Nonmanual markings for topic constructions in Hong Kong Sign Language

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Previous studies in sign languages

- General observations:
- Topics or topicalized constituents are marked non-manually in sign languages:
- **ASL:**
Previous studies in sign languages

- **Other sign languages:**
  - **SLN (NGT):**
    - Coerts (1992): topicalized elements are marked by brow raise.
  - **ISL:**
    - Rosenstein (2000): topics are followed by blinks, change of eye gaze, change in head or body position
  - **AUSLAN:**
    - Johnston & Schembri (2007): topics are marked by brow raise, head tilt and followed by a pause
  - **BSL:**
    - Sutton-Spence & Woll (1999): topics are marked by widened eyes, head nod and followed by a pause
Previous studies in sign languages

- Some inconsistent findings even within the same sign language in the following three areas:
  1. The kinds of syntactic constituents referred to by the term ‘topic’/’topicalization’
  2. The nonmanual features used to mark these elements
  3. The grammatical functions served by these non-manually marked elements
Table 1: The types of constituents referred to by ‘topic/topicalization’ in different studies

<table>
<thead>
<tr>
<th></th>
<th>Fronted constituents (may have undergone syntactic movement)</th>
<th>Non-fronted sentence-initial constituents (hanging, base-generated topic/adverbials)</th>
<th>Non-fronted, non-sentence-initial constituents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McIntire (1980)</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Baker and Cokely (1980)</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Aarons (1996)</td>
<td>* (marking 1)</td>
<td>*(marking 2 / 3)</td>
<td></td>
</tr>
<tr>
<td>Janzen (1995, 1997, 1999)</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Other SLs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosenstein (2001)(ISL)</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Johnston &amp; Schembri (2007)(Auslan)</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Sutton-Spence &amp; Woll (1999)(BSL)</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Coerts (1992)(SLN)</td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: non-manuals of ‘topic/topicalized’ constituents in different SLs

<table>
<thead>
<tr>
<th></th>
<th>brow raise</th>
<th>backward head tilt</th>
<th>gaze at address</th>
<th>eyes opened wide</th>
<th>lengthening of last sign</th>
<th>followed by pause</th>
<th>head nod</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fischer (1974, 1975)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Followed by an Intonation break.</td>
</tr>
<tr>
<td>Liddell (1977, 1980)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Followed by a sharp change in the facial expression and the head position</td>
</tr>
<tr>
<td>Padden (1987)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valli and Lucas (2000)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McIntire (1980)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Pronominalization, repetition of nominals, head nods, eye gaze</td>
</tr>
<tr>
<td>Baker and Cokely (1980)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>Followed by a sharp change in head position, brows and gaze directions</td>
</tr>
<tr>
<td>Aarons (1996)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Sideward head tilt; Down and forward head movement</td>
</tr>
<tr>
<td>Topic marking 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aarons (1996)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Large sideward of the head</td>
</tr>
<tr>
<td>Topic marking 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aarons (1996)</td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>Head is down at a slightly forward angle and jerked up and down; upper lip is raised; mouth is open widely</td>
</tr>
<tr>
<td>Topic marking 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Janzen (1995, 1997, 1999)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosenstein (2001) (ISL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optionally followed by a blink, change of eye gaze, head and/or body position</td>
</tr>
<tr>
<td>Johnston &amp; Schembri (2007) (Austlan)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A change in non Manuals in the comment part</td>
</tr>
<tr>
<td>Sutton-Spence &amp; Woll (1999) (BSL)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coe (1992) (SLN)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3: what are the functions served by the constituents marked by the non-manuals?

<table>
<thead>
<tr>
<th></th>
<th>focus /emphasis</th>
<th>discourse-old information</th>
<th>what the sentence is about</th>
<th>setting the scene</th>
<th>important or prominent information</th>
<th>discourse-new information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liddell (1977), Coulter (1979), Padden (1987), Isenhath 1990</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liddell (1980), Janzen (1995, 1997, 1999)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McIntire (1980)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Baker and Cokely (1980)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnston and Schembri (2007)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sutton-Spence &amp; Woll (1999)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Rosenstein (2001)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Coerts (1992)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How to interpret the inconsistent findings in previous studies in SLs?

