

## **Using experimental methods to create a typology of contact-induced change in constituent order**

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This paper proposes that systematically investigating the outcomes of language contact via psycholinguistic experiments can help explain cross-linguistic tendencies in contact-induced change and complement findings from corpus studies by expanding the languages and constructions under investigation. I focus on constituent order flexibility, which has been proposed as a facilitator of change (Aikhenvald 2003) and shown to be affected by contact (Friedman 2003, Heine 2008). I present data from a series of experiments investigating contact effects in four languages with flexible constituent order, each of which is under a different type of contact with English, and I propose an approach to use these findings to trace back historical contact-induced changes in low-data contexts.

The first goal of this approach is to create a typology of contact effects in flexible constituent order, systematically comparing languages which differ in terms of linguistic features and context of contact. This is done using careful cross-linguistic replications of the same experimental paradigm across contexts and languages. I motivate the use of acceptability judgment experiments, as they are easily conducted in non-lab contexts, and differences in ratings capture differences in conventionality and in processing effort. As a preliminary demonstration, four experiments are presented here: (1) Malayalam under pressure from English due to globalization, (2) Korean as used by the diaspora in the United States, (3) Spanish as learned by English-speakers in the United States, and (4) Hindi-Urdu as used in the United States and in India.

Across experiments, participants heard each of the six orderings of animate subjects, inanimate objects, and transitive verbs (items were counter-balanced across six lists, and pseudorandomly distributed amongst fillers with a range of acceptability). Participants heard each item once, and were asked to rate acceptability on a 1-7 Likert scale. Participants then completed a questionnaire about language learning and use.

Constituent order flexibility was operationalized via the relative preference for canonical order (Levshina, Namboodiripad, et al. 2021). A flexibility score was calculated for each individual: The average acceptability of the canonical orders minus the average acceptability of all non-canonical orders. In this measure, a higher number means a greater relative preference for the canonical order in a language, and decreased flexibility. The results for Malayalam and Korean show that increased contact with English corresponds to decreased flexibility, that is, more experience with English corresponds to a greater relative preference SOV. For Spanish and Hindi-

Urdu, increased experience with English corresponds to fewer distinctions between non-canonical orders. That is, participants who were more English dominant found non-SVO (for Spanish) and non-SOV (for Hindi-Urdu) orders to be more interchangeable (cf. Fortescue 1993).

What do we do with these findings? Given appropriate typological and sociolinguistic coverage, I posit that tendencies should emerge which can allow us to hypothesize likely directions of contact-induced change in constituent order. For example, the finding for Korean as used in the US should not only lead us to predict that a structurally similar language, say, Japanese, in the US would show similar effects of contact with English, but that similar pairings of contact context and linguistic structure historically might have led to similar contact-induced change as well. In sum, experimental approaches complement corpus approaches by addressing limitations due to corpus availability as well as providing evidence for causal links between particular types of contact and the linguistic outcomes of such contact.

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