

An information-theoretic account of constituent order in the German middle field

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The order of constituents in German is relatively free. However, certain word orders are preferred, such as (1a) with dative > accusative objects and (2a) with given > new, even though all orders are possible and do occur in natural data. Among the known influencing factors are animacy, familiarity, givenness, salience, length (e.g., Lenerz, 1977; Speyer, 2011).

- (1) a. Ich werde [einem Jungen]_{Dat} [ein Buch]_{Acc} geben.
b. Ich werde [ein Buch]_{Acc} [einem Jungen]_{Dat} geben.
- (2) a. Ich werde [dem Jungen]_{Dat} [ein Buch]_{Acc} geben.
b. Ich werde [einem Jungen]_{Acc} [das Buch]_{Dat} geben.

In our poster, we aim at explaining this phenomenon based on the cognitive processability of the constructions, which we measure by information density. Our corpus study is based on the SdeWaC (Faaß and Eckart, 2013). We select sentences from the corpus that contain a ditransitive verb with a dative (DA) and an accusative (OA) object in the middle field. We use the DORM score (Deviation Of the Rolling Mean; Cuskley et al., 2021) to quantify the uniformity of a sentence's information profile. Our investigations show that the marked orders are associated with particularly smooth information profiles, which we regard as a possible explanation for the deviations from the unmarked orders.

- (3) Ein Kaiser und ein König werden sich vielleicht bücken, um [einem Maler]_{DAindef} [den Pinsel]_{OAdef} aufzuheben [...] (SdeWaC, sentence 209367)

References: Cuskley, C., Bailes, R., and Wallenberg, J. (2021): Noise resistance in communication: Quantifying uniformity and optimality. In: *Cognition* 214. • Faaß, G., Eckart, K. (2013): SdeWaC – a corpus of parsable sentences from the web. In: *Language Processing and Knowledge in the Web. Proceedings of GSCL*. • Lenerz, J. (1977): *Zur Abfolge nominaler Satzglieder im Deutschen*. Narr. • Speyer, A. (2011): Die Freiheit der Mittelfeldabfolge im Deutschen – ein modernes Phänomen. In: *Beiträge zur Geschichte der deutschen Sprache und Literatur* 133, 14–31.