On the acquisition of classifiers in 5-6 year old Deaf children

Utrecht University of Applied Sciences, Institute for Sign, Linguistics & Deaf Studies, Lectoraat Dovenstudies

1. Background

- A classifier is a handshake (sometimes combined with a specific orientation) that, when combined with the other parameters of movement and location, forms a ‘verb of motion or location’. The classifier hand in this type of verb is a bound morpheme that reflects a form or meaning characteristic of the nominal referent. (Zwitserlood, 2012)
- Studies on the acquisition of classifiers by deaf children are limited and focus primarily on Deaf children of Deaf adults (DOH).
- This research shows that classifiers emerge at 3 years of age and approach an almost adult level at the age of 9 (Beal-Alvarez & Easterbrooks, 2013; Baker, Van den Bogaerde & Woll, 2005).
- More than 90% of deaf children are born to non-signing hearing parents (DOH) (Mayberry 2007).
- Previous research has shown that (delayed) age of acquisition of a sign language has an effect on (native-like) mastery of several linguistic components (Mayberry & Eichen, 1991; Boudreault & Mayberry, 2006).
- Therefore it would be interesting to investigate how DOH children acquire classifiers.

RQ: To what extent do 5-6 year old DOH children, who learn Sign Language of the Netherlands, produce classifiers in narratives?

2. Participant Overview

- All children were recruited via a school for the Deaf in the Netherlands.
- All children attended grade 2.

P1.
- Gender: Girl
- Age at testing: 6;8 years
- Age at Diagnosis: 22 months (L 70-80dB – R 65-70dB)
- Language at Home: Sign Supported Dutch
- NGT experience: 2,8 years
- Language at school: NGT

P2.
- Gender: Girl
- Age at testing: 5;10 years
- Age at Diagnosis: from birth (syndrome) (L110dB – R 70 dB)
- Language at Home: Dutch/ Sign Supported Dutch
- NGT experience: 3,10 years
- Language at school: Sign Supported Dutch/ NGT

P3.
- Gender: Boy
- Age at testing: 6;4 years
- Age at Diagnosis: 28 months (L 100 dB)
- Language at Home: Dutch/ Sign Supported Dutch
- NGT experience: 3,10 years
- Language at school: Sign Supported Dutch/ NGT

P4.
- Gender: Boy
- Age at testing: 6;1 years
- Age at Diagnosis: 28 months (L 40-70dB – R 40-60dB)
- Language at Home: Dutch
- NGT experience: 3,10 years
- Language at school: Dutch/ Sign supported Dutch

3. Procedure

- Elicitation of speech by means of the Frog story (Frog, where are you?) (Mayer, 2003)
- Videotaped conversations. Video recorder used was Canon IXUS 1100 HS. Five minute start up.
- Setup as depicted in Figure 1

4. Results

Classifiers acquisition

<table>
<thead>
<tr>
<th>Child</th>
<th>No. EC</th>
<th>No. HC</th>
<th>Total CL</th>
<th>Recording time</th>
</tr>
</thead>
<tbody>
<tr>
<td>p1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>12m16s</td>
</tr>
<tr>
<td>p2</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>12m30s</td>
</tr>
<tr>
<td>p3</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>16m32s</td>
</tr>
<tr>
<td>p4</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>8m36s</td>
</tr>
</tbody>
</table>

| Percentage | 91% | 9% | 100% |

Accuracy analysis

<table>
<thead>
<tr>
<th>Child</th>
<th>EC correct</th>
<th>EC incorrect</th>
<th>HC correct</th>
<th>HC incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>p1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>p2</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>p3</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>p4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total | 18         | 2            | 2         | 0            |

| Percentage | 90% | 10% | 100.0% | 0.0% |

5. Conclusion

- DOH children produce classifiers after three years of exposure to sign language.
- Errors in classifier production involve errors in handshake selection.
- An open question is to what extent the classifiers are incorporated in an (conventionalized) adult system.
- The first production of classifiers might emerge from gestural representation (Slobin et al., 2003), which shows more variable production as compared to a conventionalized system (Cormier et al. 2012).