To Strip or Not to Strip: A Production Experiment

Bettina Remmele, Sophia Schopper, Susanne Winkler (Universität Tübingen)

We analyze so-called stripping constructions such as “Susan works at night, and Bill, too.” as fragments since the second conjunct is incomplete. German allows a special kind of stripping where the word sequence is ambiguous between a stripping and a regular SVO analysis. An example is given in (1).

(1) JANINA BADET NADINE NICHT
Janina baths Nadine not

Without punctuation or disambiguating context, the verb “baden” can be used transitively or intransitively. The two readings of (1) differ in their syntactic phrasing which corresponds to its prosodic phrasing (Steedman 1991). An interpretation as two separate clauses realized as two intonational phrases (IPh) results in the stripping construction “Janina badet. Nadine [badet] nicht.”, as shown in (2-a). An interpretation as one intonation phrase results in the SVO structure “Janina badet Nadine nicht.”, as shown in (2-b).

(2) a. [CP1 [NP1 Janina] [VP badet]]. [CP2 [NP2 Nadine] [NEG nicht]].
Janina baths Nadine not.

‘Janina is bathing. Nadine isn’t [bathing]’

b. [CP [NP Janina] [VP [v badet] [NP2 Nadine] [NEG nicht]]].
Janina baths Nadine not.

‘Janina is not bathing Nadine’

In order to find out whether native speakers of German prosodically distinguish the stripping reading (2IPh) from the SVO reading (1IPh), we conducted a production study. Participants had to read the ambiguous word sequences as a follow-up to a short context that disambiguated the meaning towards one of the two readings. We were especially interested whether naïve and informed speakers make this prosodic distinction to the same degree.

The first group, Group-Inf, was informed about the ambiguity and the different possibilities to prosodically distinguish the two readings. They were presented with two contexts per item and, following the suggestions of Schafer, Speer, Warren and White (2000), they were given a clear communicative goal. The second group, Group-UnInf, did not receive any prior information. They saw only one of the two contexts before making their production and were not given a communicative goal.

Although we predicted that participants of both groups use prosodic phrasing (in particular breaks with the break index 4 to signal the location of an intonation phrase, following Beckman and Elam (1994)) to distinguish the two readings of (1), we expected Group-Inf to produce stronger prosodic cues, that is, longer breaks between VP and NP2 in the stripping reading. We postulated the following two hypotheses:

(3) Hypotheses

a. H1: In ongoing discourse, prosody is influenced by speaker intentions, and not by speaker strategies (=Nonstrategic Production Planning). Speaker intentions can be guided by factors such as context and discourse appropriateness.

b. H2: In certain preplanned discourse settings, informed speakers use prosody strategically by selecting one prosodic contour over another (=Strategic Production Planning). This is reflected in stronger prosodic cues in comparison to naïve speakers.
The term *nonstrategic production planning* (as in H1) is used to refer to speaker intentions that trigger the selection of a specific prosodic contour (Pierrehumbert & Hirschberg 1990; Wagner 2015), which we assume to be the underlying process of Group-UnInf. For Group-Inf, we postulate that speakers make use of *strategic production planning* due to the detailed set of instructions, the simultaneous presence of two contexts, and the clear communicative goal (H2).

The results of the production study confirmed all predictions. First, native speakers of German in both groups prosodically distinguished stripping constructions from SVO structures with the help of prosodic phrasing (with a 4 on the break index tier). Second, Group-Inf made an extra effort to increase the prosodic differences in the form of a more pronounced pause. Figure 1 illustrates the difference between the mean values of the dependent variable *length of pause*.

![Graph](image)

**Figure 1.** Differences between means of *length of pause* per IPh-Type and Group-Type

The analysis of the experiment yielded highly significant effects. In the ANOVAs with participants ($F_1$) and items ($F_2$) as random factors, the within subject factor IPh-Type (1IPh vs. 2IPh) was crossed with the between subject factor Group-Type (Group-UnInf vs. Group-Inf): IPh-Type was highly significant [$F_1(1,18)=7.722, p<.001; F_2(1,11)=183,704, p<.001$] and IPh-Type interacted with Group-Type [$F_1(1,18)=7.218, p=.015; F_2(1,11)=16,252, p<.01$].

We can thus conclude that both uninformed and informed speakers make use of prosodic phrasing as a disambiguation strategy to convey a specific meaning required by a certain context. However, the underlying mechanism is different. Whereas uninformed speakers make use of *nonstrategic production planning* (H1), we interpret the longer pause in the stripping condition between VP and NP2 as *strategic production planning* where the speaker makes a conscious choice for one or the other reading (H2).

**References:**


