

Patterns of
Phonological
Processes in
Spanish-English
Bilingual Children



March 13, 2015
Webinar

Ellen Stubbe Kester
Mary Bauman


BILINGUISTICS

3

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.

BILINGUISTICS

4



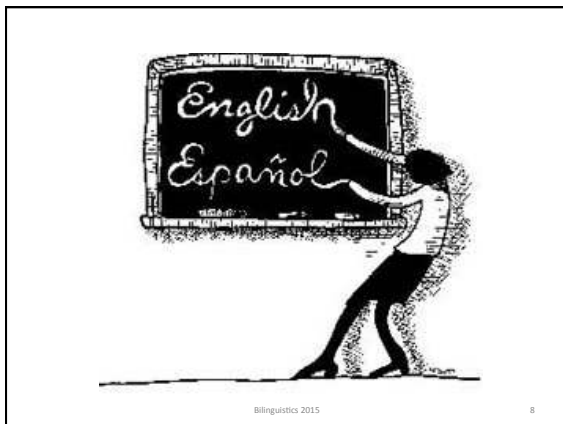
One in five school children speak a language other than English at home.

Bilinguistics 2015

5







Disproportionality



Bilingualistics 2015

9



Bilingualistics 2015

10

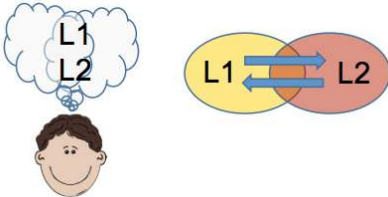


Bilingualistics 2015

11

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).



Bilinguistics 2015

12

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.



Bilinguistics 2015

13



Bilinguistics

14

Worse
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, Kester, 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)

Bilinguistics 2015 15

Same
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

Bilinguistics 2015 16

Better
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

Bilinguistics 2015 17

Why such variation in findings?

18

Why such variation in findings?

Bilingualistics 2015 19

Why such variation in findings?

Bilingualistics 2015 20

Why such variation in findings?

The diagram shows a group of people on the left, with arrows pointing to a larger group on the right. To the right of the groups is a word cloud containing various greetings in multiple languages: Feia (Hawaiian), 안녕하세요 (Korean), こんにちは (Japanese), aloha (Hawaiian), Bonjour (French), Hej (Danish), hallo (German), 你好 (Chinese), 안녕하세요 (Korean), Ola (Portuguese), Ciao (Italian), Guten tag (German), Goddag (Icelandic), Ulan somi (Icelandic), and Shalom (Hebrew). The word 'hello' is prominently displayed in red.

Bilinguistics 2015 21

Why such variation in findings?

The diagram is identical to slide 21, showing a group of people and a word cloud of greetings. Below the diagram is a black rectangular box followed by a white rectangular box.



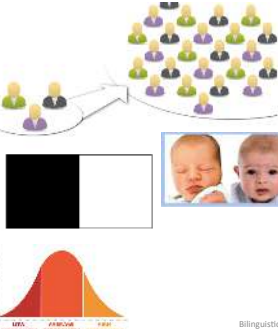
Bilinguistics 2015 22

Why such variation in findings?

The diagram is identical to slide 21, showing a group of people and a word cloud of greetings. Below the diagram is a black rectangular box followed by a white rectangular box, and then a row of six diverse children's faces.



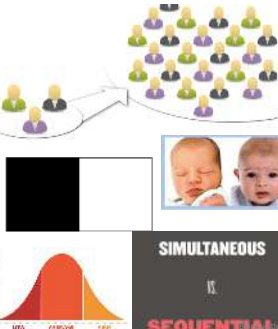
Bilinguistics 2015 23

Why such variation in findings?



Billinguistics 2015 24

Why such variation in findings?