• Terminological/definitional confusions in both spoken and signed language literature:
  • Whether topic also encodes discourse-new information
  • Whether ‘topicalization’ is a fronting process that marks a constituent as ‘the topic’ or ‘focus’ (i.e. focalization); other functions?
  • Whether topic must come first in a sentence

• Possible that certain non-manuals are more central than others → brow raise as most frequently reported
How to interpret the inconsistent findings in previous studies in SLs?

- Possible that certain non-manuals, such as brow raise, can indeed serve a wide range of functions in the information structure in sign languages.

- Findings in BSL and ISL → possibility of cross-linguistic variations.
Purpose of the current study

• Find out
  1. Do topic constructions exist in the spontaneous data of HKSL? If so, what kinds of ‘topic’ are they?
  2. Are these topic constructions marked consistently by non-manual features?
Types of constructions to be investigated in this study

Three major types of constructions

- ‘Aboutness’ topics
- ‘Scene-setting’ topics
- Fronted grammatical objects
‘Aboutness’ topics

(1) Aboutness topic:
• Reinhart (1981) and Gundel (1985, 1988a, 1988b)
• Defined in terms of pragmatic aboutness: represent *what the sentence is about*.
• Represent *familiar* and *identifiable* information
• Can be *shifted* or *continued*
• Not necessarily sentence-initial
‘Aboutness’ topics

• Aboutness topics:
  • Most often realized as *grammatical subject* (default)
  • May also be realized as
    • *In-situ grammatical object*
    • clause-external, sentence-initial constituents:
      • *hanging topic*
      • *left dislocation*
      • *fronted grammatical object*
‘Aboutness’ topics

- **Grammatical subject and in-situ grammatical object:**
  - *Felix* is an obnoxious guy. Even Matilda can’t stand *him*. (Reinhart 1981:63)(subject and object)

- **Hanging topic:**
  - *My work*, I’m going crazy. (Bland, 1980)

- **Left dislocation:**
  - *Marcos*, he resigned. (Gundel 1988:210 universal paper)

- **Fronted grammatical object:**
  - *Him* I can’t understand (Gundel 1988)
Scene-setting topics

(2) Scene-setting topic (Chafe, 1976)

- provides a spatial, temporal or individual framework within which the main predication holds.
- Mostly clause-external
- Include:
  
  (a) Chinese-styled topics
  
  _Shang ci jiaoyou, haizimen dou lei ji le_

  ‘On the last outing, the children were all exhausted.’

  (Chen 1996:398)
‘Scene-setting’ topics

(b) Sentence-initial locative/temporal adverbiaal phrases:
   • *In meinem Traum* war Peter ein Krokodil
     “*In my dream,* Peter was a crocodile.”
     (Jacobs 2001:657)

(c) Sentence-initial locative/temporal adverbiaal clauses:
   • (John was very busy that morning.) *After the children went to school,*
     he had to clean the house and go shopping for the party. (Lambrecht 1994:121)
(3) Fronted grammatical objects

• Fronted grammatical objects that do not code the aboutness topic
• What discourse functions do they serve?
• Are these functions marked non-manually?
Methodology: data collection

- Spontaneous discourse data:
  - 4 native signers of HKSL, all in their twenties

- Conversation data:
  - 1 hr 56 mins of paired unstructured conversations

- Monologue data:
  - 39 mins of picture-elicited narratives
  - 51 mins of answers to questions
Methodology: Data transcription and coding

- Data transcriptions:
  - First by author of this study
  - Confirmed by the native informants
  - Sentence-delimitation by native informants

- Identification of different types of topics (Appendix)
Types of non-manuals coded in the data

