

Having, accessing, and uptaking syntactic representation: Priming as a learning index in various child populations

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Abstract

In child language development research, the syntactic priming paradigm has been used to assess abstract syntactic representations and the automaticity in accessing particular structures. In heritage language (HL) bilingualism, child heritage speakers (CHSs) are often shown to have different surface performance patterns in the HL relative to monolingual children. Priming constitutes a good candidate to inform whether such differences reflect representational and/or accessing differences.

Recent studies with neurotypical/typically-developing monolingual children (L1-TD) show that priming may increase as a function of more trials and/or maintain for a prolonged period of time, suggesting (cumulative) priming taps into implicit learning/uptaking of grammatical representations. Meanwhile, this cumulative effect is absent in children with Developmental Language Disorder (DLD), including L1-DLD. This particular application of priming, however, has been restricted to primarily monolingual and clinical populations with mixed results. As there is no reason to assume that neurotypical/typically-developing CHSs (CHS-TD) have reduced uptake abilities, in the present study, we adopt priming to assess implicit learning in CHS-TD, and to scrutinise its validity across diverse learner groups.

We tested Mandarin passives in 22 L1-DLD, 32 Mandarin-English CHS-TDs and 35 L1-TD (5-to-9-y.d.; age-, SES-, and non-verbal IQ-matched). Results show that, while immediate (after each trial) priming is observed in all groups, L1-DLD and CHS-TD have similar priming magnitude, yet smaller than L1-TD. For all groups, priming increases with age. However, for CHS-TD, age is no longer significant when current HL input quantity is considered. This suggests that while having the syntactic representation of Mandarin passives, L1-DLD and CHS-TD are less automatic in accessing it relative to L1-TD; their ability improves with age, and for CHS-TD with more HL input. Cumulative priming is observed in the two neurotypical groups (L1-TD, CHS-TD) to a similar degree but not in L1-DLD, supporting the validity of the task as a clinical marker.