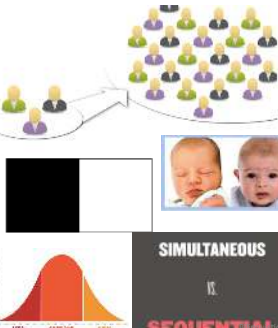


SIMULTANEOUS

SEQUENTIAL


Billinguistics 2015 25

Why such variation in findings?



SIMULTANEOUS

SEQUENTIAL



Billinguistics 2015 26

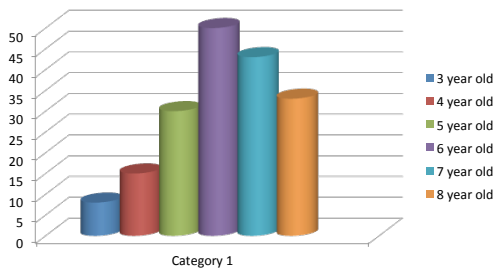
The Current Study

- 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

Bilingualistics 2015

27

Participants




Bilingualistics 2015

28

Participants



Bilingual Profile




Spanish

English

Bilinguistics 2015 30

Procedures

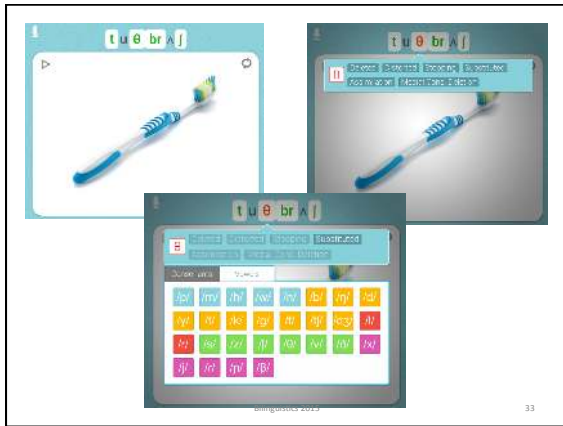


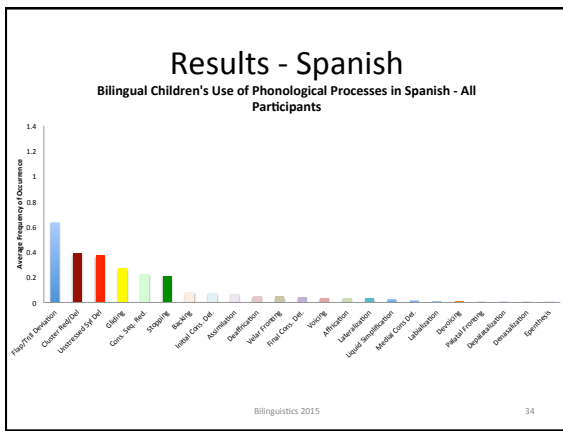
Bilinguistics 2015 31

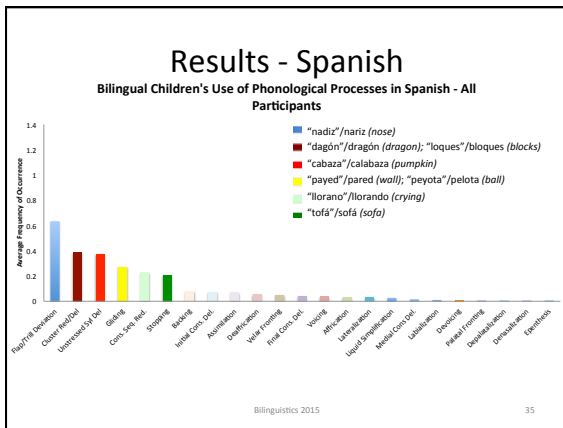
The Tool: Bilingual Articulation & Phonology Assessment

