

## Crosslinguistic Priming in Adolescent Heritage Language Speakers

Heritage language (HL) speakers often exhibit differential acquisition of their heritage language (Kupisch & Rothman, 2018), potentially leading to innovative language use and interpretations of grammatical structures. Heritage-speaker research contributes to understanding language change in contact situations involving two languages (Flores & Rinke, 2020; Kupisch & Polinsky, 2022; Lohndal et al., 2019). While existing research focuses mainly on HL patterns, comparing them with the societal language (SL) can reveal the directionality of the rise of innovations and thus provide further evidence for contact-induced language change. Our study aims to explore this issue by investigating the processing mechanisms of HL speakers through online and offline measures using the priming paradigm. This study seeks to test whether innovative interpretations of structures can be primed from the SL to the HL and *vice versa*, with potential observations indicating that online innovations precede offline changes (Arechabaleta & Montrul, 2021). Investigating bidirectional priming and employing online vs. offline measures may yield valuable insights into incipient language change by showing the direction in which innovations emerge and providing evidence for online, but not offline, innovative interpretations.

The goal of this study is to delineate the scope and directionality of crosslinguistic priming in HL speakers. To this end, we focus on the comprehension of overt subject pronouns (OSPs), a linguistic phenomenon requiring an interface between syntax and discourse, where HL speakers are known to show innovations and diverge from monolingual norms (Schimke et al., 2018). In two visual world eye-tracking priming experiments, we test Italian HL speakers with German as their dominant SL to investigate whether crosslinguistic priming effects generalise to the online and offline interpretations of OSPs and whether these effects hold in both directions, i.e., German-to-Italian (Experiment 1) and Italian-to-German (Experiment 2). This language pairing allows for investigating possible effects of crosslinguistic differences on pronoun interpretations: In German, a non-null subject language, comprehenders tend to refer OSPs to the subject of the main clause (e.g., *John<sub>i</sub> greets Peter when he<sub>i</sub> crosses the street*), while OSPs are often interpreted as referring to object of the main clause in Italian, a null subject language (e.g., *John greets Peter<sub>j</sub> when he<sub>j</sub> crosses the street*).

In Experiment 1, participants read German prime sentences with unambiguous pronouns, then hear Italian target sentences with ambiguous pronouns while viewing visual scenes. Target sentences are followed by comprehension questions to assess offline interpretations of ambiguous pronouns (see Figure 1). Experiment 2 reverses the prime-target language direction.

We predict stronger priming effects in Experiment 1, affecting online interpretations of Italian OSPs. Given the lasting effects of early exposure to a dominant language (Scontras et al., 2015), we also predict that crosslinguistic priming will affect offline interpretations in Experiment 1. In Experiment 2, we expect attenuated priming effects on German OSP interpretations.

The results of this study will provide a better understanding of the dynamics of contact-induced language change by (a) investigating how HL speakers act as agents of change, (b) probing the extent to which syntax-discourse interface structures are susceptible to change, (c) uncovering potential innovative interpretations through both online and offline measures, and (d) unravelling the role of language dominance in crosslinguistic priming.

**Figure 1.** An example of prime-target pairs in Experiment 1

**(a) Prime sentence: ambiguous OSPs**  
 Die Wissenschaftlerin begrüßt die Tierärztin, als **sie** die Straße überquert.  
 'The female scientist greets the female vet, as she crosses the street.'

**(b) Comprehension verification: forcing either object or subject interpretation of ambiguous OSPs in prime**

**(c) Target sentence: ambiguous OSPs & interpretations**

"La fotografa tocca la sposa, mentre **lei** infila la giacca."  
 'The photographer touches the bride, as she puts on the jacket.'

The figure is enclosed in a green border and contains three sections. Section (a) shows a prime sentence in German and English with a red icon of a person. Section (b) shows two illustrations of a scientist and a vet on a road, with a red icon of a person and a red 'X' icon. Section (c) shows two illustrations of a photographer and a bride, with a red icon of a person, a red 'X' icon, and a red icon of an eye.

## References

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