



# 1. Verb agreement in and across sign languages

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## I. The form-meaning mismatch

- Verb agreement in spoken languages is an instance of 1:0 form-meaning mismatch. By contrast, verb agreement in sign languages has a gestural origin (Meir 2002; Aronoff et al. 2005; Steinbach 2011).
- On the one side, agreement between the verb and the subject and object is morphosyntactic, as shown by:
- i. the presence of two distinct verb types plain verbs and agreement verbs, and
- ii. the development of agreement auxiliaries.
- On the other, sign language agreement is semantic, since
- i. it its gestural origin is still partly transparent.
  - it is constrained by (discourse) semantic properties of the corresponding argument(s).

Question  $\rightarrow$  To what extent does verbal agreement in sign languages constitute a 1:0 form-meaning mismatch?

#### II. Motivation

- Sign language agreement is critical to understanding the interaction between morphology, syntax and semantics in verbal inflection.
- Specific properties of sign language agreement:
- i. gestural spatial basis,
- ii. some modality-specific properties, but also
- iii. grammaticalized agreement systems.

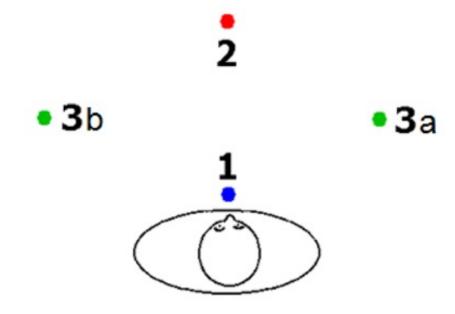


Figure 1: Localization of referents in the signing space

- Given these properties, an investigation of agreement in sign languages will inform us about:
- i. how inflectional systems emerge in the visual-gestural modality at the interface between gesture and sign, and
- ii. whether theories of spoken language agreement can also explain the specific properties of these systems.

#### III. Research questions

- How can the specific properties of sign language agreement be explained, and whether they can be derived from general properties of visual-gestural modality?
- To what extent can the existing theories of spoken language agreement explain sign language agreement, particularly in view of its gestural origin?
- To what extent is sign language agreement an arbitrary grammatical system and to what extent it still has a transparent semantic (gestural) basis?

## IV. Hypotheses and method

Hypothesis  $\rightarrow$  verb agreement system in sign language is hybrid in combining transparent semantic with arbitrary morphosyntactic properties.

- First step: pilot corpus study on specific aspects of agreement in German Sign Language (DGS) with focus on:
- i. semantic and contextual constraints on the inflection of agreement verbs, and
- ii. the combination of the DGS agreement auxiliary PAM with plain and agreement verbs (cf. Figure 2).
- Second step: experimental studies on the gestural origin and the grammatical status of agreement in German Sign Language via:
- i. semantic association tasks
- ii. sentence reproduction tasks manipulating overt agreement inflection.
- Final step: comparison of the results of the empirical studies with existing analyses (Holler & Steinbach 2018; Pfau et al. 2018).

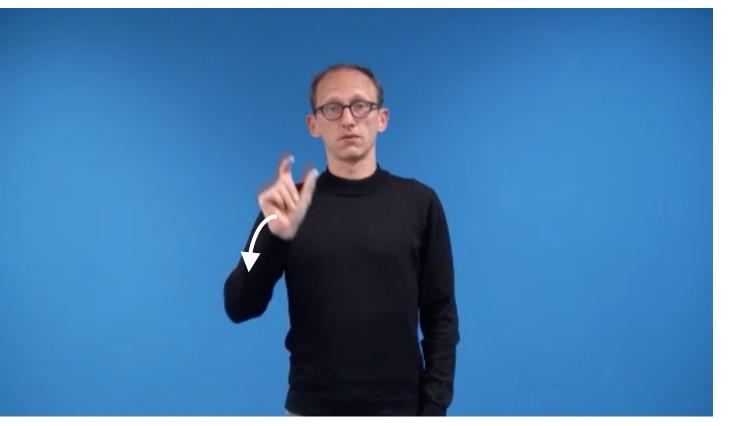




Figure 2: Two video stills showing the beginning (subject) and end (object) point of the path movement of the agreement auxiliary PAM (Person Agreement Marker) in DGS thereby expressing spatial agreement with two arguments (subject and object) of the main verb

### V. Connections to other research projects

- Type of form-meaning mismatch: 2,3 (1:0 form-meaning mismatch)
- Empirical domain: 4,7,10 (Language variation across modalities)
- Content: 3,7,8
- Methods: 3,6,7,9 (experiments)
  virtually all (corpus study)

#### VI. Possible follow-up studies

- 1. Classifier agreement in sign languages
- 2. The emergence of agreement systems across modalities
- 3. Gestural agreement in spoken languages