

Cross-linguistic influence in bilingual French-Dutch children: Evidence from between-language structural priming

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Background Many bilingual children regularly produce utterances in one language influenced by the other. For example, in both elicited and spontaneous speech, Romance-Germanic bilingual children have been found to produce ungrammatical N(oun)-Adj(ective) structures in their Germanic language (e.g., “apple_N green_{ADJ}”) influenced by their Romance language (e.g., “pomme_N verte_{ADJ}”) (Nicoladis, 2006; van der Linden & Blok-Boas, 2005). Such cross-linguistic influence (CLI) has also been primed (Hsin et al., 2013). Indeed, between-language structural priming has recently been proposed as the mechanism underpinning CLI in bilingual children (e.g., Hervé et al., 2016; Serratrice, 2016). On this account, bilingual children share syntactic representations across languages, similarly to bilingual adults (Hartsuiker et al., 2004). For adults, shared syntax – and hence between-language priming – has been shown to develop as a function of proficiency (Hartsuiker & Bernolet, 2016). Furthermore, such sharing has been claimed to include structures which are grammatical in one language but ungrammatical in the other (Hsin et al., 2013; Hwang et al., 2018). To test these claims, this paper investigates (i) to what extent it is possible to prime CLI resulting in ungrammatical structures, and (ii) whether priming of ungrammatical structures is related to proficiency.

Participants & Method Following Messenger et al. (2011), a “snap” card game was used to prime Adj-N/N-Adj structures in 24 French-Dutch bilingual children ($M_{age} = 6.6$ years). Dutch adjectives are prenominal (Adj-N); French adjectives are typically postnominal (N-Adj), but a number of high frequency adjectives occur prenominally. Children were primed from French to Dutch and vice versa. Both adjective-types were included. Bilingual proficiency was measured by averaging vocabulary scores across both languages.

Results There was a priming effect from French to Dutch: ungrammatical N-Adj orders were more frequent in Dutch after a postnominal prime in French. There was however no priming effect from Dutch to French. In both directions, there was a main effect of adjective-type: postnominal orders were more frequent in both languages for those adjectives which appear postnominally in French. There was no interaction. French-to-Dutch priming was modulated by bilingual proficiency with stronger priming of the ungrammatical N-Adj order associated with *lower* proficiency.

Discussion Our results replicate previous findings for French-to-Dutch (Hsin et al., 2013) but not from Dutch-to-French (cf. Nicoladis, 2006). Possible explanations include: the rate of ungrammatical orders in the baseline, language dominance, and the fact that Adj-N is a possible order in French but completely ungrammatical in Dutch. Contrary to bilingual adults (Hartsuiker & Bernolet, 2017), higher proficiency was not associated with greater priming. This suggests *ungrammatical* structures may not be shared. It also leads us to consider how proficiency can best be operationalized in bilingual children and adults in relation to priming.

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