Lexical preferences in Dutch ditransitives: From corpus frequencies to controlled production

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Background The choice between a double object (DO) construction and a prepositional object (PO) construction is guided by referential properties of the Theme and Recipient arguments such as animacy and definiteness (Bresnan et al. 2007). In addition, lexical properties of the verb play a role (e.g. Levin 2008, Gries 2005, Pickering and Branigan 2008). Alternating verbs may exhibit a preference for one of the two constructions, as is witnessed by corpus-based research (Gries and Stefanowitsch 2004). However, such distinctive collexeme analyses do not control for argument properties as potential confounding factors. That is, certain verbs may tend to occur with certain argument types which by themselves make for a strong preference in constructional choice.

Research Question Are constructional preferences part of the representation of ditransitive alternating verbs independently of argument properties? An answer to this question will shed further light on the relation between corpus-based studies and controlled experiments in the study of language production.

Method We selected 16 pairs of Dutch alternating ditransitive verbs, one with a DO and another with a PO preference, based on Colleman’s (2006) collexeme analysis. Each pair was combined with a human Agent, a human Recipient and an inanimate Theme argument (all definite NPs):

<table>
<thead>
<tr>
<th>[1]</th>
<th>Agent NP</th>
<th>Recipient NP</th>
<th>Theme NP</th>
<th>DO verb</th>
<th>PO verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>de president</td>
<td>de wetenschapper</td>
<td>de onderscheiding</td>
<td>aanbieden</td>
<td>overhandigen</td>
<td></td>
</tr>
<tr>
<td>'the president'</td>
<td>'the scientist'</td>
<td>'the award'</td>
<td>'offer'</td>
<td>'hand over'</td>
<td></td>
</tr>
</tbody>
</table>

A pre-test assessed the plausibility of each combination in each construction. The 9 most plausible pairs of verbs were included in an oral sentence completion task, following Ferreira (1996). 32 Participants were first given the Agent NP and the auxiliary heeft ‘has’ on a computer screen, followed by 3 words: two definite NPs (Theme and Recipient) and an infinitival verb. The verb always occurred in the middle with either the intended Theme or Recipient above it, in counterbalanced order. Participants were asked to complete the sentence with these 3 words. Their sentences were recorded, transcribed, and coded for the construction type and order of the arguments.

Results Figure 1 summarizes the results. Analyses with a logistic mixed effects model (Baayen 2008, Jaeger 2008) show that the produced construction is not fully determined by the order of presentation. Crucially, we also find an effect of verb type in line with their corpus preferences: DO-verbs produce more DO constructions in both orders of presentation relative to PO-verbs ($X^2(1)$: 8.97, p: 0.0027). There was no significant interaction between the two factors.
Discussion The results show that speakers have access to verbal preferences for one of the constructional alternatives of the dative alternation, and that these preferences constrain the choice of syntactic structure. This finding is in line with lexically-based grammar formalisms (see Huxley et al. 2007 for further discussion). The data also show that corpus-based and controlled production data exhibit very similar patterns. Hence, the study provides further evidence that corpus research is a good tool for the study of natural language production (see also Bresnan 2007, Jaeger 2010, Gries et al 2005).

References