Simultaneity vs. Sequentiality:
Developing a transcription system of Hong Kong Sign Language acquisition data

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Introduction

- This presentation discusses the transcription system developed for the ***Hong Kong Sign Language Child Language Corpus***, with a specific focus on the simultaneous constructions involving the two manual articulators.

Hong Kong Sign Language Child Language Corpus

- This corpus includes:
  - Longitudinal and cross-sectional acquisition data
  - Digitized video recordings and transcriptions

- Transcription
  - Uses the ELAN program (Max Planck Institute for Psycholinguistics)
  - Includes 4 tiers:
    - 2 tiers of basic glosses
    - 1 utterance tier
    - 1 morphosyntactic tier
  - Is compatible with the CLAN program (CHILDES)

Simultaneous constructions involving two manual articulators

- ## Simultaneously produced signs:

  e.g.   IX_3   ⇐ a pointing determiner

                    MALE   ⇐ a lexical noun

                    "That man"

- ## Classifier predicates:

  e.g.   CL_sass:cup   ⇐ size and shape specifier

                    CL_sass:table   ⇐ size and shape specifier

                    "a cup on the table" (static event)

Glossing tiers

- **Right-hand vs. Left-hand** (Nyst, 2007; Nilsson, 2007; Vermeerbergen and Demey, 2007)
- **Dominant-hand vs. non-dominant hand** (Leeson & Saeed, 2007)
- **Main gloss vs. non-dominant hand gloss** (MacLaughlin, Neidle and Greenfield, 2000)

- Two glossing tiers in this corpus:
  - Gloss 1 (g1)
  - Gloss 2 (g2)

Glossing tiers

The glossing tiers for the two manual articulators in the literature:

Tiers	Advantages	Problems
Right-hand vs. Left-hand (Nyst, 2007; Nilsson, 2007; Vermeerbergen and Demey, 2007)	- be able to capture two independent morphological units	- to label two-handed lexical signs (i) code the sign twice: misrepresenting the number of morphemes (ii) add a 'both-hand' tier: more difficult viewing
Dominant-hand vs. non-dominant hand (Leeson & Saeed, 2007) Main gloss vs. non-dominant hand gloss (MacLaughlin, Neidle and Greenfield, 2000)	- to represent the phonetic relation of the two hands for: (i) two-handed signs (ii) two-handed classifier constructions consisting of *figure* and *ground* (iii) holding of (part of) a sign in one hand while the other hand continues to sign	- not able to label classifier constructions in which both hands represent figures actively involved in the predicate - not able to label both hands when they represent independent morphemes: e.g. IX_3 and MALE "that man"

Glossing tiers

- ## Gloss 1 (g1)
  - Individual signs (one-handed/two-handed)
  - Classifier predicates signifying the motion or locate property of a single referent
  - Manual gestures
- ## Gloss 2 (g2)
  - For several types of simultaneous constructions to be discussed below

Lexical sign plus gesture

- The lexical sign and the gesture are not related morpho-syntactically
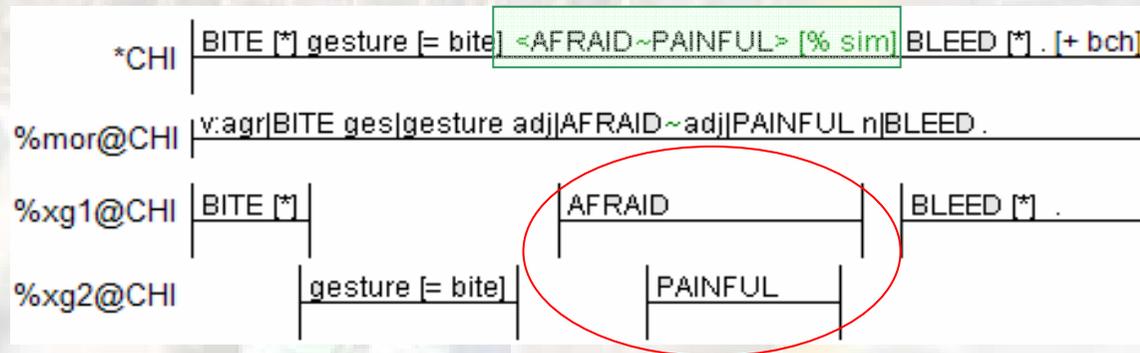
(1) "It is shameful for you to become angry."

Lexical sign plus lexical sign

- ## Coordinated adjectival predicates

(2) "After being bitten (by the dog), (the cat) was frightened, in pain and (its body) bled." (CC4;6.21)

- ## Formation of larger syntactic constituent

(3) "You just begin (to ride a bicycle). The bicycle will move along a zigzag path when you ride it on your own."
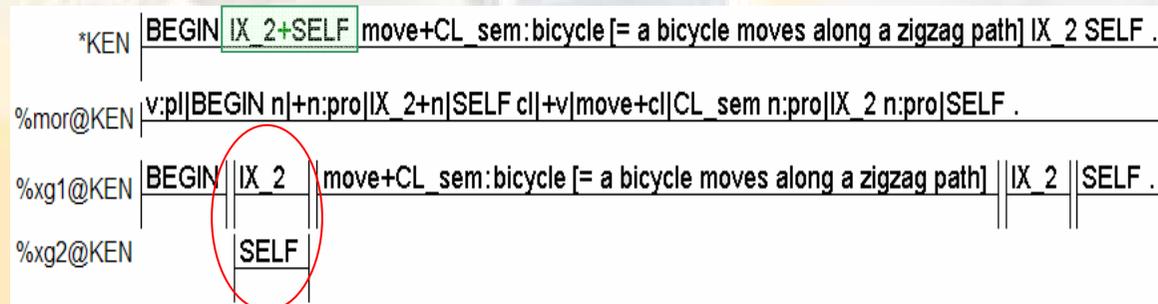
Classifier predicates involving classifiers for two independent referents

- Two classifiers forming a classifier predicate

(4) "Put the tea bag into the cup; pour water into the cup and (the water) changes to brown."

- Two classifier predicates representing two simultaneous events

(5) "Many birds flew together with the plane." (Tang et al. 2007)

Phonetic suspension of a completed sign

- The suspension of the handshape of a completed sign in one hand while the other hand continues to sign.

- The suspension of the completed sign is represented by '>' with a different annotation

(6) "There is (a person wearing) a headscarf who is a witch." (CC4;6.21)

Morphological resumption of a form

- A form may be held in the signing space for prosodic/discourse reasons, but its morphological function may be resumed.

- It combines with another co-occurring sign to form a larger morphosyntactic unit

(7) "The policeman fires the gun and the bullet shoots towards the thief."

Morphological resumption of a form (cont'd)

(8) "Put the tea bag into the cup; pour some water into the cup; the cup fills up with water and the water changes to brown."

Summary

- ## g1/g2 tiers:
  - The angle bracket '>' for phonetic suspension
  - New annotation for the morphological resumption of a form

- ## Utterance tier:
  - 'A+B' for two signs which form a larger syntactic constituent
  - '<A~B> [% sim]' for two morpho-syntactically unrelated signs that are co-articulated
  - '&{l=A B A+C D A+E &}l=A' brackets the suspension of the sign A which has been morphologically resumed

Conclusion

- Advantages of the proposed transcription system:
  - able to draw a distinction between signs with active morphosyntactic content and co-articulated forms that are maintained in space to serve a discourse or prosodic function
  - clearly captures and distinguishes different types of simultaneous constructions produced by the two manual articulators

- Areas for future development:
  - not all simultaneously presented morphemic units are coded explicitly at this stage
  - the non-manual features of the signs has not been coded in the system yet

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