Shared representation for *present perfect* and *passé composé* in French-English bilinguals

Studies have shown that bilinguals have a shared mental representation of constructions equivalent across their languages (Hartsuiker et al., 2004; Bernolet et al., 2013). However, the degree of similarity needed for a shared representation has yet to be established. We addressed this research question by investigating *present perfect* in English (PP_E) and *passé composé* in French (PC_F), which are formally equivalent, yet differ in application, since PC_F has replaced *passé simple* in French (PS_F).

Our first study used the cross-linguistic syntactic priming paradigm, in which French-English bilinguals (N=40) were presented with a French prime sentence either in the PC_F or the PS_F (English native controls performed the task all in English with English primes). Having read it for comprehension, participants created their own sentence in English using two keywords. The hypothesis predicted more PP_E sentences after a PC_F than a PS_F prime. Unexpectedly, not only the French, but also the English group produced mainly PS_E sentences, irrespective of the prime.

To gain more sensitivity, we conducted an eye-tracking study with French-English bilinguals (N=43) and native English speakers (N=46) reading for comprehension English sentences in PP_E, which were grammatically correct (e.g., starting with 'recently') or incorrect (e.g., starting with 'last year'). Importantly, all sentences, if translated into French, would be grammatical. We found an interaction between grammaticality and group on total reading time using mixed-effects linear regression modelling (p=.005). While native English speakers took significantly longer to read the interest area (auxiliary + past participle) in the ungrammatical than the grammatical condition (p<.001), French-English bilinguals did not (p=.86).

Together, these studies show that syntactic priming is not sensitive enough to capture the tense processing differences between native and non-native speakers of English. Conversely, eye-tracking results confirmed that French-English bilinguals fail to process PP_E in a native fashion. This suggests a shared representation for PP_E and PC_F, leading French-English bilinguals to process PP_E sentences according to French rules.

References:

Hartsuiker, R. J., Pickering, M. J., & Veltkamp, E. (2004). Is syntax separate or shared between languages? Cross-linguistic syntactic priming in Spanish-English bilinguals. *Psychological Science, 15*(6), 409–414.

Bernolet, S., Hartsuiker, R. J., & Pickering, M. J. (2013). From language-specific to shared syntactic representations: The influence of second language proficiency on syntactic sharing in bilinguals. *Cognition, 127*, 287–306.