

German *zum*-PPs as adjective intensifiers

Julia Lukassek¹, Maria Ermakova², Juliane Nau²

Humboldt-University Berlin¹, Berlin-Brandenburg Academy of Sciences and Humanities²

German *zum*-PPs with nominalized infinitives (NI) as internal arguments have an interpretation as adjective intensifiers, cf. (1). In dictionaries, these PP-internal arguments are usually paraphrased as *sehr* ('very').

- (1) a. Die Wale sind zum Greifen nah.
The whales are to-the grasp_{NI} close.
'The whales were very close.'
- b. Die Aussicht ist zum Sterben schön.
The view is to-the die_{NI} beautiful.
'The tram was very crowded.'
- c. Die Tram ist zum Platzen voll.
The tram ist to-the burst_{NI} crowded.
'The tram was very crowded.'

In an explorative corpus study in the freely available part of *Referenz- und Zeitungskorpus* hosted by dwds.de, we show that while a few of these PP-adjective combinations have a highly lexicalized flavour and motivate the constructional paraphrase as 'very', cf. (1a), the combination of *zum*-intensifiers and adjectives generally is highly variable w.r.t. both the PP-internal argument and the modified adjective, cf. (2a)-(2b).

- (2) a. zum Weinen {zart, vertraut, kompliziert, langweilig, schön}
to-the cry_{NI} {tender, familiar, complicated, boring, beautiful}
- b. {zum Lachen, zum Sterben, zum Niederknien} schön
{to-the laugh_{NI}, to-the die_{NI}, to-the kneel down_{NI}} beautiful

We take these data as an argument for a compositional reconstruction of the interpretation of *zum*-PP modifiers beyond a barely constructional meaning. Our proposal for such a model is based on three observations.

1. Conceptual compatibility: The relation between the adjective and the NI has to be conceptually plausible in the sense that the NI denotes an event that could be a plausible reaction to perceiving the property encoded by the adjective on the bearer, i.e. the beauty of the view in (1b), for instance. As a consequence, the NI is not freely exchangeable, but depends on the semantics of the target argument.

2. Hyperbolic interpretation: The involved nominalized infinitive denotes an event that represents an extreme reaction to or effect of the circumstance that the adjective holds of the bearer. For instance, in (1b) dying would be an extreme reaction to the perceived beauty of the view. The subject experiencing this potential effect is the speaker of the utterance. In contrast, in (1c) the event of bursting is an extreme effect of the tram being crowded. Here, the entity that is subjected to the potential extreme effect is the subject referent of the sentence, i.e. the tram. The observation that the effect has to be hyperbolic, can be further corroborated by the following contrast: *komisch* ('funny') can be modified by *zum Tränenlachen* ('to-the tears-laugh_{NI}'), but not by *zum Lächeln* ('to-the smile_{NI}'). I.e. a moderate reaction like smiling to something being funny cannot be encoded via *zum*-intensifiers, whereas an extreme reaction like laughing tears is possible.

3. Non-referentiality of the NI: The event denoted by the nominalized infinitive is non-referential, although referentiality would be expected due to the definite article within the DP. Neither (1b) nor (1c) entail that someone actually died or the tram actually burst. In

fact, in a situation where the tram burst, (1c) would not even be an adequate description of what happened.

We argue that **the first observation** concerning the conceptual compatibility motivates a semantics for *zum*-intensifiers that takes into account the meaning contribution of the NI. Contrary to previous lexicographic descriptions, we claim that the meaning contribution of the PP amounts to a specific kind of intensity retrieved from the NI-event, and not merely *sehr* ('very'). The NI has to meet specific conceptual and contextual requirements imposed by the combination with a specific adjective.

The second observation entails an attitudinal component in the semantics of *zum*-intensifiers. By using this kind of intensifier, the speaker contributes an attitude about the extent to which the adjectival property holds of the bearer. This attitude is expressed by a specific reaction or effect. In the case of (1b), the speaker is both the attitude holder and the experiencer of the reaction encoded in the NI. In the case of (1c), these two roles are split such that the attitude holder is the speaker and the experiencer of the effect is the subject referent. We claim that this difference is paralleled by differences in the adjectives' semantic properties (evaluative vs. dimensional).

We model attitudes in terms of ontological objects, cf. Moltmann (2014), involving entities of different sorts as arguments, cf. Montague (2007). The content of the attitudinal object involved in *zum*-Intensifiers is determined by two components: first, an evaluation of the extent to which the adjectival property holds of the bearer as extreme and second, a potential hyperbolic reaction to it. This hyperbolic reaction is encoded by the NI.

The third observation gives rise to a modalized semantics for *zum*-intensifiers. We argue against the view that the DP within the *zum*-intensifier is weak in the sense of Carlson et al. (2006) or Aguilar-Guevara & Zwarts (2010), although there are structural markers that could indicate this kind of analysis (most prominently: the definite article is merged with the preposition). Instead, we show that the preposition *zu* introduces a covert modal operator under which the NI is embedded. This accounts for the fact that the NI does not refer weakly, but rather not at all, as can be seen from the fact that referentiality of the NI in (1b) and (1c) would render the sentence inadequate. A precursor to this idea is Martin et al.'s (2020) analysis of goal-PPs with *zu/to* that involves a covert modal operator accounting for the defeasibility of the inference that a goal is reached.

We integrate these findings into a compositional model of the meaning constitution of sentences involving *zum*-intensifiers. The crucial feature of this model is the lexical semantics of the preposition *zum* that takes the NI and an adjective as arguments, contributes an attitude towards the adjectival extent and embeds the NI under a modal operator. Additionally, the lexical entry comes with a conceptual restriction concerning the compatibility of the adjective and the NI. Based on this lexical semantics, the meaning of sentences like those in (1b) and (1c) can be derived compositionally.

References

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