**Motivation in Two-Handed Signs: A Cross-Linguistic Investigation of Word Forms**

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**Introduction**

Two-handed signs are subject to formal constraints and can change over time or under certain phonological and morphological conditions. Is the underlying division between one- and two-handed signs totally arbitrary?

**Main Questions**

1) How can meaning predict whether a sign will be two-handed?
2) What meanings recur among two-handed signs, across languages?

**Part 1: Two-Handedness Is Not Due to Chance**

For 250 concepts in 3 languages: Is the sign two-handed or one-handed? 59 concepts are expressed using two-handed signs in all 3 languages, even though the exact forms are often not identical. Compare to 25 expected to overlap due to chance (binomial test, p<.001).

**Part 2: Two-Handed Signs Encode Relationship Types**

Semantic features mapped to two-handed signs across languages, with examples of concepts

**Discussion and Conclusions**

Looking at groups of two-handed signs, we identified recurring mappings:
The two hands are frequently used to show:
- Participants in an event
- Spatial configurations
- Physical dimensions
- Internal composition

Certain meanings drive two-handedness:
- the body instead of a flat hand
- two fingers instead of two hands

Meaning is not deterministic, however:
- two fingers instead of two hands
- the body instead of a flat hand
- languages can vary arbitrarily

Meaning is ONE of the factors that can influence whether a sign will be two-handed

Predictions about tendencies can only be validated via cross-linguistic comparison.

**Future Directions**

Currently testing hypotheses in a new village sign language, Al-Sayyid Bedouin SL:

Extending our dataset to include non-Western, non-urban sign languages, for a more complete picture and to further refine our hypotheses:

Extending our hypotheses by looking at the relationship between classifiers and lexical signs, as well as patterns for one-handed lexical signs.

**Appendix: More on Semantic Features**

We chose to uniquely label the terminal nodes in our tree, but these nodes could be replaced with sets of binary features:

**References**