

# Towards a unified view of "co-sign gesture" depictions as demonstrations

## Natasha Thalluri, Kathryn Davidson (Harvard University)

Formal and Experimental Advances in Sign Language Theory (FEAST 2024)- Ann Arbor, MI, USA

### Classifier Predicates (ASL)

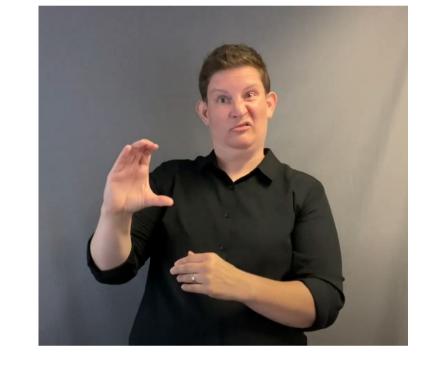


CL:C-"thick" BOOK

2-GIVEo-1



Language  $\lambda d.\lambda x.\lambda s.[theme(s,x)]$  $\Lambda$  flat-object(x)  $\Lambda$  thick(s)  $\Lambda$ 



Gesture Demonstration(d<sub>0</sub>, e)]

### "Co-sign" gesture as demonstration

A demonstration event **d** is a demonstration of another event e (i.e. demonstration(d, e) holds) if d reproduces properties of e relevant in the context of speech

[[demonstration - like]]=λd.λe[demonstration(d, e)]

#### Language

#### Linguistic content describing the event (e)/ state (s) agent or theme of an utterance

#### Gesture

Iconic content demonstrating (d) the event (e)/ state (s) of an utterance.

### Action Role shift (DGS)

Steinbach (2023)



fe-boy pondering

Demonstration(d<sub>10</sub>, e)]



