A comparison of Hispanic infant populations on vocabulary size

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Background and Aims

- Literature suggests that bilingual infants may be erroneously portrayed as lagging in language development if measures of vocabulary size only measure vocabulary in one language for bilinguals when they are compared to monolinguals.[1-3]
- Additionally, previous studies have focused on language production, with few analyzing language comprehension in bilingual infants from diverse Hispanic backgrounds.[1]
- Using "gold standard" measures of bilingual development, language comprehension of a Miami sample composed of diverse bilingual infants was compared to archival data of a monolingual Spanish Mexican sample.
- **Aim:** Examine whether there is a difference in vocabulary size between bilingual infants vs. monolingual infants and assess the relationship between language exposure and vocabulary size of the bilingual sample.

Methods

- **Participants:** Twenty-two 16-month-old English-Spanish bilingual infants (Miami sample) were compared to monolingual 16-month-old Mexican infants (*N*=60; archival Mexican sample) on language comprehension. In our Miami sample, bilingual infants were those exposed to <10% Spanish and <10% English.
- **Language:** Language comprehension in the Miami sample was assessed using both the Spanish and English Communicative Development Inventories (CDI). Language comprehension in the monolingual Spanish Mexican sample was assessed using the Spanish CDI.
- The CDI uses parent report to quantify an infant's language comprehension vocabulary size.
- **Analyses:** 1) Independent samples t-tests were conducted to identify differences in language comprehension between the Miami and Mexican infant samples. 2) Correlations were conducted between a) Spanish vocabulary size and Spanish exposure b) English vocabulary size and English exposure and c) relative vocabulary size and dominant language exposure (relative vocabulary = dominant language vocabulary ÷ total vocabulary).

Results and Discussion

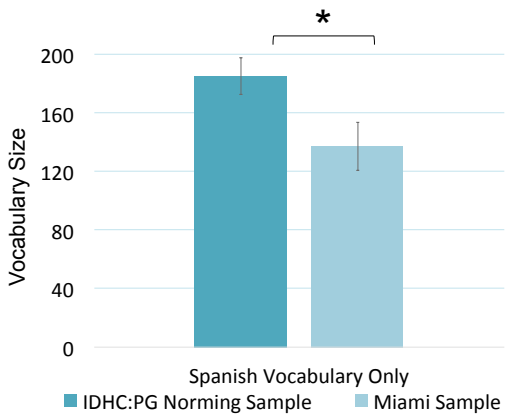

Fig. 1 Miami Sample vs Mexican sample Spanish vocab
t(80) = -2.059, *p* = .043, *d* = 0.54

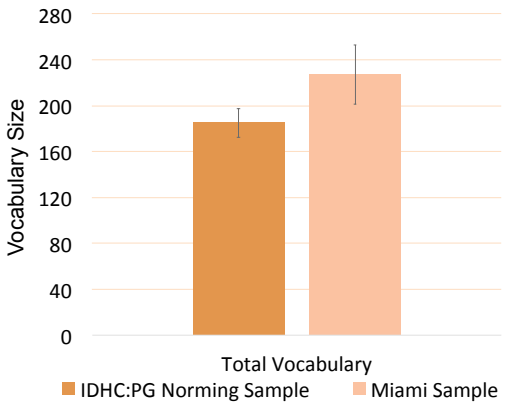

Fig.2 Miami Sample vs Mexican sample total vocab
t(75) = 1.528, *p* = .131, *d* = 0.40

Table 1
Correlations between comprehension and language exposure

	1	2	3	4
1. Spanish Exposure	-			
2. English Exposure	-1.00**	-		
3. Spanish Vocabulary	.296	-.300	-	
4. English Vocabulary	-.497*	.491*	.451	-

*$p < .05$, **$p < .001$

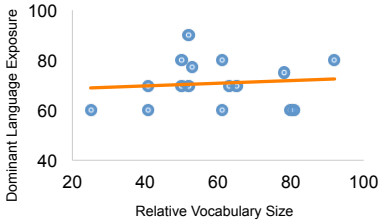

Fig. 3. Relative vocabulary and dominant language exposure
R = .604, *p* = .01

Take-Home Points:

- ✓ Replicated previous findings with bilinguals using comprehension measures in a diverse Hispanic sample.
- ✓ Findings support the use of total vocabulary scores.
- ✓ Partially support previous correlations between language exposure and vocabulary size.
- ✓ Use of relative vocabulary score may be best for bilingual populations.

References and Acknowledgements

[1] Hoff et al., (2011), DIO:10.1017/S0305000910000759
[2] Place & Hoff (2011), DOI: 10.1111/j.1467-8624.2011.01660.x
[3] DeAnda et al., (2016), DOI: 10.1044/2016_JSLHR-L-15-0234

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