




SLAM

SECOND LANGUAGE
ACQUISITION AND MULTILINGUALISM



- There is an aspectual asymmetry in Spanish-English code-switching (CS):
 - a. Los estudiantes **están writing** *their assignments*.
 - b. Los estudiantes **han written** *their assignments*.
the students are/have...
- Auxiliary-participle code-switches within perfect structures (b) are extremely infrequent,¹ less acceptable,² and incur longer reading times.^{1,3}
- Syntactic⁴⁻⁵ and usage-based explanations^{1,3} have limitations.
- Because CS involves a change at all linguistic levels, we adopt a novel approach which investigates the potential influence of morphology and phonology within an equivalence framework.

| Present Participles | | Past Participles | |
|---------------------|------------|-------------------|-------------------|
| SP | ENG | SP | ENG |
| regular | regular | reg/ irreg | reg/ irreg |
| [V + -ndo] | [V + -ing] | [V + -do] | [V + -ed/en] |
| [σσ(σ)] | [σσ(σ)] | [σσ(σ)] | [σ(σ)] |

Does **regularity** or **length** of the **past participle** modulate acceptability ratings and the magnitude of switch costs?

| Exp. 1 hypothesis | Exp. 2 hypothesis |
|--|--|
| <p>If verb regularity plays role:</p> <ul style="list-style-type: none"> • lower ratings for irregular verbs • slower RTs at irregular verbs | <p>If participle length plays role:</p> <ul style="list-style-type: none"> • lower ratings for monosyllabic verbs • slower RTs at monosyllabic verbs |

Experiment 1

| Switch Location | Condition | Mean Acceptability Value (approx.) |
|-----------------|---------------|------------------------------------|
| Auxiliar | had fixed | 4.8 |
| | had caught | 4.7 |
| Participle | habian fixed | 3.7 |
| | habian caught | 3.2 |

Significance for Experiment 1:
 Auxiliar (fixed vs caught): $t = 4.00; p < .001$
 Participle (fixed vs caught): $t = 1.86; p = .063$

Experiment 2

| Switch Location | Condition | Mean Acceptability Value (approx.) |
|-----------------|----------------|------------------------------------|
| Auxiliar | had planted | 5.0 |
| | had cooked | 4.7 |
| Participle | habian planted | 3.5 |
| | habian cooked | 3.5 |

Significance for Experiment 2:
 Auxiliar (planted vs cooked): $t = 4.06; p < .001$

