

Can syntax influence morphological complexity? Evidence from the gender congruency effect

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When speakers have the option of using either a morphologically complex form or a synonymous simpler base form, which factors influence their choice? In this project we ask whether syntactic context is one such factor. We compare the production of Dutch noun phrases with diminutive and non-diminutive heads. Previous literature (Janssen and Caramazza, 2003) showed that naming latencies in the production of diminutive nouns are affected by syntactic information—specifically, grammatical gender and the presence of a agreeing determiner. Here, we ask whether this information affects whether the diminutive is used at all.

Janssen and Caraazza (2003), in examining the syntactic planning of Dutch NPs, take advantage of the fact that Dutch diminutives, which are always neuter, can be grammatically derived from base-words of any gender. They showed that participants responded more slowly when producing *incongruent* diminutive NPs—i.e. ones formed from non-neuter base words—than when producing *congruent* diminutives, which are formed from neuter base words. For example, participants initiated speech more slowly when producing incongruent *het beertje*, ‘the little bear (neuter)’, from *de beer*, ‘the bear (non-neuter),’ than when producing congruent *het schaapje*, ‘the little sheep (neuter),’ from *het schaap*, ‘the sheep (neuter).’ This effect is absent when forms are produced without an agreeing determiner. In other words, the morphological derivation is affected by syntactic context. We hypothesized that this effect would be also be observable in the choice of wordform. If speakers are deciding between a diminutive or non-diminutive form in running speech, they might be more likely to opt for the non-diminutive form exactly in those cases where retrieval of the diminutive is delayed—i.e., in cases where the diminutive would be incongruent and follows a definite determiner.

We tested our predictions with data from the CGN corpus of spoken Dutch (Schuurman et al 2003), extracting all instances of a noun whose lemma is also associated with a diminutive counterpart. We analyzed the observations with a mixed effects logistic regression model, with lemma as a random effect. The resulting model does not support the hypothesis. Although there was a main effect of congruency such that neuter base gender increases the probability of using the corresponding congruent diminutive ($p < .001$), and a main effect of context such that diminutives are less likely immediately after a definite determiner ($p < .001$), there was no interaction between gender and context. Further, when this analysis was repeated on a subset of the data restricted only to the semantic category of animal names, the only significant effect present in both models was that of frequency: higher log frequency consistently lowers the likelihood of a diminutive ($p < .001$). Congruency and context were not significant predictors.

Although the analysis is ongoing, these preliminary results suggest that the delay in production observed by Janssen and Caramazza does not straightforwardly translate into constraints on the choice of morphological form in conversational speech.

References

- Janssen, Niels and Alfonso Carmazza (2003). The selection of closed-class words in noun phrase production: The case of Dutch determiners. *Journal of Memory and Language*, 48:635-652.
- Schuurman, I., M. Schouppe, H. Hoekstra & T. van der Wouden (2003). CGN, an Annotated Corpus of Spoken Dutch. In *Proceedings of the 4th International Workshop on Linguistically Interpreted Corpora (LINC-03)*. 14 April, 2003. Budapest, Hungary.