

More Evidence for an Iconic Mapping of Clausal Categories Onto the Body in German Sign Language (*Deutsche Gebärdensprache*)

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Cross-linguistic research on spoken languages has found a strict ordering of inflectional categories in the clausal spine: The higher/wider the scope of a category is, the higher up it is located in the clausal hierarchy. This research has suggested that this hierarchy is probably universal and found in all languages of the world (Cinque 1999, 2006). For German Sign Language (*Deutsche Gebärdensprache*, DGS), it was recently argued that the hierarchical organization of clausal categories is mapped in an iconic way onto the body (Bross & Hole 2017): Categories taking high scope, such as speech-act-indicating expressions or epistemic modality, are expressed with the upper face (simultaneously with manual signs), mainly with the eye-brows. Categories with intermediate scope, e.g., scalarity, find expression via the lower face (again, layered onto manual expressions), i.e., the cheeks. Finally, categories with lower scope, such as volition, deontic or root modality, are produced manually, i.e., by concatenating manual signs in a temporal order. The categories taking low scope are, when descending the hierarchy, concatenated first from left-to-right (e.g., volitional markers) and finally from right-to-left (e.g., root modals). Bross & Hole's findings are summarized in the left part of Figure 1. The figure shows a sample of Cinquean categories on the left and their expression in DGS on the right.

The aim of the present poster is to extend these findings by a whole bunch of additional categories from Cinque's (1999, 2006) hierarchy in all three clausal domains (CP, TP, and VoiceP). Based on elicitations and judgments from five deaf native signers the expression of the categories depicted in Figure 1 (on the right) in German Sign Language will be discussed. The higher categories are extended by mirativity and evidentiality. Additionally, some data on alethic modality will be presented, which also finds layered expression, although it is located below tense in Cinque's system. It will be argued that alethic modality actually takes scope higher than tense. The TP categories are extended by various aspectual categories, including habitual, celerative, and retrospective aspect. While DGS is assumed to be a tenseless language, data from other sign languages like Italian Sign Language (*Lingua dei Segni Italiana*, LIS) neatly fits into the picture, as tense in LIS is expressed via verbal inflection through shoulder movements (Zucchi 2009) thereby having a position vertically in between high/facial and low/manual operators. Finally, voice, celerative aspect II, and frequentative aspect II representing categories that are located inside the VoiceP, will be discussed.

The findings presented in this poster corroborate the idea that there is an iconic mapping of syntactic to bodily height (i.e., that descending the hierarchy means descending the body) in German Sign Language and probably in other sign languages as well. The data from the lower aspectual categories leads to an additional hypothesis: low aspectual categories inside the VoiceP layer are incorporated into the manual sign (while Cinque's voice itself is produced via right-to-left concatenation). Of special interest are the comparisons between celerative aspect I and II and between frequentative I and II:

- (1) a. PAUL FAST HAND-RAISE
'Paul quickly raises his hand.'
b. ?PAUL HAND-RAISE FAST
'Paul quickly raises his hand.'
c. PAUL HAND-RAISE_{fast}
'Paul raises his hand quickly.'
- (2) a. PAUL PAM MARIA OFTEN INSULT
'Paul often insults Maria.'
b. ?PAUL PAM MARIA INSULT OFTEN
'Paul often insults Maria.'

- c. PAUL PAM MARIA INSULT++
 ‘Paul insults Maria often/many times in a row.’

While the examples in (1a), (1b), (2a), and (2b) show that the higher aspectual categories of celerative I and frequentative I are left-headed (the right-headed structures were judged marked), the aspects inside the VoiceP layer are produced by manipulating the manual operator.

Additionally, this poster will discuss the fact that most of the higher categories can find expression not only via non-manual marking, but can also be expressed with manual markers. In these cases, the non-manual marking still has to be present (in a slightly attenuated form). An example for the expression of epistemic modality are the two sentences in (3a) and (3b).

- (3) a. $\frac{\text{head bow}}{\text{squint}}$ PAUL SATURDAY WORK
 ‘Probably, Paul works Saturdays.’
- b. $\frac{\text{head bow}}{\text{squint}}$ PROBABLY PAUL SATURDAY WORK
 ‘Probably, Paul works Saturdays.’

It will be argued that the meaning difference between such sentence pairs is that layered information, as in (3a), is not-at-issue and concatenated material, as in (3b), is at-issue (see Simons et al. 2010; Tonhauser et al. 2013). That means that concatenated sentences like (1b) actually mean *It is probable that Paul works on Saturdays* (or: *That Paul works on Saturdays is probable*) and therefore contain an additional clausal layer.

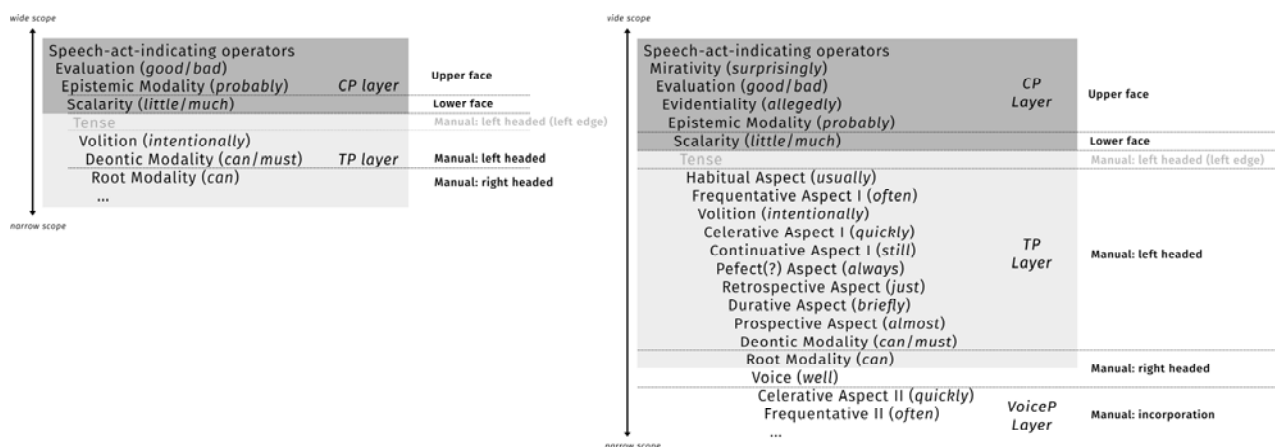


Figure 1: On the left: the original categories used in Bross & Hole (2017); on the right: the categories used in the present study corroborate these findings; Note that there is no tense in DGS, the tense node is only added for orientational purposes.

References

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