Participle

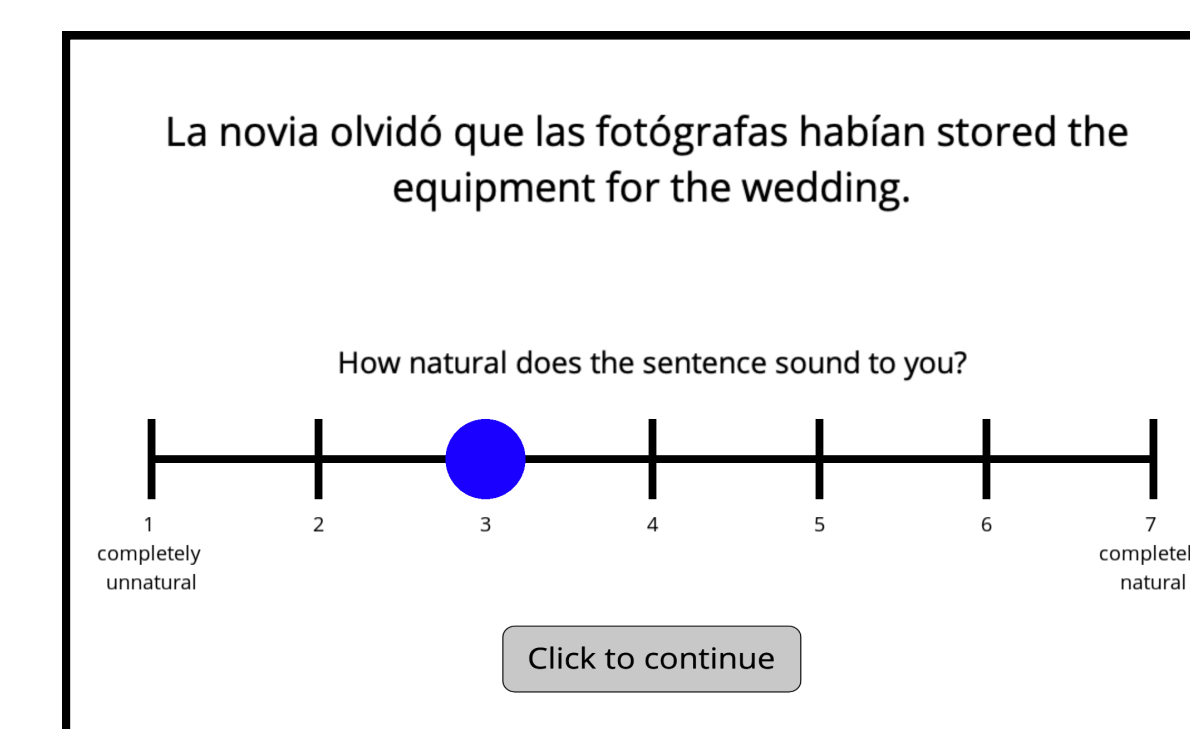
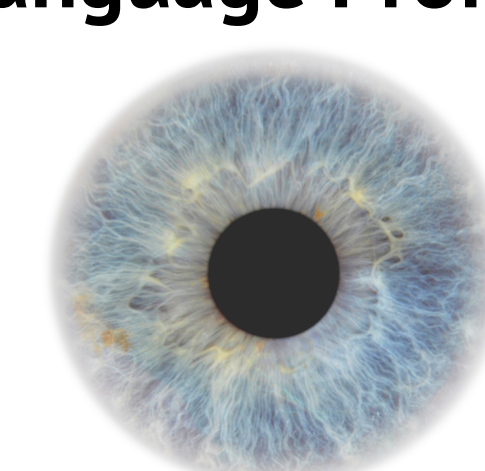
| | |
|---|---------------|
| ■ | regular |
| ■ | irregular |
| ■ | multisyllabic |
| ■ | monosyllabic |

Session 2: Tasks

- $n = 18$ college students living in NYC (F = 14, M = 4)
- Mean age = 19.6, (SD = 1.6)
- L1 SPA

Eye-tracking while reading + Bilingual Language Profile⁶

**AJT + Extended LexTALE⁷⁻⁸ (SPA, ENG)
+ Fill-in-the-blanks
+ Bilingual CS Profile⁹**



Experiment 1

Switch location:
 $t = 2.25$; $p = .038$

Experiment 2

Switch location:
 $t = 1.84$; $p = .084$

Experiment 1

Participle type:
 $t = -3.28$; $p = .003$

Experiment 2

Participle type:
 $t = -2.08$; $p = .046$

Mean total reading times per character

Auxiliar Region

Participle Region

Auxiliar

Participle

Switch Location

had fixed

had caught

had planted

had cooked

had planted

had cooked

had planted

had cooked

had planted

had cooked

- In AJT, the main effect of switch location in Exp. 1 and 2 aligns with previous findings² (i.e., had caught/fixed > habían caught/fixed).
- The marginal effect in ratings for regularity in Exp. 1 suggests a tendency to disfavor irregular participles as loci for switching but no difference was found for participle length.
- In eye-tracking, mean total RT per character at the participle region shows an effect of regularity in Exp. 1, suggesting that irreg. verbs induce longer RTs regardless of switch location.
- Similarly, monosyllabic participles induce longer RTs.
- Unlike previous studies,¹ we found no difference in mean total RTs at the participle region between a unilingual and a switched auxiliary phrase.
- These preliminary results hint that the asymmetry found in the literature is also affected by morphology (verb regularity) and phonology (syllable length) and that our exploration within an equivalence framework seems to be on the right track.

Acknowledgments
We thank Ernesto Guerra for assistance with data analysis, Bill Haddican for the use of lab space at Queens College, and participants for their time.

Contact informaton: **dcastillo1@gradcenter.cuny.edu**

[illegible]