
Choose your fillers wisely: Investigating item set effects

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Experimental investigations on anchoring effects found that item sets (here, anchoring sets) can, to some degree, influence judgments: they can shift judgments on critical items, but they reportedly do not influence the effects' direction or their significance (Nagata 1992; Cowart 1994). Their analysis of variance yielded no significant interaction between the anchoring set and the critical effects, but an ordinal analysis might yield different results.

Therefore, I ran a pilot acceptability judgment task with different filler set combinations to assess the results' replicability – comparing both ANOVA and cumulative link mixed model (CLMM) results in combination with estimated marginal means (EMM). Within participants, I tested items on German word order alternations (S-IO-DO vs. IO-S-DO vs. DO-S-IO) replicated from Weskott & Fanselow (2011). Additionally, two combinations of filler sets were tested between participants: one combination (full scale) consisted of a set of highly acceptable items and one of unacceptable items. The other combination (narrow scale) consisted of two filler sets both previously judged to be somewhat acceptable. These filler sets are comparable to the anchoring set from Cowart (1994).

This pilot includes judgments of only twelve participants. Nonetheless, the results fit in with previous research: the main pattern (S-IO-DO > IO-S-DO > DO-S-IO) remained the same in both filler set conditions. The full-scale condition led to “stretched” judgments in the critical set, while judgments were “squished” in the narrow-scale condition. Analysis of variance could replicate previous findings (significant main effect of word order, but no interaction with the filler set), whereas analysis with CLMMs detected a significant interaction between filler sets and word order. Analysing both subexperiments by themselves with CLMMs and EMMs revealed that while all differences of word order were significant in the narrow-scale condition, the difference between both scrambled word orders was not significant in the full-scale condition. This pilot indicates that the filler set is an important source of variance, and that it can significantly influence judgments on investigated factors. Depending on the type of analysis, effects can even be (partially) annihilated by a filler set.

References: • Cowart, W. (1994). Anchoring and grammar effects in judgments of sentence acceptability. *Perceptual and Motor Skills* 79(3), 1171–1182. • Nagata, H. (1992). Anchoring effects in judging grammaticality of sentences. *Perceptual and Motor Skills* 75(1), 159–164. • Weskott, T. & G. Fanselow (2011). On the Informativity of Different Measures of Linguistic Acceptability. *Language* 87, 249–273.