1. Brow raise
2. Specific head position
3. Indicators of potential intonational break:
   • Followed by a blink
   • Followed by a pause (0.3 sec or above)
   • The last sign of the target constituent is held for 3 frames (0.12 sec) or longer upon the completion of movement.
Findings: aboutness topics
Findings: Aboutness topics

(1) Aboutness topics:
• 2346 instances of overt ‘aboutness’ topics
• realized syntactically as
  • grammatical subjects (2142, 81%)
  • in-situ grammatical objects (40, 1.7%)
  • hanging topic (104, 4.4%)
  • left dislocation (19, 0.8%)
  • Sentence-initial grammatical objects (41, 1.7%)
    • OSV (24, 1%)
• Hanging topics, left dislocation and O in OSV → clause-external syntactic position → more likely to be intonationally separated from the rest of the sentence
Table 4: non-manual features associated with ‘aboutness’ topics

<table>
<thead>
<tr>
<th>Types of non-manuals</th>
<th>Hanging topics (104)</th>
<th>Left dislocated constituents (19)</th>
<th>Fronted objects as topics (24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brow raise</td>
<td>4 (3.9%)</td>
<td>1 (5.3%)</td>
<td>3 (12.5%)</td>
</tr>
<tr>
<td>Specific head position</td>
<td>9 (8.7%)</td>
<td>1 (5.3%)</td>
<td>6 (25%)</td>
</tr>
<tr>
<td>Intonational break following the topic constituent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Followed by a blink</td>
<td>19 (18.3%)</td>
<td>2 (10.5%)</td>
<td>10 (41.7%)</td>
</tr>
<tr>
<td>Noticeable pause (0.3 sec or longer)</td>
<td>14 (13.5%) (from 0.3 to 1.1 sec)</td>
<td>4 (21.1%) (from 0.3 to 0.62 sec)</td>
<td>3 (12.5%) (from 0.3 to 0.94 sec)</td>
</tr>
<tr>
<td>Lengthening of the last sign (3 video frame/0.12 sec or longer)</td>
<td>16 (15.4%) (3 to 8 frames, 0.12 to 0.32 sec)</td>
<td>4 (21.1%) (3 to 9 frames, 0.12 to 0.36 sec)</td>
<td>3 (12.5%) (4 to 5 frames, 0.16 to 0.2 sec)</td>
</tr>
</tbody>
</table>

- % of brow raise/specific head position: very low
- % of features signaling an intonational break: very low
Findings: Aboutness topics

Example 1 (hanging topic):
IX-deaf-allowance  DEAF  DEAF-ALLOWANCE  IX-deaf-allowance
MONEY (hesitation) MONEY  EVERY MONTH  HAVE
‘About the deaf allowance, (I) get the money every month.’

• → last sign of hanging topic being held for 3 frames

Example 2 (Left dislocation):
IX-kenny  ALL (SAY)  IX-kenny  STRONG.
‘He (kenny), all of them (say) he is strong.’

• → No specific non-manual marking
Findings: Aboutness topics

Example 3 (fronted topic object):

INTERPRETER\^SIGN-LANGUAGE  GOVERNMENT
PAY-THEM  NOT-HAVE
‘The SL interpreters, the government does not pay (them).’

• ➔ no particular non-manuals
Findings: Aboutness topics

• A small % (i.e. 8 tokens) of aboutness topic: marked by brow raise.

• How can we explain these data?

• Two possible types:
  • When the NP consists of several signs and the referent represents identifiable information but not fully activated information
  • Involve contrastive contexts
Findings: Scene-setting topics
Findings: scene-setting topics

- Four types of potential scene-setting topics are identified in the data:

1. **Conventional temporal adverbials**
   - PAST, NOW, MONDAY, MORNING

2. **NPs that set up temporal domains**
   - SECONDARY-ONE → when I was studying secondary one (=grade 7)
   - FIRST-ROUND → in the first round of the competition
   - ONE-SEMESTER → in one semester
Findings: scene-setting topics

