Affirming and rejecting assertions in German Sign Language (DGS)

Cornelia Loos[1], Sophie Repp[2], Marlijn Meijer[2] & Markus Steinbach[1]

[1]University of Göttingen; [2]University of Cologne

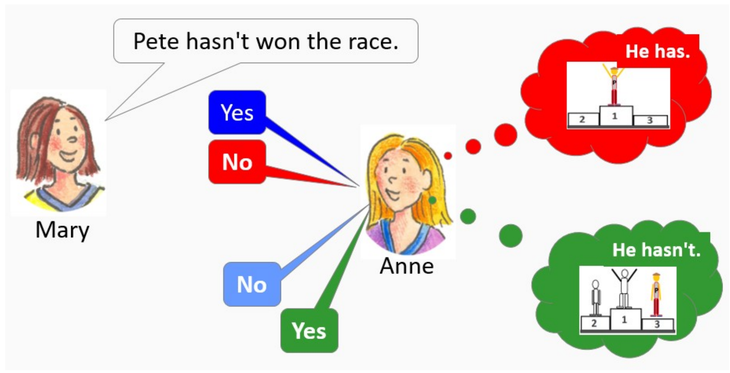
Introduction

THE ISSUE

Response particles do double duty:

- They AFFIRM and REJECT
- They signal that the answer expresses a POSITIVE or a NEGATIVE sentence.

➢ The meaning of *yes* and *no is* unclear in response to a negative assertion ('negative neutralization'; Kramer & Rawlins 2009)



Different languages seem to make different choices in how far *yes/no* preferentially signal affirmation/ rejection or polarity. What exactly the preference patterns are is underexplored.

CURRENT RESEARCH

1. **Which response elements form part of the polar response system of DGS?**
2. **What meaning is contributed by a) manual particles, b) mouthing, and c) nonmanuals?**
3. **How are response elements combined a) simultaneously and b) consecutively?**

PREVIOUS STUDIES

Experimental results for German and English responses to negative assertions:

- **German** (Claus et al. 2017): Clear pattern in rejections, but great inter-individual variation in affirmations
  - Affirmations: *ja* > *nein* (majority); *nein* > *ja* (minority)
  - Rejections: *doch* > *nein* > *ja*
- **US English** (Brasoveanu, Farkas & Roelofsen 2013):
  - Affirmations: *no* > *yes*

THEORY: THE FEATURE MODEL (Roelofsen & Farkas 2015)

- Polarity is encoded via absolute [+/-] and relative [AGREE/REVERSE] features, which map onto response particles:

English: [+] & [AGREE] ⟶ yes , [–] & [REVERSE] ⟶ no
German: [+] & [AGREE] ⟶ ja , [–] & [REVERSE] ⟶ nein, [+, REVERSE] ⟶ doch

- Feature mapping proceeds according to ranked OT constraints:
  REALIZE MARKED FEATURES, AVOID AMBIGUITY, EXPRESSIVENESS, REALIZE RELATIVE FEATURES, REALIZE ABSOLUTE FEATURES

Experimental design

DESIGN

- **Dialogue Completion Task** to elicit semi-spontaneous responses to positive and negative assertions
- **Participants**: 24 (near-) native DGS signers (17f, 7m, aged 18-55)
- **2 x 2 design**:
  antecedent polarity (pos./neg.) **x** **response type** (affirm/reject)
- **24 Items** x 4 conditions = 96 trials, distributed over 2 lists
- **Annotated so far**: Responses to negative assertions (576 tokens)

PROCEDURE & SAMPLE MATERIALS

Participants watched videos in DGS involving the two characters Peter and Alex.

Video of narrator:

Peter and Alex are elementary school teachers. They're organizing a school party with the help of some of the parents. **Alex just learnt that the parents have already bought the beverages.** A little later, Peter and Alex discuss the tasks assigned to the parents.

Video of Peter: PARENTS DRINK ALREADY FETCH

The parents have bought the beverages already.

top hs

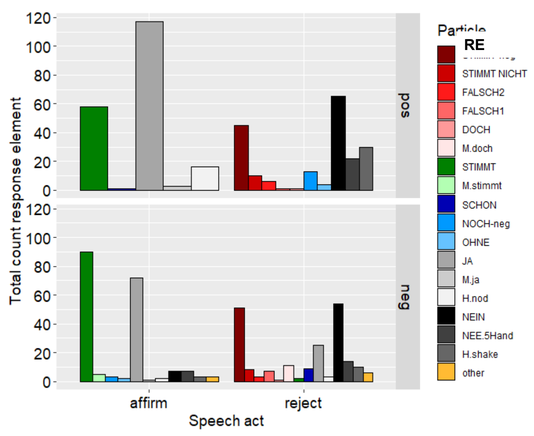
PARENTS DRINK FETCH NOT-YET

The parents haven't bought the beverages yet.

