Where does this end?
Sentence boundary identification in natural DGS
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Fenlon et al. (2007) found that subjects with and without a background in sign language can identify sentence boundaries in their languages with relatively high accuracy. In addition, persons with a background in sign language can identify sentence boundaries in an unknown sign language with high precision. The stimuli used were pre-recorded, pre-practiced narratives. With my study, I raise the question whether sentence boundaries in German Sign Language (DGS) can be identified in natural, spontaneous utterances with similar high accuracy as found by Fenlon et al. (2007). The hypothesis tested in this study is: “Due to their intuition, native signers of DGS can identify sentence boundaries in natural DGS, resulting in a high inter-annotator agreement.”

Preparations

Methodological pre-test
- Pre-test to find best test method
  - 4 deaf informants
    - 1 female, 3 male, different age groups
    - DGS acquisition: before age of 10 years
  - 2 female, 2 male, different age groups
  - DGS signers

Results
- Personal signing style
- Participants need time to adapt to signing style of informants
- Calculation of individual signing speed of informants

Participants
- Individual differences in understanding of the concept “sentence”
- Questionnaire: Segmentation strategy
- Individual response times
- Test for individual reaction time (RT) of participants

Informants:
- Calculation of individual signing speed of informants (narrow transcription)

Sentence Boundary Identification Task

Fenlon et al. (2007)
- Task: “Press enter on the keyboard when you perceive a sentence ending.” No definition of “sentence” given in the instruction
- Participants: 2 groups: 6 deaf native signers of BSL; 6 hearing non-signers
- Stimuli: from ECHO project (http://sign-lang.ruhodsi.nl/echo)
  - 1 text format: 4 tables
  - Signers: 1 female, 1 male native BSL signers
  - experienced story tellers
  - one week in advance to prepare the tables

My study
- Task: from the public DGS Corpus (meine-DGS.de)
  - 2 text formats: Subject Areas and Experience Report
  - Signers: 1 female, 3 male native DGS signers
  - same region of origin as participants

Procedure
- practice: different signers / narrations (avoid familiarity)
  - per participant: 2 stimuli films
  - within-subject reliability: segment each stimulus twice
  - one week in advance to prepare the tables

Software

Preliminary Findings

In contrast to what was found by Fenlon et al. (2007) for pre-practiced stimuli, participants do not agree upon sentence boundaries in natural and spontaneous DGS with high accuracy. Instead, the number of agreements found is surprisingly small. This difference might be due to the different types of stimuli used. However, further analyses are needed for clarification.

Discussion & Outlook

Further analyses:
- Include mean RT per participant in analysis
- Analyses of agreements: what triggers them?
  - Differences in strategies to mark sentence boundaries
- Analysis of segmentation questionnaire
  - Influence of text type

Further research:
- Same test with oral languages
- Same test with hearing persons / signers of a different sign language

Literature


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