3. **Subordinate clauses that set up a temporal domain**
   - *GET-MARRIED  FINISH, MINDLESS DON’T*
   - ‘After getting married, (one) shouldn’t be lousy (about appearance)’

4. **Locative expression**
   - *HILL IX-up  HAVE  THREE*
   - *On the hill  were three (persons)”*
<table>
<thead>
<tr>
<th>Types of non-manuals</th>
<th>Conventional temp adverbials (116)</th>
<th>NPs that set up temporal domains (18)</th>
<th>Scene-setting subordinate clauses (73)</th>
<th>Locative expressions (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial (82)</td>
<td>Non-Initial (34)</td>
<td>subtotal</td>
<td>Initial (15)</td>
</tr>
<tr>
<td>Brow raise</td>
<td>32</td>
<td>8</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>Specific head position</td>
<td>27</td>
<td>9</td>
<td>36</td>
<td>8</td>
</tr>
<tr>
<td>Intonation break</td>
<td>31</td>
<td>3</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>Pause</td>
<td>11</td>
<td>0</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Hold</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: The table provides percentages for each type of non-manual, indicating the frequency of occurrence.
Table 6: types of head positions with scene-setting topics

<table>
<thead>
<tr>
<th>Types of head positions accompanying scene-setting topics</th>
<th>No. of tokens</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Head tilting sideward</td>
<td>1</td>
<td>1.0%</td>
</tr>
<tr>
<td>2. Face turning sideward</td>
<td>2</td>
<td>1.9%</td>
</tr>
<tr>
<td>3. A neutral head position (which is changed after the topic)</td>
<td>4</td>
<td>3.8%</td>
</tr>
<tr>
<td>4. Head nod</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- accompanies the scene-setting topic if the latter is short.</td>
<td>6</td>
<td>5.8%</td>
</tr>
<tr>
<td>- Occurs towards the end of the scene-setting topic if the latter consists of several words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Head tilting backward</td>
<td>9</td>
<td>8.7%</td>
</tr>
<tr>
<td>6. Head tilting forward / head + body leaning forward</td>
<td>82</td>
<td>78.8%</td>
</tr>
</tbody>
</table>
• Primary non-manual markers of scene-setting topics:
  • Brow raise
  • Specific head positions

Table 7: occurrence of brow raise and head positions with scene-setting topics

<table>
<thead>
<tr>
<th>Types of non-manuals</th>
<th>Conventional temporal adverbials (116)</th>
<th>NPs that set up temporal domains (18)</th>
<th>Scene-setting subordinate clauses (73)</th>
<th>Locative expressions (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Specific head position</td>
<td>10 (8.6%)</td>
<td>0 (0%)</td>
<td>7 (9.6%)</td>
<td>2 (20%)</td>
</tr>
<tr>
<td>♦ NO brow raise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Specific head position</td>
<td>26 (22.4%)</td>
<td>11 (61.1%)</td>
<td>45 (61.6%)</td>
<td>8 (80%)</td>
</tr>
<tr>
<td>♦ brow raise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ NO specific head position</td>
<td>16 (13.8%)</td>
<td>3 (16.7%)</td>
<td>12 (16.4%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>♦ brow raise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>subtotal</td>
<td>52 (44.8%)</td>
<td>14 (77.8%)</td>
<td>64 (87.7%)</td>
<td>10 (100%)</td>
</tr>
<tr>
<td>♦ NO specific head position</td>
<td>64 (55.2%)</td>
<td>4 (22%)</td>
<td>9 (12.3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>♦ NO brow raise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Findings: scene-setting topics

Example 4 (Conventional temporal adverbial):
**NEXT SATURDAY** IX-group-B OTHER B IX-group-B
‘Next Saturday, group B (had the competitions).’

- forward head tilt + brow raise

Example 5 (NP that sets up a temporal domain):
**SECONDARY-TWO**, START PLAY-BASKETBALL, HAVE-COMPETITION, FARE-BETTER THAN
‘At secondary two (=grade8), I started playing basketball and had competitions; I was better than (other senior schoolmates).’

