

## **Input overrides attrition: Verb agreement of developing L2 and heritage Spanish bilinguals in dual immersion**

Early bilinguals may gain native-like grammatical competence, but amount of input is a critical factor for both heritage language (HL) and child second language (cL2) learners (Meisel 2011, Cuza & Frank 2015). Earlier research on HL showing asymmetric grammatical competence (compared to majority language) has focused on adult bilinguals (Montrul 2016), not the developing child. We provide a snapshot of childhood morphology development in our investigation of two profiles of bilinguals (age 9-10) in a dual immersion (50%-50%) academic setting in USA, HL (n=21) and cL2 (n=33) Spanish. Comprehension and production data from present tense verb agreement (3-sg-pl) show no asymmetry in HL mastery of Spanish inflection, unlike significantly different cL2 bilinguals, who nevertheless show robust morphology.

In minimalist terms, Spanish and English differ in the value of functional features (FFs) in TP and their inflectional spell-out. Previous research on adult HL and L2 users has documented variable morphosyntax (Montrul 2011, 2016), but its causes have been debated: incomplete acquisition of HL (Montrul 2008), attrition (Cuza 2010, Polinsky 2011), insufficient activation (Putnam & Sánchez 2013), or literacy (Pascual, Cabo & Rothman 2012). Especially inflectional morphology is vulnerable, with production more affected than comprehension. Our RQs: Are HL and L2 children comparable or asymmetric in their morphology mastery of minority Spanish? Are comprehension and production comparable, or asymmetric in mastery?

Three tasks were given to the 54 children and 15 age-matched native Spanish controls in Spain: I) timed oral comprehension of 20 sg-pl 3p verbs ((1-2) visual prompts on slides); II) timed written sentence production of 10 of these verbs (infinitive+ visual prompts (3)); III) untimed meaning-focused writing task (email to penpal). HL children are comparable to native controls (Table 1) at 94% accuracy in comprehension and 93% production of number agreement; L2 Spanish show significantly lower scores (86%, 79% respectively). A similar pattern is observed when person agreement and stem, TAM and vowel errors are also considered (Table 2). HL perform similarly to controls (90% vs. 95% accuracy in form-focused Task II, and 95% vs. 99% accuracy in meaning-focused Task III). L2s perform at a lower level, particularly in the Task II (75%). The most common error is overregularization of stem and conjugation class vowels, a typical developmental error (Meisel 2011). All children perform better on the email Task III.

HL outperform L2 children and show verbal accuracy comparable to controls, while L2 learners show developing verbal inflection at over 75% accuracy and typical overregularization. For all, comprehension is more accurate than production, but not substantially. HL children show no attrition of early acquired verbal inflection, a fact we attribute to continuing input and literacy training. L2 Spanish show strong morphological abilities, indicating growth of Spanish inflectional and phonological features, both for comprehension and production. We conclude that the HL grammars are intact and that the L2 grammars have built up appropriate Spanish features and processing routines over the five years of dual immersion education.

## Examples and references

- (1) Arregla(n) los libros ‘Arrange-3-sg/pl the books’
- (2) Tiene(n) frío ‘Have-3-sg-pl [be] cold’
- (3) ¿Qué hace o hacen? ‘What does he/they do?’ cortar ‘to cut’

Table 1. Number agreement accuracy

|          | Comprehension | Production | Email |
|----------|---------------|------------|-------|
| Heritage | 94%           | 93%        | 95%   |
| L2       | 86%           | 79%        | 90%   |
| Controls | 86%           | 95%        | 98%   |

Table 2. Overall present tense accuracy

|          | Production | Email |
|----------|------------|-------|
| Heritage | 90%        | 95%   |
| L2       | 75%        | 94%   |
| Controls | 95%        | 99%   |

## References

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