fe-boy have-an-idea



fe-boy **HAVE-IDEA** 

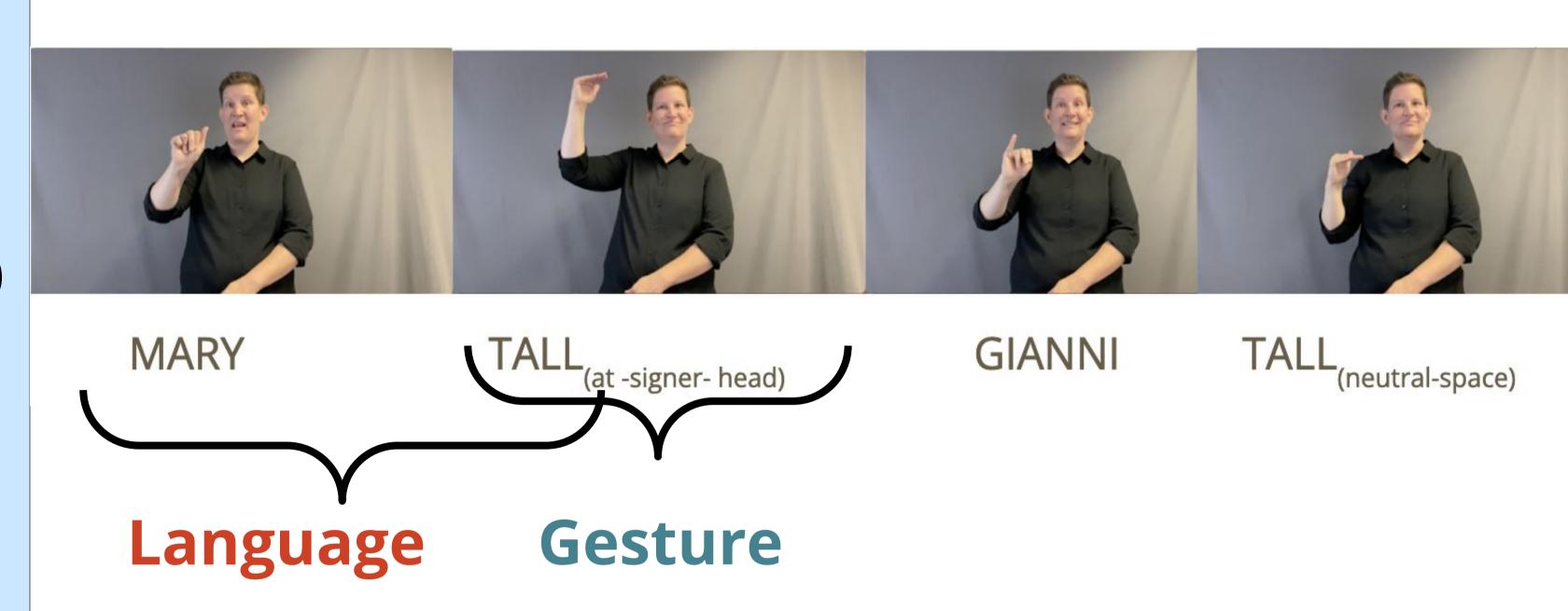
### Gesture

#### Language

 $\exists$  e[have-idea(e)  $\land$  agent(e, shepherd-boy) ∧ form(e, ('HAVE-IDEA')

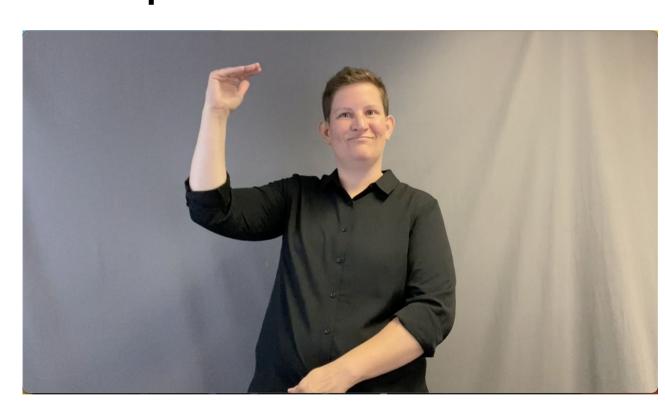
- Gesture is often integrated with linguistic structure in sign (and spoken) language.
- We draw inferences from both the linguistic and gestural components.
- Analyzing iconicity as gesture doesn't preclude a formal semantic analysis.
- Demonstrations provide a uniform semantic tool for iconicity across various sign language phenomena.

### Iconic Comparatives (ASL)



 $\lambda s(s \in domain(\langle D_{height} \geq height \rangle)).$ Tall<sub>c</sub>(s) ∧ Holder (s, Mary ) **Demonstration (d<sub>1</sub>, s))**]

#### Comparison via demonstration





(Mary's height)  $d_1 > 0$ (Gianni's Height) i.e the height depicted in  $d_1$  is greater than the height depicted in  $d_2$ 

#### Selected References

- Aristodemo, Valentina, and Carlo Geraci. 2018. 'Visible Degrees in Italian Sign Language'. Natural Language & Linguistic Theory 36 (3): 685–99. <a href="https://doi.org/10.1007/s11049-017-9389-5">https://doi.org/10.1007/s11049-017-9389-5</a>.
- Davidson, Kathryn. 2015. 'Quotation, Demonstration, and Iconicity'. Linguistics and Philosophy 38 (6): 477–520 <a href="https://doi.org/10.1007/s10988-015-9180-1">https://doi.org/10.1007/s10988-015-9180-1</a>. Kentner, Ashley. "Examining the Syntax and Semantics of ASL MORE-and BEAT-constructions." PhD diss., Purdue University, 2020
- Koulidobrova, Elena, Gabriel Martínez Vera, Kim Kurz, and Christopher Kurz. 2023. 'Revisiting Gradability in American Sign Language (ASL)'. Glossa: A Journal of General Linguistics 8 (1). https://doi.org/10.16995/glossa.9904.
- Steinbach, Markus. 2023. 'Angry Lions and Scared Neighbors: Complex Demonstrations in Sign Language Role Shift at the Sign-Gesture Interface'. Linguistics 61 (2): 391-416. https://doi.org/10.1515/ling-2021-0081.
- Wilbur, Ronnie B., Evie Malaia, and Robin A. Shay. "Degree modification and intensification in American Sign Language adjectives." In Logic, Language and Meaning: 18th Amsterdam Colloquium, Amsterdam, The Netherlands, December 19-21, 2011, Revised Selected Papers, pp. 92-101. Springer Berlin Heidelberg, 2012.