- forward tilt + brow raise
Findings: scene-setting topics

Example 6 (Scene-setting subordinate clause):

IX-1 SECONDARY-FIVE GRADUATE IX-1 FINISH, gesture CL-a-big-pile-of-books BOOK gesture DICTIONARY MANY ENGLISH DICTIONARY DICTIONARY gesture IX-1 gesture CL-a-big-pile-of-books gesture ‘After I graduated from secondary-five (=grade 11), I had a big pile of used books such as English books and dictionary; I didn’t know what to do with them.’

• ➔ backward head tilt + brow raise

Example 7 (locative):

IX-here HAVE TWO, FATHER IX-father OLD YOUNG NOT OLD, IX-boy BOY ‘In this place, there are two persons – a father, who is quite old, not young, and a boy.’

• ➔ forward head tilt + brow raise
Findings: scene-setting topics

- Scene-setting topics in HKSL are primarily marked with brow raise and specific head positions.

- Why some temporal adverbials are not marked with these non-manuals?
  - Not all of them serve a scene-setting function.

- English (Le Draoulec & Péry-Woodley 2001)
  - sentence-initial adverbials → scene-setting role outside the proposition
  - sentence-final adverbials → just modifying the proposition.

- HKSL: this functional difference hinges upon the presence of non-manuals.
Findings: Scene-setting topics

- Scene-setting topics, whether they are sentence-initial or not, can be marked by brow raise and specific head positions.

- These two non-manuals
  - not tied to a particular syntactic position
  - pragmatic function marker
Fronted non-topic grammatical objects
Findings: fronted non-topic grammatical objects

- In HKSL, a grammatical object may be fronted if it is the ‘aboutness’ topic → no specific non-manual marking

- 59 instances of fronted non-topic grammatical objects → 4 major types
Findings: fronted non-topic grammatical objects

Table 8: types of fronted non-topic grammatical objects

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>it is salient in discourse and is spatially modified (i.e. pronominal/determiner)</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>it is contrastive</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>it is a part of the proposition being negated in the sentence</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>the sentence involves transitive plain verbs that favour verb-final constructions in general, e.g. DISLIKE, DETEST, BE-INTERESTED-IN, HAVE-POWER-IN</td>
<td>44</td>
</tr>
</tbody>
</table>
Table 9: non-manuals with fronted non-topic objects

<table>
<thead>
<tr>
<th>Fronted non-topic grammaticalal objects: 59</th>
<th>Salient referents with spatial markings</th>
<th>Involve plain verbs that favour verb-final constructions</th>
<th>Involve contrastive context</th>
<th>Involve negation/negative modal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>44</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Brow raise</td>
<td>0</td>
<td>13 (29.5%)</td>
<td>0 (0%)</td>
<td>2 (50%)</td>
</tr>
<tr>
<td>Specific head position</td>
<td>0</td>
<td>15 (34.1%)</td>
<td>4 (66.7%)</td>
<td>2 (50%)</td>
</tr>
<tr>
<td>Intonation break following the fronted non-topic object</td>
<td>Blink</td>
<td>2 (40%)</td>
<td>14 (31.8%)</td>
<td>1 (16.7%)</td>
</tr>
<tr>
<td></td>
<td>Pause</td>
<td>1 (20%)</td>
<td>4 (9.1%)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>hold</td>
<td>2 (40%)</td>
<td>1 (2.3%)</td>
<td>0</td>
</tr>
</tbody>
</table>
Findings: Fronted non-topic grammatical objects

• Highest % of occurrence:
  • Specific head positions that accompany contrastive fronted objects
  • Blinks following a fronted constituent

• Brow raise only in:
  • negated sentences
  • Sentences with verbs that favour verb-final word order → all 13 tokens of such verbs are negative in meaning, e.g. DISLIKE, DETEST, BE-IGNORANT, etc
Findings: Fronted non-topic grammatical objects

• Similarly, specific head positions that mark fronted objects in verb-final transitive constructions → all 15 tokens involve verbs negative in meaning.

