Temporary ambiguity, cognitive control and non-native processing: A conflict adaptation study

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The informational conflict that occurs during misinterpretation of syntactic structures triggers cognitive control (CC), shown to be a major player in disambiguation (January, Trueswell & Thompson-Schill, 2009). CC has also been colocalized with prefrontal activity during processing of a non-native, non-highly proficient language, activity not observed during highly proficient processing (Abutalebi, 2008). However, further research is needed to better understand the relationships between CC, non-native processing and syntactic disambiguation.

To that end, the current ongoing study aims to investigate the role of CC in L2 and L3 processing of syntactic ambiguities. The participants of this study are Catalan-Spanish early bilinguals who learned English as an L3 during adolescence. The study will use a conflict adaptation paradigm, imported from recent first language research (c.f. Hsu & Novick, 2016). This paradigm compares participants’ processing during engaged vs. nonengaged states of CC, interleaving linguistic and non-linguistic stimuli, employing the Stroop effect (i.e. sustained CC engagement following conflict) for research purposes. Critical comparisons are self-paced reading times of reduced relative clauses when preceded by congruent vs. non-congruent flanker trials, in both the L2 and L3. The poster will address methodological design concerns and potential implications of the paradigm for L2 psycholinguistic research.

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