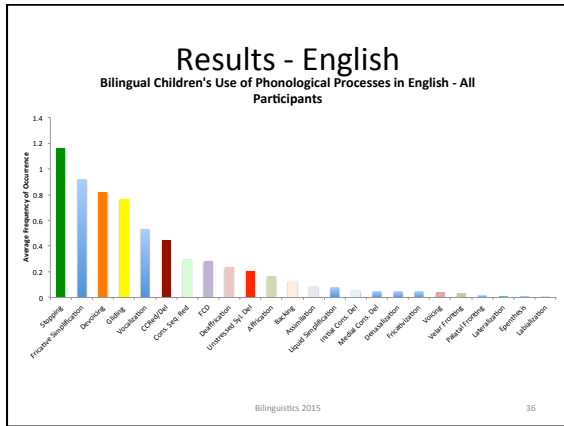
| | |
|--|---|
| <ul style="list-style-type: none">• Spanish<ul style="list-style-type: none">– 49 words– 109 phoneme & consonant cluster opportunities– Evaluates each phoneme in each position at least 2 times– Multisyllabic words | <ul style="list-style-type: none">• English<ul style="list-style-type: none">– 58 words– 150 opportunities to produce phonemes & consonant clusters– Evaluates each phoneme in each position at least 2 times– Multisyllabic words |
|--|---|

