

Syntactic and lexical gender congruency in native Spanish speakers acquiring L2 German

The non-selective nature of bilingual lexical access often results in cross-linguistic influence (CLI) in lexical processing; however, such effects are not as evident at the syntactic level. While research on L2 sentence production suggests a high degree of L1-L2 interactivity also at a structural level (e.g. Hartsuiker & Bernolet, 2017), work on L2 sentence comprehension often reports uniform processing patterns despite L1 differences. These discrepancies in CLI have led to interest in the interaction between lexical and syntactic processing in bilinguals, with available evidence showing that interactive lexical processing can impede target syntactic processing (e.g. Hopp & Lemmerth, 2018). Such findings have led to the *Lexical Bottleneck Hypothesis* (Hopp, 2018), according to which incomplete parsing partially arises from slowdowns and CLI in lexical processing in bilinguals.

This empirical study extends previous work on lexical-syntactic interactions in L2 sentence processing by examining the detection of ungrammaticality and type of L1-L2 grammatical gender mapping in Spanish-German Interlanguage. Adult L1 Spanish speakers (n=61) with intermediate-advanced L2 German proficiency and L1 German speakers (n=36) completed a 80-item German self-paced reading task focusing on the interaction between noun gender congruency and word order with attributive adjectives. Target nouns were either congruent (same gender in the two languages), incongruent (masculine-feminine mismatches) or L2 neuter (Spanish masculine/feminine). These nouns were paired with attributive adjectives appearing either prenominally (grammatical in German, ungrammatical in Spanish; see (1a)) or postnominally (ungrammatical in German, grammatical in Spanish; see (1b)).

A three-way interaction of Group*Grammaticality*Congruency in reading times in Region 4 (see Figure 1) showed that the detection of syntactic ungrammaticality among L2 speakers was influenced by L1-L2 lexical gender congruency. L2 adults slowed down in reading for ungrammatical word orders only for lexically gender-congruent NPs in Region 4. These findings reveal earlier and stronger sensitivity to ungrammatical syntax when the gender of the noun is the same in Spanish and German (either feminine or masculine). For these gender-incongruent nouns, interactions with proficiency suggest that only high-proficiency L2 adults detected ungrammaticality in the L2.

This study shows cross-linguistic lexical gender effects in the detection of syntactic ungrammaticality, even when the latter is independent of gender information. In this regard, it highlights the important role of the specific type of cross-linguistic lexical overlap in L2 sentence processing, illustrating that contrasts in syntactic L1-L2 features, such as those determining word order differences, go beyond a mere binary same/different distinction and are sensitive to cross-linguistic properties in the lexicon. These findings highlight that there is a need for an integrated and more nuanced study of the bilingual language system, encompassing both the bilingual mental lexicon and the L2 parser.

(434 words)

References

- Hartsuiker, R. J., & Bernolet, S. (2017). The development of shared syntax in second language learning. *Bilingualism: Language and Cognition*, 20(2), 219-234.
- Hopp, H. (2018). The bilingual mental lexicon in L2 sentence processing. *Second Language*, 17, 5-27.
- Hopp, H., & Lemmerth, N. (2018). Lexical and syntactic congruency in L2 predictive gender processing. *Studies in Second Language Acquisition*, 40(1), 171-199.

Examples

(1a) Attributive adjectives in prenominal position

Ich bin dankbar, denn eine neue Schule ist in dem Altbau am Marktplatz.

I am thankful, because a new school is in the old-building at-the market-square

‘I am grateful because there is a new school in the old building on the market square.’

(1b) Attributive adjectives in postnominal position

*Ich bin dankbar, denn eine Schule neue ist in dem Altbau am Marktplatz.

I am thankful, because a school new is in the old-building at-the market-square

‘I am grateful because there is a school new in the old building on the market square.’

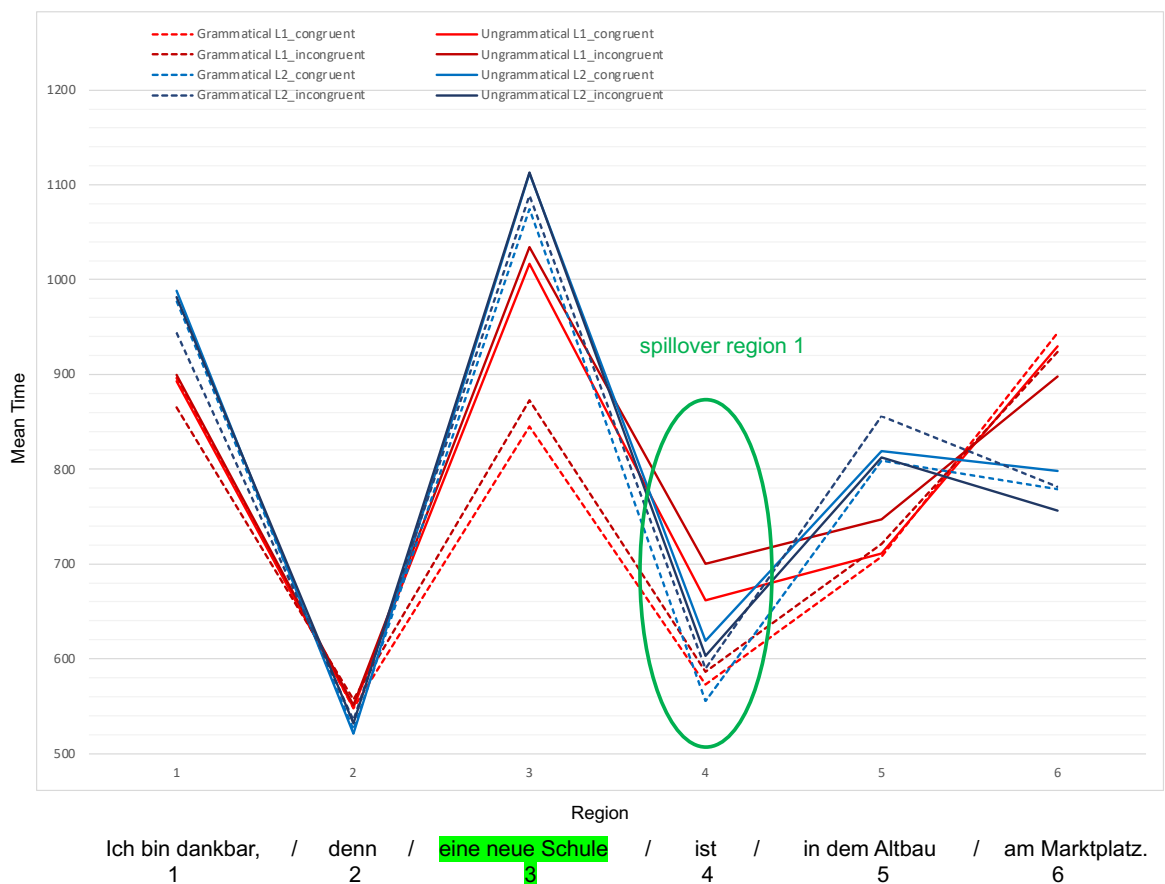


Figure 1: Reading times by segment for the congruent and incongruent conditions by group and grammaticality