

Theoretical Background

L2 learners seem to have less difficulty processing structures that are similar in L1 and L2 and structures that are unique in L2 than structures that exist in both languages but differ across those two (Tokowicz & MacWhinney, 2005).

Also, L2 learners seem to be less accurate than native speakers in processing agreement in complex sentences, (i.e., with a linear distance between the agreeing elements of several words). This seems to be due to working memory demands (Clahsen & Felser, 2006; Gillion-Dowens et al., 2010; Keating, 2009)

L1 syntax influence in L2 production of possessive structures

In a previous study (Santesteban, Foucart, Pickering & Branigan, 2010), we suggested that the agreement of possessive structures in L2 production may be affected by L1 syntax mainly in complex sentences (i.e., when the possessee linearly intervened between the possessor and the pronoun). In simple sentences (i.e., when the possessee attractor did not linearly intervene between the possessor and the pronoun), no difference was found between L2 learners whose L1 shared syntactic rules with their L2 and those who did not.

THEORETICAL QUESTION and HYPOTHESES:

Is L2 agreement processing in comprehension affected by differences between L1 and L2 agreement rules?

We investigated this question using possessive structures in English and we compared the eye-movement of three groups of readers; English native speakers, Greek-English late advanced learners (whose L1 share agreement rules with the L2), and Spanish-English learners (whose L1 and L2 rules conflict).

- If **L1 agreement rules affect L2 processing**, we expect different effects for Spanish- than for Greek-English learners (either no or delayed effects for Spanish speakers)
- If **L1 agreement rules DO NOT affect L2 processing**, we expect similar effects for Spanish- and Greek-English learners.

EXPERIMENTS 1 & 2: Methods and materials

EXPERIMENT 1: English possessive adjectives

Agree with the possessor (waitress):

English: The waitress chases **her**_{Fem} / ***his**_{Masc} son
 Greek: *I servitora kiniga ton gio tis*_{Fem} / **tu*_{Masc}

VS. Agree with the possessee (son)

Spanish: La **camarera** persigue a **su**_{Masc} / ***su**_{Fem} **hijo**

EXPERIMENT 2: English possessive pronouns

Agree with the possessor (waitress):

English: The waitress says that the son is **hers**_{Fem} / ***his**_{Masc}
 Greek: *I servitora lei oti o gios ine dikos tis*_{Fem} / **tu*_{Masc}

VS. Agree with the possessee (son)

Spanish: La **camarera** dice que el **hijo** es **suyo**_{Masc} / ***suya**_{Fem}

METHOD: Experiments 1 & 2

Participants: 18 English native speakers
 18 Spanish-English bilinguals (AoA: 7.8; proficiency: 5.5 (self-rate: 1-low, 7-high))
 18 Greek-English bilinguals (AoA: 8.9; proficiency: 5.9)

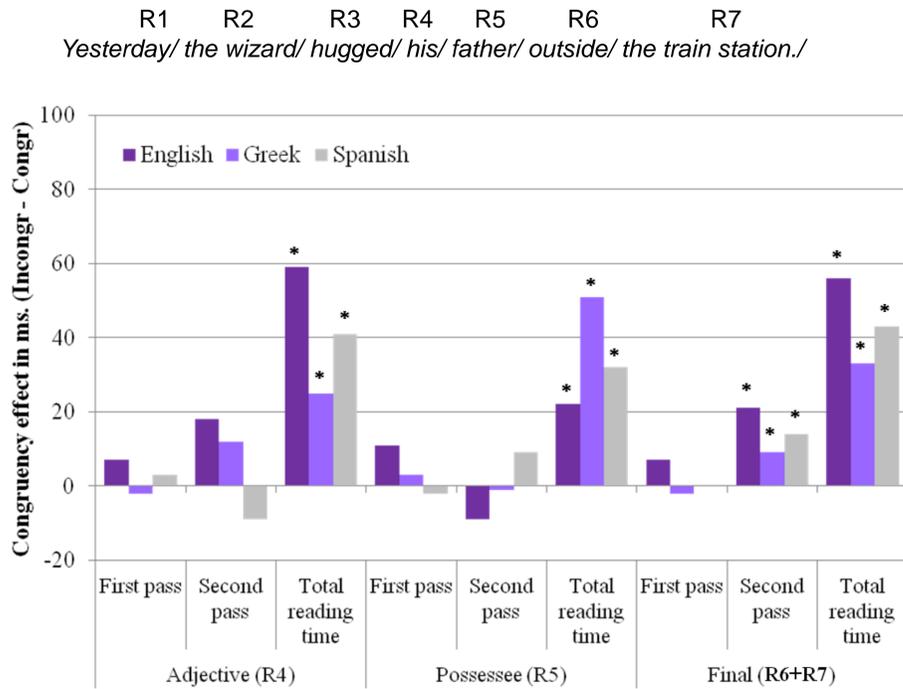
Materials: 96 experimental sentences (24 per condition) + 96 fillers
 Possessor characters: Masculine (e.g., waiter) vs. Feminine (e.g., waitress)
 Possessee characters: Masculine (e.g., son) vs. Feminine (e.g., daughter)

