

Error attraction and syntactic priming in subject-verb agreement production

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A canonical finding in agreement production research is local noun interference; subjects produce more agreement violations (e.g. “the key to the cabinets *are...”) when a local noun of mismatched number (cabinets) appears between the head noun (key) and its verb than when the local noun and head noun share the same number (e.g., “the key to the cabinet,” Bock & Miller, 1991). Previous work has suggested that this error attraction is less frequent with local nouns embedded in relative clauses (NP[RC] structures, e.g. “the key that opened the cabinets”) than in prepositional phrases (NP[PP]) (Bock & Cutting, 1992), but there has been relatively little work on agreement in NP[RC] structures in English (see Hartsuiker et al., 2001, for Dutch NP[RC] agreement results).

Effects of local nouns on agreement are often interpreted as purely structural, but we investigate whether one putative non-structural effect extends to the NP[RC] construction. Haskell, Thornton, and MacDonald (2010) found that participants exposed to collective NP[PP]s with plural agreement (e.g., “a trio of violinists are...”) produced more plural agreement than those who were primed with singular agreement with collective NP[PP]s. Haskell et al. (2010) investigated priming only from NP[PP]s to other PP constructions, so it remains unclear whether priming effects could extend to agreement production in NP[RC]s. We address this question.

Participants (n=40) read either the singular-prime or the plural-prime version of the Haskell et al. (2010) priming story, which contained a number of collective NP[PP] expressions paired with either singular or plural verbs. Immediately after reading the story, participants completed sentence fragments, including filler items, additional collective NP[PP] primes, and NP[RC] items. These contained a collective head noun modified by a subject relative clause ending with either a singular or plural noun, as in “the class that escaped the chaperone(s)”. The singular/plural local noun was always the direct object of the RC verb, which was always past tense and unmarked for number. The singular and plural variants were matched for plausibility, as established by prior norming with different participants. Priming was manipulated between subjects, local noun plurality within.

Participants' completions were coded as singular, plural, and other (typically containing a non-explicitly number-marked verb, e.g. “ran away”). Results showed significant effects of the local noun plurality (plural completions 15.8% with singular local noun vs. 35.0% with plural local noun). This strong local noun effect is notable given that local nouns took the role of RC direct object (intrinsically not an agreement controller), extending findings from Dutch (Hartsuiker et al., 2001). However, there was no significant effect of priming; plural completions did not differ significantly across priming conditions (21.5% with singular agreement primes vs. 29.2% with plural agreement primes, averaged over local noun type). This result suggests that the priming effects for NP[PP] conditions observed in Haskell et al. (2010) do not extend to relative clauses. We will discuss these results in terms of other syntactic priming effects and other agreement results in production.

References

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