

# Processing EXPERIENCE: The licensing of object-first structures in German and their stability across data types

## 1 Phenomenon

Non-canonical word order can be licensed via sentence-internal or -external factors (i.e. animacy, sentence type, context etc.). In German, object-experiencer verbs are known to license object-before-subject order. However, dative experiencers are more likely to front, whereas accusative experiencers ( $EXP_{ACC}$ ) are a challenge to experimental studies due to an intervening agentivity effect and the general  $S \prec O$  preference in German. In order to find evidence for the licensing power of  $EXP_{ACC}$  verbs, we conducted two experiments to investigate the subjects' preference regarding different contextually embedded configurations. Furthermore, we compare frequency output to relative judgment data both representing two different processing modules (cf. Featherston 2005). Our main questions are:

- Do  $EXP_{ACC}$  verbs license object fronting?
- Is it possible to induce  $O \prec S$  licensing properties in embedding contexts?
- Is there a difference between frequency & judgment data?

## 2 Material & Results

We designed a forced choice study (structure preference) with three binary factors  $CONTEXT$  (licensing  $O \prec S$  vs. non-licensing)  $\times$   $VERBTYPE$  (experiencer vs. non-experiencer verbs)  $\times$   $WORDORDER$  ( $S \prec O$  vs.  $O \prec S$ ). In a follow-up study we conducted a split-100 rating (cf. Bresnan 2007) with the same material and factorial structure. We hypothesized that the manipulated  $CONTEXT$  as well as experiencer verbs ( $VERBTYPE$ ) license object fronting and that both output types match per condition. See (1) for an  $EXP_{ACC}$  embedded in a licensing context.

- (1) Die meisten Marktverkäufer hatten Angst vor der Zukunft.  
'Most of the marketers were afraid of the future.'  
 $S \prec O$ : Der Umsatz hat den Fleischer **erfreut**.

$O \succ S$ : Den Fleischer hat der Umsatz **erfreut**.  
'( $S \prec O/O \prec S$ ) The butcher was pleased by the sales.'

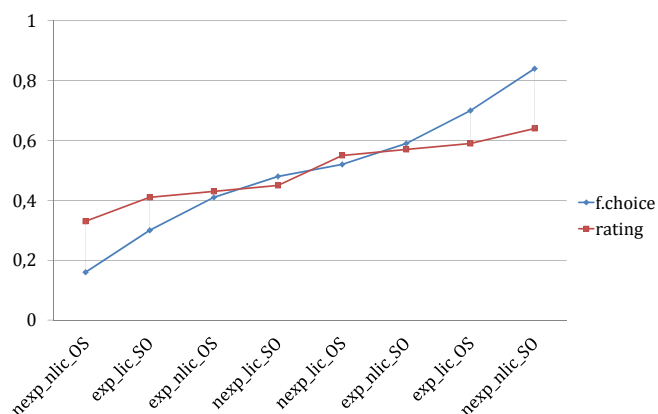


Figure 1: Frequency vs. rating data

We found significant effects of  $CONTEXT$  and  $VERBTYPE$  for the forced choice and the judgment data. Figure 1 displays the close alignment of both outputs in comparison. Our findings are:

- $EXP_{ACC}$  verbs license  $O \prec S$  order.
- Manipulated part-whole-relationships & adverbiality create contexts that significantly license  $O \prec S$  order.
- Frequency & judgment data match in conditions.

Design and task of the studies provide evidence for the contextual dependency of word order in German as well as the licensing power of  $EXP_{ACC}$  verbs. The data comparison gives insight to the relationship between occurrence probability and rating values.

## References

**Bresnan 2007.** Is syntactic knowledge probabilistic? Experiments with the English dative alternation. **Featherston 2005.** The Decathlon Model of Empirical Syntax.