Results: First response elements (REs)

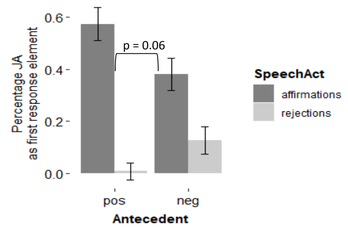
Types of RE

- rejecting [REVERSE]
- affirming [AGREE]
- polarity-indicating [+], [–]
- ambiguous

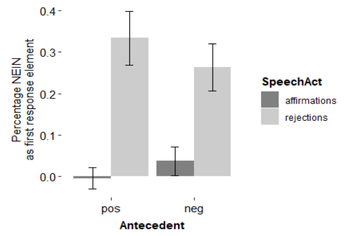


Analysis of ambiguous REs

JA 'yes'



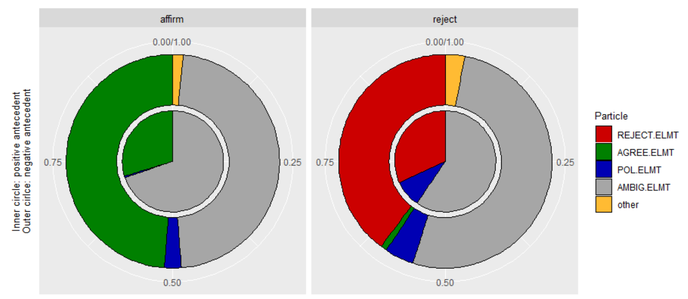
NEIN 'no'



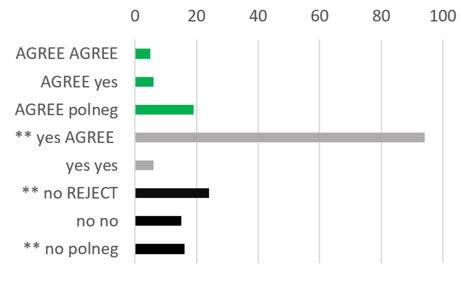
- Can encode absolute or relative features. Show a clear preference for realizing relative (truth-based) features
  ⟶ **REALIZE RELATIVE FEATURES** ranks highly

Reducing ambiguity

- Fewer ambiguous REs in responses to negative antecedents ($p < 0.001$ in affirmations)



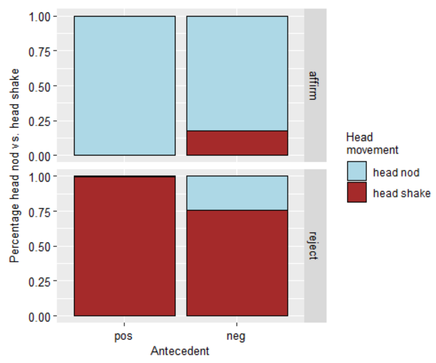
- A second RE may disambiguate an ambiguous RE1. In affirmations, RE2 is unambiguous more often following negative antecedents than positive ones ($p < 0.05$)



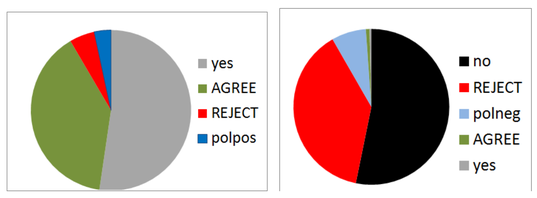
- Nonmanuals (head movement, brow movement, mouthing) occur more frequently with negative antecedents
  ⟶ **AVOID AMBIGUITY** is operative

Analysis of head movement

After neg. antecedents, head nods and shakes occur in affirmations and rejections; clear preference for encoding relative features ($p < 0.01$)



Head movement shows concord with RE1:



Rare mismatches indicate division of labor:

nod

NOT-RIGHT

References

Claus, Berry, A. Marlijn Meijer, Sophie Repp & Manfred Krifka 2017. Puzzling response particles: An experimental study on the German answering system. *Semantic and Pragmatics.* | Brasoveanu, Adrian, Donka Farkas & Floris Roelofsen. 2013. N-words and sentential negation: Evidence from polarity particles and VP ellipsis. *Semantics & Pragmatics*|Kramer, Ruth & Kyle Rawlins 2009. Polarity particles: an ellipsis account. In *Proceedings of the 39th Annual Meeting of the North East Linguistic Society.*

cornelia.loos@uni-goettingen.de