Predictability effects on the acceptability and processing of Gapping in German

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Keywords: <ellipsis, gapping, predictability, information theory, UID>

Previous work has extensively studied the licensing of Gapping (Ross 1967). However, little is known of why speakers choose to gap, provided Gapping is licensed. We suggest that the usage of Gapping is guided by a preference for distributing information (Shannon 1948) uniformly across the utterance (Levy and Jaeger 2007). We hypothesize that speakers gap to omit predictable expressions and avoid information troughs. We focus on the omission of the inflected verb (*strickt* 'knits') in the second conjunct (C2) of German coordinations like (1) and modulate the predictability of the C2 verb through the number of objects in context: Mentioning two objects (e.g., *watercolors and origami paper*) rather than one (e.g., *watercolors*) decreases the predictability of the C2 verb (as evidenced by a production study) since readers expect that the second object is the instrument of another action.

(1) *Die Anna und der Max haben im Bastelladen* (*Wolle* | *Wolle und Origamipapier*)
the.NOM Anna and the.NOM Max have in.the craft.store wool wool and origami.paper
gekauft. Die Anna strickt einen Pulli und der Max ⟨***strickt***⟩ *einen Schal.*
bought. the.NOM Anna knits a.ACC sweater and the.NOM Max knits a.ACC scarf

We conducted an acceptability (N = 49) and a self-paced reading study (N = 96) (VERB PREDICTABILITY (high/low) × FORM (nonelliptical/Gapping)). We expected that i) Gapping is rated as more acceptable compared to nonelliptical coordinations when the C2 verb is more predictable (FORM × VERB PREDICTABILITY interaction); and that ii) Gapping is processed easier with more predictable C2 verbs, i.e. faster RTs immediately after the ellipsis site (MAIN VERB PREDICTABILITY effect for Gapping).
Our rating data (CLMMs) showed no FORM × VERB PREDICTABILITY interaction (z = -0.30, p > 0.05) (Fig. 1). However, there was a main VERB PREDICTABILITY effect (z = 9.01, p < 0.001): higher ratings for more predictable C2 verbs.[1] The reading data (LMMs, nested effects) revealed no effect of VERB PREDICTABILITY for Gapping (t = -0.53, p > 0.05) (Fig. 2). Instead, we observed a significant VERB PREDICTABILITY effect for nonelliptical coordinations (t = 2.04, p < 0.05), where the C2 object noun was read slower the more predictable the C2 verb was. This might indicate that Gapping is the expected form for coordinations like (1) (Kaan, Wijnen, and Swaab 2004; Kim et al. 2020), so that with predictable C2 verbs, the nonelliptical form becomes highly unexpected and hard to process. Concluding, we found no evidence that Gapping is used to avoid predictable material. However, our SPR data suggest that Gapping might not be an alternative but rather the default form for coordinations that license it.

[1] For all analyses, VERB PREDICTABILITY was coded as a continuous variable using cloze probability values obtained in a production study.

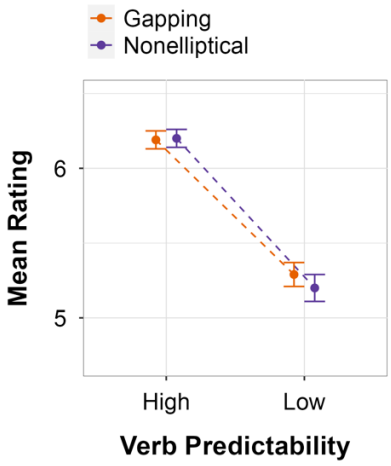

Fig. 1. Mean ratings and SEs by condition.

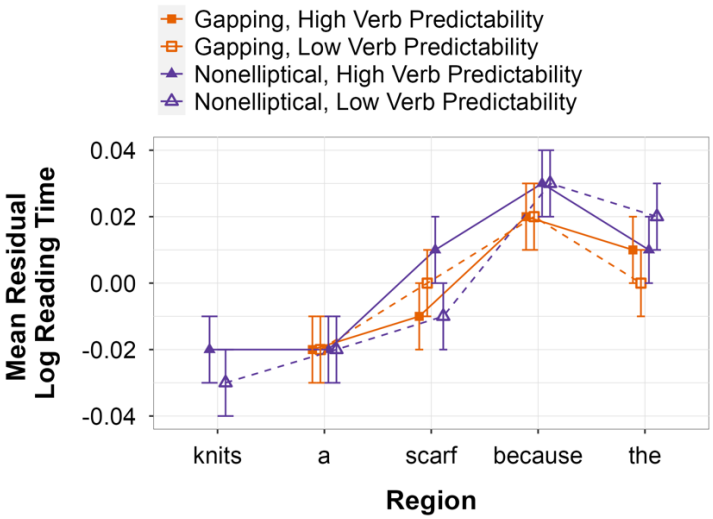

Fig. 2. Mean residual log reading times and SEs by condition.

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