• This skewed pattern:
  • Brow raise and specific head positions → do not mark fronted object constituents per se.
  • Serve the purpose of contrast/focus.
Findings: Fronted non-topic grammatical objects

Example 8 (contrastive context):
**BASKETBALL**, IX-1 ENROLL-IN STILL
‘The basketball (competition), I still enroll in (it)’

• → no non-manuals

Example 9 (negative verb that favour verb final construction):
**LOUSY** IX-1 DISLIKE
‘Lousy (handwriting), I don’t like (it)’.

• → barely noticeable forward head tilt
General Discussion

• Aboutness topics: no specific non-manual features.
• Scene-setting topics: primarily marked by brow raise and/or specific head position, most likely forward tilt/lean.
• Fronted non-topic grammatical objects: no nonmanual markers;
  • but brow raise and specific head positions can be seen if
    • the sentence is negated or involve a verb with a negative meaning;
    • the fronted constituent is contrastive.
• Brow raise and specific head positions in HKSL:
  • Mark scene-setting topics
  • Mark contrast/focus??
• Negated sentences marked by brow raise and head tilt?
• Preliminary supportive evidence:
  • 23 instances of NOT in 40 minutes of free conversation by 4 native signers
    • 19 out of 23: brow raise (83%)
    • 14 out of 23: forward head tilt/forward head+ body lean (61%)
• In ASL and NGT, body leans may signal focus/contrast (Wilbur and Patschke 1998, Kooij, Crasborn and Emmerik, 2006)
• Eyebrow raising in spoken English dialogues → aligned with pitch accents that may signal emphasis (Flecha-Garcia 2004)

Further research in HKSL NEEDED!
REFERENCES


Appendix: Data transcription and coding

- Reinhart’s procedure of identifying aboutness topics:
  - (I) First, select an NP whose referent is already in the context set unless:
    - (a) the sentence is linked to the previous sentence by a semantic connector that indicates a turn in the discourse content.
    - e.g. ...(A did so and so). At the same time, ...(B did so and so)
    - (b) the sentence starts a new segment of the context set. (i.e. an entirely new discourse topic irrelevant to the previous one)
Appendix: Data transcription and coding

- In both situations (a) and (b): the topic → any definite NP which represents an entity familiar, as well as identifiable to the addressee.

- The selected NP represents a shifted topic

- This NP does not need to be referentially linked to the previous discourse.

- The above procedure (Reinhart 1981) is used to identify aboutness topics in the data.
Steps of identifying ‘aboutness’ topics and ‘scene-setting’ topics in the HKSL data:

In a new segment of discourse,

- if there is a clause external definite NP that represents what the that sentence and what the next sentence is about → selected as the aboutness topic
- If there is no clause external NP, and if the subject is definite → the subject is coded as aboutness topic
- If the sentence introduces a new referent into the discourse → presentational sentence → no aboutness topic.
Appendix: Data transcription and coding

- For other non-discourse-initial sentences:
  - Aboutness topic $\rightarrow$ any definite NP referentially linked to the previous sentence (continued topic)
  - If both subjects and objects are definite NPs linked to the previous discourse $\rightarrow$ subject as the aboutness topic
  - A definite object can only be an aboutness topic if the subject is indefinite.

- Aboutness topics and be null or overt, shifted or continued
Appendix: Data transcription and coding

• Sentence-initial temporal phrases, locative adverbials and subordinate clauses → scene-setting topics unless they also represent what the sentence is about.

• Certain types of sentences are assumed to be topic-less: identificational, presentational and event-reporting sentences.

• Fronted grammatical objects (i.e. OSV) which are not the aboutness topics are coded separately
  • OV clauses with a null subject are excluded (as SOV is also a permissible order in HKSL)
  • The verbs in these OSV sentences must also allow SVO orders (supported by evidence of SVO of the same verbs in the same database)