Workshop “Cross-linguistic investigations of sign languages: can similarities and differences be detected without appropriate tools for representing and analyzing signed texts?”

Elena Pizzuto - Introductory Notes: Some “points” and illustrative examples

The main issue we want to address: do we have appropriate tools for conducting accurate cross-linguistic investigations of signed languages, notably of signed texts?

The main problem we encounter:
The notation systems currently available are useful for transcribing and analysing individual manual signs but, paradoxically, cannot be easily employed for representing longer sequences of signs occurring in spontaneous conversation and discourse.

Most research on signed texts, and on morphological and syntactic patterns that are identifiable only in context, is conducted using what are called “sign glosses“: labels for the signs’ meanings in, for example, Italian or English. This practice is clearly detrimental for the advancement of crosslinguistic research on signed languages.

In this workshop we try to:
A) Clarify the problems posed by the use of glosses (of any kind), reflecting upon the differences between glossing as it is done in spoken vs. signed language research.
B) Evaluate from a cross-linguistic perspective some of the major tools currently used for representing and analysing signed texts.
A) Trying to clarify the use of glosses in spoken vs. signed language research

1) Glossing spoken language utterances or fragments: one example from Slobin & al (1999)/ Talmy (1985) - two classifier morphemes of Atsugewy:

it - mic

it = linear_object_in_lying posture

mic = move_down_on_onto_ground

the spoken word (or morpheme) sequence “it-mic” can thus be appropriately glossed (and analysed) as:

it - mic

linear_object_in_lying_posture - move_down_on_onto_ground
2) An utterance with the same meaning produced in spoken Italian, German, and English, represented only via the following English gloss-notation:

Italian: DET wolf eat (3SG) DET lamb
German: DET wolf eat (3SG) DET lamb
English: DET wolf eat (3SG) DET lamb

2a) OR via much more detailed morphological glosses, as:

Italian: ART&DEF& MASC & SG N&MASC&SG V&PRES-3SG
       ART&DEF& MASC&SG N&MASC&SG

German: ART&DEF& MASC & SG & NOM N&MASC & SG V&PRES-3SG
       ART&DEF& MASC & SG & ACC N&NEU & SG

English: ART&DEF N&SG V&PRES-3SG ART&DEF N&SG
Questions:

- Can we reconstruct from this detailed glossing the sound sequences of the original utterance in each language? Can we have a somewhat more precise idea of the lexical and morphological similarities and differences?

- Can we independently support the appropriateness of the morphological analysis performed, or compare it with different morphological segmentation and analyses, i.e. can we for example check the analysis done against an independently provided written notation, of (almost) any kind?

2b) An orthographic transcription of the utterances along with morphological glossing:

Italian: Il lupo mangia l’agnello
    ART&DEF&MASC&SG N-MASC&SG V&PRES-3SG
    ART&DEF&MASC&SG N-MASC&SG

German: Der Wolf frisst das Lamm
    ART&DEF&MASC&SG&NOM N&MASC&SG V&PRES-3SG
    ART&DEF&MASC&SG&ACC N&NEU&SG

English: The wolf eats the lamb
    ART&DEF N&SG V&PRES-3SG ART&DEF N&SG
3) Can multimedia technologies help? Yes, but still:

Signa (sic ut verba) volant, scripta manent

(Signs, like spoken words, fly away, written words remain)

B) Trying to evaluate from a cross-linguistic perspective some of the major tools currently used for representing and analysing signed texts.

Proposing an apparently simple, extremely circumscribed two-steps task:

1) Take a single Italian Sign Language (LIS) utterance (elicited via a picture) exhibiting morphosyntactic features that are common across signed languages, write/transcribe/notate it with different writing/notation systems, and explore empirically the question: how effectively each of the proposed/available systems can represent the most salient linguistic features of this utterance?

2) Collect utterances of the same meaning, elicited via the same picture used for the LIS utterance, produced in different signed languages (e.g. American, German, Nicaraguan Sign Languages), write/transcribe/notate them with different writing/notation systems, and examine how effectively each of the proposed/available systems can capture relevant crosslinguistic similarities and differences
The stimulus picture used to elicit the target utterance in LIS and other signed languages:
The LIS utterance, illustrated here via selected, sequentially arranged stills from the video data:
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The IRA (Issues Raising Approach) applied to different written representations of a single LIS utterance

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Illustrative examples

1) An English glosses (+ selected stills) representation

- x DOG
- 3a CL-S
- x CAT
- 3a CL-S
- 3b CL-S
- 3a CL-S
- 3b CHASE 3a
2) A SignFont (+ selected stills) representation
3) A Sign Writing (+ selected stills) representation: *Valerie Sutton’s version
4) A Sign Writing (+ selected stills) representation: Paolo Rossini & Barbara Pennacchi’s version
5) The English glosses, Sign Font, and Sign Writing representations (- stills)

(Gloss)

LH \( \times \text{DOG} \) 3aCL-S---------||
RH \( \times \text{CAT} \) 3bCL-S
LH & RH 3bCHASE3a

(Sign Font)

\[ \equiv \pi_{\theta=\infty} \land \sigma \land \chi \equiv \land \sigma \land \chi = \equiv \equiv \equiv \]

(SignWrite)

[Diagram of sign writing symbols]
Selected References


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