

Sentence Generation in British Sign Language



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Project goals

1. to develop a computational grammar of BSL based on SFL principles and implemented in KPML
2. to explore linguistic differences between messages in English and BSL
3. to evaluate the tool with respect to the needs of the deaf community

The difference of BSL from English:

- expression of grammatical information is reduced
- word order is different
- more references to spatial aspects of the situation
- greater dialectal variation

Examples

LINGUISTICS LECTURE WHERE BUILDING 'RS' ROOM BANKSITTING 'A'
The linguistics lecture will be held in lecture theatre A in the Roger Stevens Building.

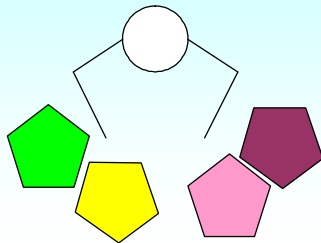
- no predicate (processes of Being&Having are rarely expressed)
- proper names are shortened (since every letter is a separate sign)
- spatiotemporal circumstances are classified with WHERE (WHEN)
- discourse referents are allocated in the signing space

WRITTENWORK YOURS GIVE-ME WHEN FRIDAY POINT MUST
Your work must be handed in by Friday.

- a specific grammar of requests (word order)
- WRITTENWORK in BSL vs. *work* in English
- combined signs (GIVE-ME: the palm moves towards the recipient)
- the deadline is followed by POINT
- etc.

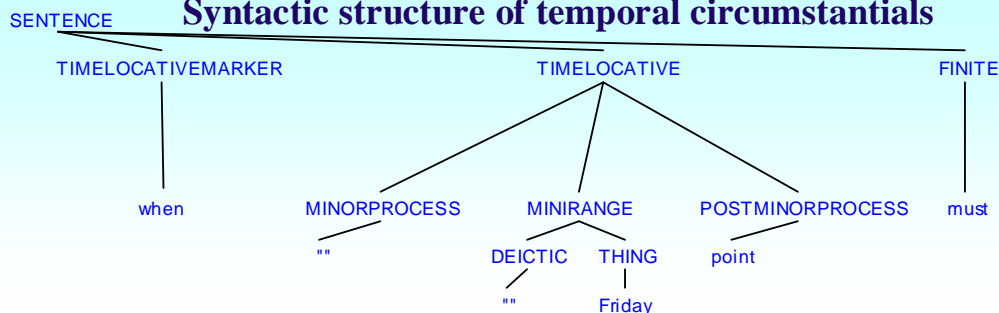
Problems and solutions

Discourse referents



```
(example :name information-1 :targetform "linguistics lecture
where building fs-RS room banksitting fs-A."
:logicalform
(spl1 / OCCUR :speechact assertion
:domain (spl2 / LECTURE
:IDENTIFIABILITY-Q NOTIDENTIFIABLE :ALLOCATION-ID SP-L1
:PROPERTY-ACRRIPTION (spl3 / LINGUISTICS))
:spatial-locating (spl4 / BUILDING :NAME fs-RS
:IDENTIFIABILITY-Q NOTIDENTIFIABLE :ALLOCATION-ID SP-L2
:spatial-locating (spl5 / LECTURE-THEATRE :NAME fs-A
:IDENTIFIABILITY-Q NOTIDENTIFIABLE :ALLOCATION-ID SP-L3))))
```

Syntactic structure of temporal circumstantials



Multiple annotations

```
(annotate-concept ASSIGNMENT :lex-items (:bsl-standard written-work-a written-work-b homework))
(annotate-concept ASSIGNMENT :lex-items (:english work homework assignment essay))
```