Conditions: 2 (congruent vs. incongruent gender between the possessor and the possessive adjective) x 2 (matching vs. mismatching gender of the possessor and possessee)

Procedure: Sentence reading – Answer comprehension questions

EXPERIMENTS 1 & 2: RESULTS

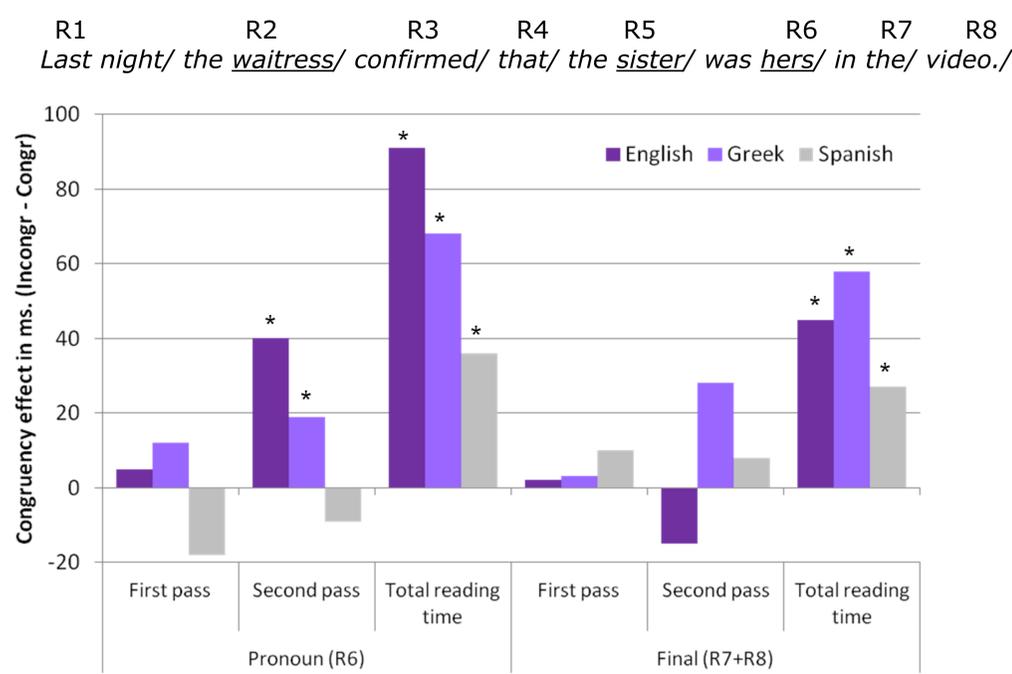
RESULTS: Experiment 1



- English native speakers showed longer reading times when the gender of the possessor did not match with the gender of the adjective.
- Both groups of L2 learners revealed a similar pattern as the native speakers.
- There was no difference between Spanish- and Greek-English bilinguals.

In sum: The results suggest that L2 agreement of possessive structure is not affected by L1 syntax, at least in simple sentences.

RESULTS: Experiment 2



- English native speakers showed longer reading times when the gender of the possessor did not agree with the gender of the pronoun.
- Greek-English bilinguals showed a similar pattern as English native speakers
- Spanish-English learners showed some sensitivity to gender disagreement but this effect was delayed compared to native speakers and Greek-English learners.

In sum: The results suggest that L1 syntax may affect L2 agreement of possessive structure in complex sentences.

CONCLUSIONS

- L2 learners seem to have more difficulties processing agreement when L1 and L2 syntactic rules differ, in line with previous studies (Tokowicz & MacWhinney, 2005), but only under some circumstances (i.e., complex sentences).
- The present data confirm the results obtained in production that L2 agreement processing is affected by L1 syntax only in complex sentences (Foucart et al., 2010).
- The working memory demand seems to be a factor in processing of complex sentences only, and only for L2 learners whose L1 and L2 agreement rules conflict.