISH BILINGUAL PRESCHOOLERS’ NARRATIVES**

**BACKGROUND & PURPOSE**

- Well-documented academic achievement gap of English learners (ELs) (Hammer et al., 2014).
- Language sampling analysis (LSA) is a naturalistic, least-biased, and educationally appropriate assessment procedure for the bilingual population (Paul & Norbury, 2012).
- Narrative LSA of Spanish-speaking English learners (ELs) predicts bilingual reading skills (Miller et al., 2006).
- Proportion of ungrammatical utterances suggested to indicate typical and impaired language development in ELs (Peña, Gillam & Bedore, 2014).
- Typically developing (TD) ELs tense-marking error patterns mark differences with tense marking or other morphosyntactic errors.
- Addresses the need for longitudinally-based, developmental data on bilingual preschoolers (Hoff, 2013).

**METHOD & ANALYTIC APPROACH**

**Participants and language samples**

- 39 TD bilingual preschoolers tracked longitudinally over one school year: fall (Wave 1) and spring (Wave 2).
- Pre-analysis sample exclusions (Wave 1 = 5; Wave 2 = 3).
- Excluded transcripts with scarce opportunities for tense marking during preliminary analysis:
  - Transcripts primarily consisting of labeling (> 90% utterances without one main verb) (Wave 1 = 2).
  - Transcripts that contained < 8 complete and intelligible utterances (Wave 1 = 1).
- Total analyzed English language samples N = 67 (Wave 1 = 31; Wave 2 = 36).

**Language sampling analysis (LSA) procedure**

- The following frog stories were counterbalanced: Frog Where Are You?; Frog Goes to Dinner; Frog On His Own; One Frog Too Many (Mayer, 1969, 1974, 1975a, 1975b).
- Children provided narrative retell language samples in both English and Spanish during each semester (Waves 1-2).
- This study focuses on narrative retells in English.
- Narrative retell language samples orthographically transcribed in SALT 2012 (Miller & Iglesias, 2012).
- Calculated % Ungrammatical utterances (%U) in English as an overall indicator of grammaticality and language development (Bedore, Fiestas, Peña, & Nagy, 2006).

**Coding of morphosyntactic error patterns**

- Tense and agreement morphemes in English provide information about person, number, and time in utterances.
- These grammatical morphemes include inflections (e.g., 3rd person singular = “he jump”) and function words (e.g., copula and auxiliary verbs “he is sad”) (Guo & Eisenberg, 2014).
- Coded tense-marking errors vs. other morphosyntactic errors that render sentences ungrammatical.
- Tense-marking errors: “The frog jump” → C The frog jump/ed [U].
- Other morphosyntactic errors: “The frog kissed nose” → C The frog kiss/ed *his nose [U].

**Aim 1**

**How does L2 grammaticality change over time?**

Proportion of L2 ungrammaticality significantly decreased between:
- Beginning of the school year (X = 43; SD = 20)
- End of the school year (X = 32; SD = 15)

\[
 t(28) = -3.49, p < .01, d = 1.88
\]

The magnitude of this decrease in L2 ungrammaticality represents a medium effect size (Cohen’s \(d\)).

**Discussion**

- Proportion of L2 ungrammaticality decreases during preschool, but is still relatively high.
  - On average, one out of three utterances is ungrammatical.
  - Ungrammaticality seems to be part of developmental L2 acquisition process.
  - High variability across participants.
  - English tense morphemes as specific problem area during L2 acquisition.

**Aim 2**

What drives the longitudinal changes in L2 ungrammaticality: Difficulties with tense marking or other morphosyntactic errors?

Significant difference in proportion of tense-marking errors compared to other morphosyntactic errors in L2 at each time point.

**Wave 1 (Fall):**

\[
 t(30) = 4.99, p < .001, d = 1.88
\]

**Wave 2 (Spring):**

\[
 t(35) = 5.64, p < .001, d = 1.88
\]

The magnitude of these differences are illustrated by large effect sizes (Cohen’s \(d\)).

**Future steps**

- In-depth analysis of L2 tense-marking patterns:
  - Compare correct tense marking relative to no tense marking and incorrect use of tense marking.
  - Compare bare stem use on regular and irregular verbs vs. overregularizations and double-marking.
  - Confirm or rule out gender-based differences.
- Purpose: Analyze the productive use of tense-marking to indicate progress towards the complete acquisition of the tense-marking system in English.

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