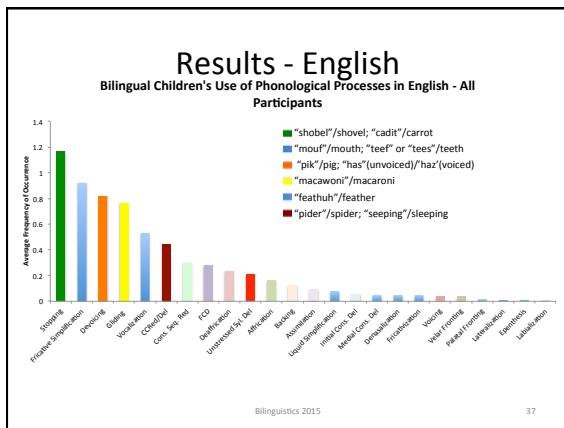
Bilinguistics 2015 32

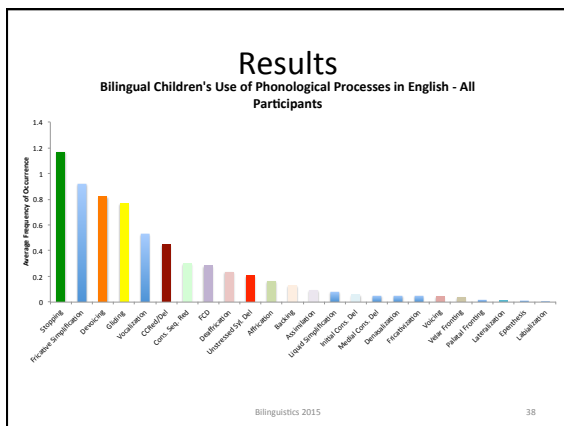


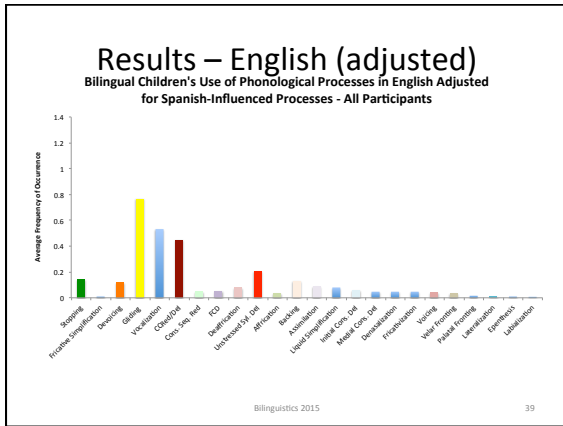


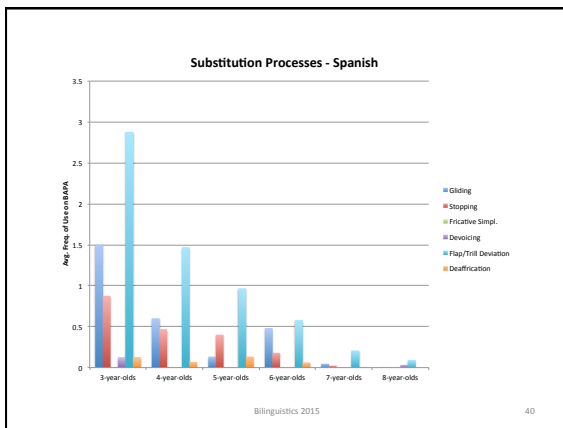


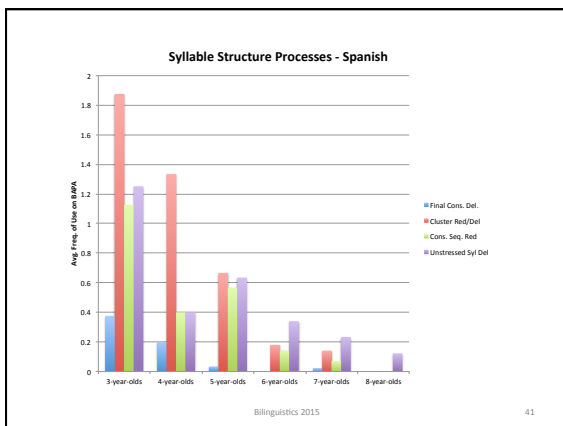


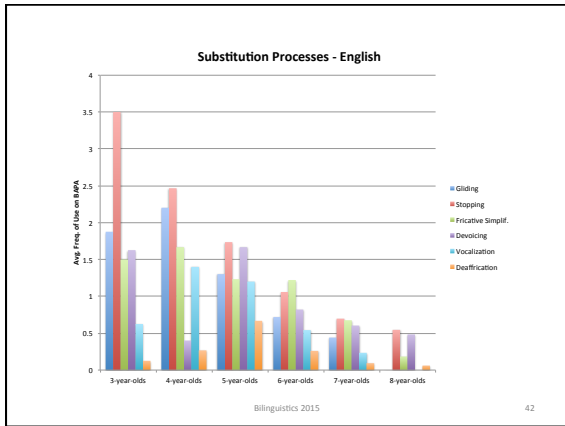


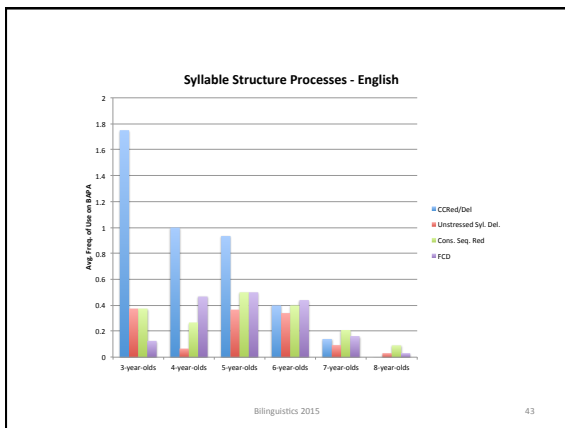


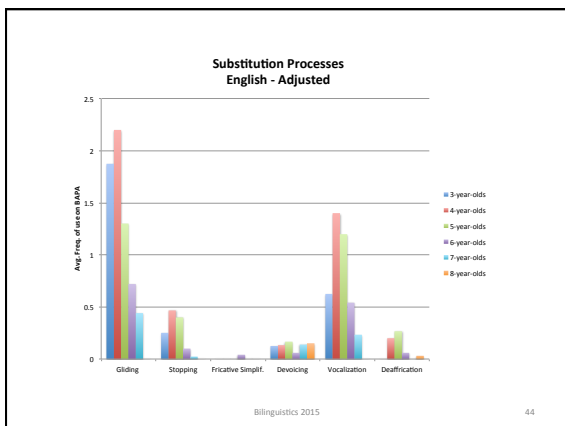


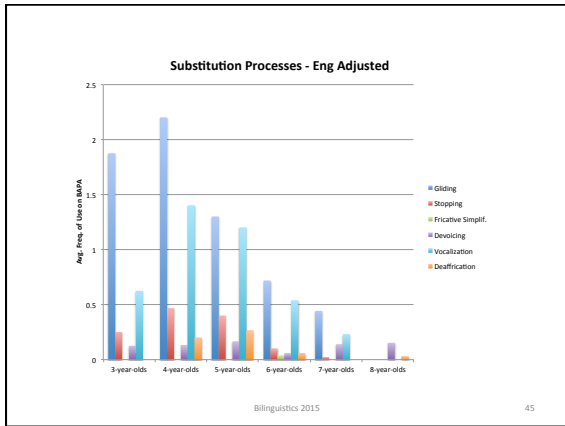


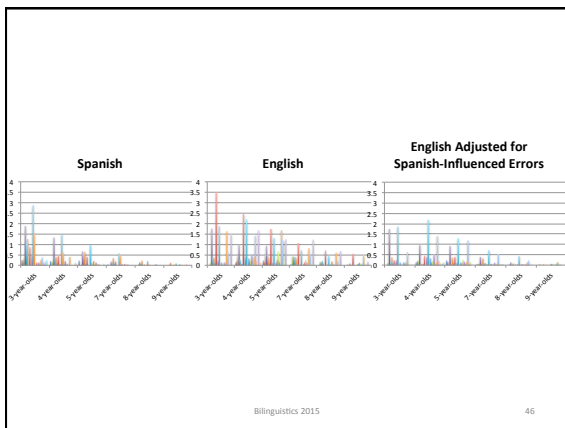


