

Marking prominence in German Sign Language (DGS): A corpus analysis of object marking with the sign AUF

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Sign languages exploit the potential of the visual modality to associate referents with locations in space. This is seen in pointing signs and indicating verbs, as well as in forms that have been analyzed as auxiliary verbs to mark person and number when the verb itself cannot move through space. Recent research suggests a different analysis of these forms as an object marker for human objects of particular verb classes (Meir 2003 for Israeli Sign Language (ISL), Börstell 2017 for Swedish Sign Language (SSL) and Bross 2020 for German Sign Language (DGS)). For DGS, Bross (2020) proposes an analysis of this marker (glossed as AUF) as a Differential Object Marker (DOM) based on the affectedness of the object associated with the verb: obligatory occurrence with verbs with medium affected objects (e.g. *wait, know*; i.e. verbs in classes 3-5 in Tsunoda's 1985 hierarchy) and optional occurrence, depending on the definiteness of the object, with verbs high in affectedness (e.g. *hit, kill*; i.e. verbs in classes 1-2 in Tsunoda's 1985 hierarchy). We test these claims through an investigation of naturalistic corpus data (DGS public corpus, University of Hamburg, Konrad et al. 2020). We perform two analyses to better understand the effects of animacy (Analysis 1) and affectedness and definiteness (Analysis 2) on the use of AUF in DGS.

In the first analysis, we selected a subset of data from the corpus (signers from three distinct regions of Germany: Cologne, Stuttgart, Berlin) and identified all occurrences of AUF based on existing glosses of the corpus (N=135). For each occurrence, we coded the animacy of the object associated with AUF (animate human, animate non-human, inanimate). In the second analysis, we focussed on verbs with medium affected objects (*wait, search, proud, love, know, remember*). We identified all occurrences of these six verbs based on existing glosses of the corpus (N=294). We coded each predicate for occurrence with AUF (with AUF, without AUF), type of object expression (noun, pronoun, complement clause, present addressee, zero), animacy of object (animate human, animate non-human, inanimate), and definiteness of object (definite, indefinite).

Results from Analysis 1 confirm that the use of AUF strongly favors the occurrence with human objects (N=128; 95%), supporting previous findings. Interestingly, when AUF occurred with non-human objects (N=7; 5%), the contexts were such that the objects had agent-like qualities. For example, AUF occurred with "sports" in a context in which sports (i.e. the subject's outstanding athletic ability) is credited with paying for the subject's ability to travel around the world. In another example, the object is the name of a city and the city is described as getting upset about something. Based on the results of Analysis 1, in which the primacy of AUF with human objects was confirmed, we analyzed only verbs occurring with human objects in Analysis 2 (N=30; 10% of all verbs in our sample). We found that only a small proportion of these objects occurred with AUF (N=4). This contradicts the claim by Bross (2020) that AUF is obligatory with verbs with medium affected objects (i.e. verbs in Tsunoda's classes 3-5). In addition, definiteness may affect the use of AUF in these verbs, similarly to what Bross (2020) claims for high affected objects (i.e. verbs in Tsunoda's classes 1-2), where the optional use of AUF is related to definiteness effects: AUF as a

differential object marker that marks definite objects. For the medium affected verbs that we analyzed, we found that AUF never occurred with indefinite objects. However, we found definite objects occurring both with (N=4) and without (N=8) AUF, such that an explanation of the effects of definiteness on the use of AUF requires further investigation.

Though based on a limited data set (coding and analyses are ongoing), these preliminary results suggest that the object's animacy (specifically human animacy) is the main factor that influences the use of AUF to mark the object. This can be explained in terms of prominence, since when both the agent and patient are human, the competition between arguments to identify the most prominent argument is greater compared to when one of the arguments is non-human, e.g. inanimate. In these cases, AUF distinguishes the agent from the patient, pointing to prominence relations as a relevant factor determining the use of AUF. In the rare cases in which AUF was used to mark a place or other type of inanimate referent, the context attributes agentivity to these arguments, essentially anthropomorphizing them and attributing characteristics that only humans typically have - and thus providing strong support for the link between animacy and use of AUF, as proposed by Bross (2020). On the other hand, the second analysis suggests that there is no obligation to use AUF with verbs with medium affected objects (i.e. verbs like *wait*, *know*), as predicted by Bross (2020). We preliminarily propose that the use of AUF is related to definiteness effects in these verb classes as well, suggesting overall that definite animate objects are better candidates for receiving marking with AUF than indefinite animate objects. In our ongoing analysis, we pursue explanations based on prominence relations as a potentially important factor influencing the spatial marking of referents in space in a signed language.

Keywords: Differential object marking, sign languages, DGS, prominence

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