One in five school children speak a language other than English at home.

Disclosure Statement

Nonfinancial — None

Financial —

Ellen Kester is the founder and owner of Bilinguistics. Ellen Kester and Mary Bauman receive salaries from Bilinguistics. Bilinguistics receives royalties from product sales.
Disproportionality

ELLs
Separate, but interacting systems

*Interactional Dual Systems Model* of phonological representation suggests that bilingual children possess two separate phonological systems with mutual influence. These systems are separate, yet non-autonomous (Paradis, 2001).

Unified Competition Model

- **Positive transfer**
  - Occurs when forms/structures are consistent across two languages.
- **Negative Transfer**
  - Occurs when forms/structures are not consistent across two languages.
Worse than monolingual peers

• Bilinguals with TD compared to English monolingual peers 3 year olds
  − Lower intelligibility
  − Higher percentage of Phonological Processes
  − More uncommon patterns
  − Gildersleeve-Neumann, Easter, Davis & Peña, 2008

• 4-y.o. bilinguals with TD compared to monolingual peers in both languages
  − Bilinguals were less accurate than monolinguals in Spanish on three sound classes
  − Goldstein & Washington, 2001

• Bilingual English-Spanish 3-year-olds produced lower consonant accuracy than monolingual Spanish speakers
  − Fabiano-Smith & Goldstein, 2010

• Cantonese-English bilinguals compared retrospectively to monolingual peers
  − Bilinguals lagged behind monolingual peers
  − Dodd, So, Li, 1996

The same as monolingual peers

• Bilingual 3 year olds with TD no different than monolingual English speakers on overall consonant accuracy
  − Fabiano-Smith & Goldstein (2010)

• Simultaneous and sequential bilingual 3-4 year olds had patterns of sound acquisition similar to monolingual peers
  − Arnold, Curran, Miccio, & Hammer, 2004

• 4-year-old bilinguals did not differ from monolingual peers in consonant accuracy or phonological processes.
  − Goldstein & Washington, 2001

• 5-year-old bilinguals did not differ from monolingual peers in consonant accuracy or phonological processes
  − Goldstein, Fabiano, & Washington, 2005

Better than monolingual peers

• Bilingual Maltese-English children ages 2-6 demonstrated more advanced phonological skills than than monolingual Maltese children.
  − Grech & Dodd, 2008

• Bilingual German-Spanish-speaking children had a higher rate of coda productions than monolingual Spanish speakers.
  − Kehoe, Trujillo, & Lleó, 2001
  − Lleó, Kuchenbrandt, Kehoe & Trujillo, 2003

Why such variation in findings?

• Bilingual 3 year olds with TD no different than monolingual English speakers on overall consonant accuracy
  − Fabiano-Smith & Goldstein (2010)

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Why such variation in findings?
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The Current Study

• Identify frequencies of patterns of phonological processes in Spanish-English bilingual children.
• Provide data that can be used to support diagnostic decisions.
• Identify patterns not captured in other studies.
The Tool: Bilingual Articulation & Phonology Assessment

- **Spanish**
  - 49 words
  - 109 phoneme & consonant cluster opportunities
  - Evaluates each phoneme in each position at least 2 times
  - Multisyllabic words

- **English**
  - 58 words
  - 150 opportunities to produce phonemes & consonant clusters
  - Evaluates each phoneme in each position at least 2 times
  - Multisyllabic words

Phonological Processes Explored

- Flap/Trill Deviation
- Cluster Reduction
- Unstressed Syllable Deletion
- Gliding
- Cons. Sequence Reduction
- Stopping
- Backing
- Initial Consonant Deletion
- Assimilation
- Deaffrication
- Velar Fronting
- Voicing
- Fricativization
- Affrication
- Lateralization
- Liquid Simplification
- Medial Consonant Deletion
- Labialization
- Devoicing
- Palatal Fronting
- Depalatalization
- Denasalization
- Epenthesis
- Fricative Simplification
- Vocalization
- Final Consonant Deletion
Bilingual children in this study:

- Demonstrate a decreasing use of phonological processes over time. By age 8 processes are suppressed
- Use more processes and a higher frequency of processes in English than in Spanish
- Greater interference/influence of Spanish on English productions than the reverse

Clinical Implications

- Understanding of processes not expected in English of bilinguals to prevent *underidentification*
Clinical Implications

- Frequency and types of processes differ
  - Closer look at differentiated treatment to reduce processes expressed differently in each language

Additional Resources

- Link to Live Site