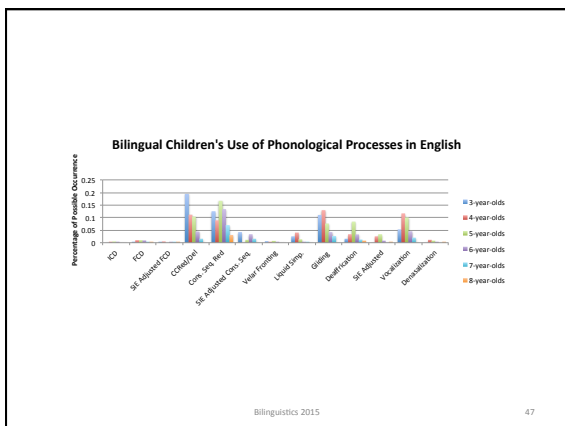


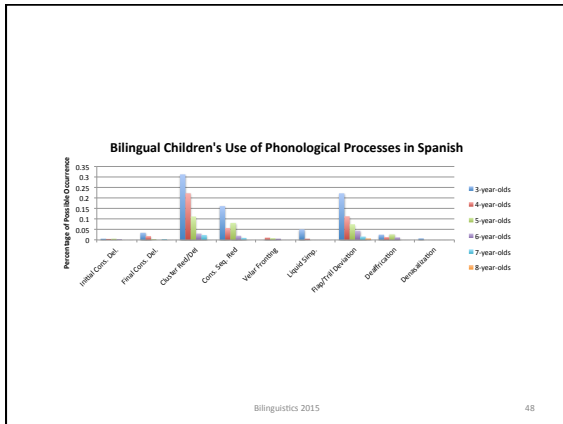












Bilingual children in this study:

- 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

Bilinguistics 2015 49

Clinical Implications

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

Bilinguistics 2015

Clinical Implications

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



Bilingualistics 2015

51

Additional Resources

[Link to Live Site](#)



Bilingualistics 2015

52
