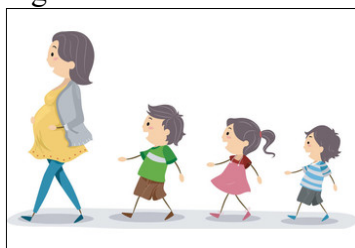


Shin, Naomi, Alejandro Cuza & Liliana Sánchez. Structured variation, language experience, and crosslinguistic influence shape child heritage speakers' Spanish direct objects. *Bilingualism: Language and Cognition*

SUPPLEMENTAL MATERIALS

Appendix A. Elicited production task examples

Figure S1. Animate direct object referent:



Spanish: *Los niños están con su tía en el parque. ¿Qué están haciendo a su tía? (seguir)*
 English: 'The kids are with their aunt in the park. What are they doing to their aunt?' (follow)

Figure S2. Inanimate direct object referent:



Spanish: *Pedro y sus amiguitos están en casa disfrutando de una noche de película. ¿Qué están haciendo Pedro y sus amiguito con la película? (ver)*
 English: Pedro and his friends are at home enjoying a movie night. What are Pedro and his friends doing with the movie? (watch)

Appendix B. Language Experience Questions used to calculate experience scores

Question Set 1: Spanish input

1. How often does the child's mother speak to them in Spanish?
2. How often does the child's father speak to them in Spanish?
3. How often does the child's grandparents speak to them in Spanish?
4. How often does the child's sibling speak to them in Spanish?
 - Repeat question #4 for each sibling
5. How often does the child's friends speak to them in Spanish?

Question Set 2: Spanish output

1. How often does your child speak Spanish to their mother?
2. How often does your child speak Spanish to their father?
3. How often does your child speak Spanish to their grandparents?
4. How often does your child speak Spanish to their Sibling, if any (fill in name)?
 - Repeat question #4 for each sibling
5. How often does your child speak Spanish to their friends?

Question Set 3: English input

Repeat questions 1-5 from Set 1, but replace Spanish with English.

Question Set 4: English output

Repeat questions 1-5 from Set 2, but replace Spanish with English.

Possible responses for all questions	scoring system
Never	1
Almost never	2
Sometimes	3
Frequently	4
Very Frequently	5

Appendix C. Figure S3 and Figure S4

Figure S3. Predicted probabilities of Clitic, Lexical NP, Omission responses based on multinomial model with four predictor variables: Spanish Vocabulary (A), Spanish Experience (B), English Vocabulary (C), English Experience (D). Child heritage speakers only. Each graph represents the effects of one continuous predictor variable at a time, showing effects for animate (red line) and inanimate (aqua line) reference, while holding the other predictor variables constant.

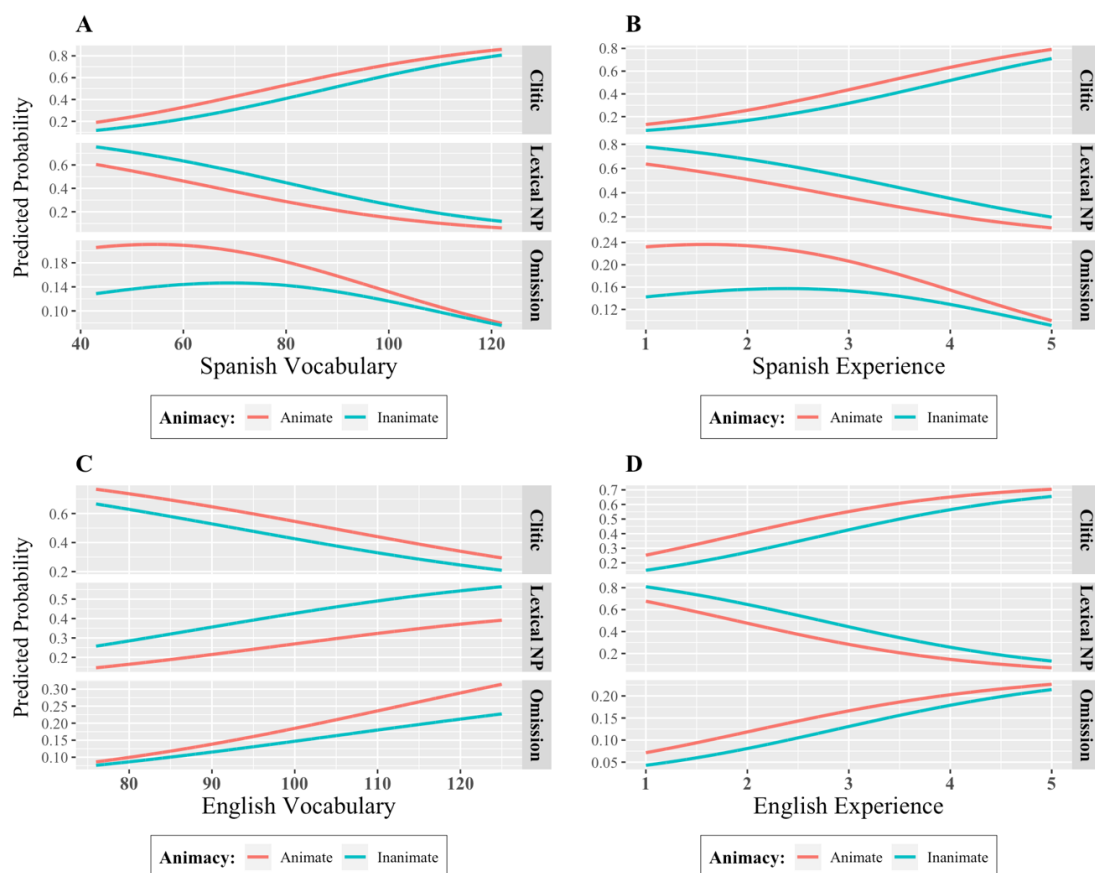


Figure S4. Child heritage speakers' direct object types in English and Spanish by Animacy