Backchannel signals in signers’ conversations

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Interaction = a system of turn-taking

• Start a conversation
• Turn change; break, attempt, give turn, hesitation pause
• Overlaps
• Backchannel signals

Interaction and turn-taking

Data

• The Swedish Sign Language Corpus (2009-2011) consists of recordings of 40 informants, male and female, ranging from 20 to 82 years of age and from different regions in Sweden.
• The material consists of approx 40 hours, of which 50 minutes of informal signed dialogue has been annotated with ELAN so far.

Non-manual backchannel signals

• High frequency, 80 % non-manual
• Eg. nodding, head-shaking, smiling, change of posture, nose wrinkles, widened eyes
• No detailed study of non-manual signals in this presentation
• Average duration of dialogue 4.15 minutes for these 16 informants

<table>
<thead>
<tr>
<th>Signer</th>
<th>Non-manual</th>
<th>Manual</th>
<th>Total</th>
<th>Per cent manual</th>
<th>Duration of film</th>
</tr>
</thead>
<tbody>
<tr>
<td>S001</td>
<td>16</td>
<td>21</td>
<td>37</td>
<td>57%</td>
<td>04:37</td>
</tr>
<tr>
<td>S002</td>
<td>43</td>
<td>18</td>
<td>61</td>
<td>27%</td>
<td>04:37</td>
</tr>
<tr>
<td>S003</td>
<td>16</td>
<td>2</td>
<td>18</td>
<td>11%</td>
<td>03:25</td>
</tr>
<tr>
<td>S004</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>0%</td>
<td>03:25</td>
</tr>
<tr>
<td>S005</td>
<td>16</td>
<td>5</td>
<td>21</td>
<td>11%</td>
<td>05:24</td>
</tr>
<tr>
<td>S006</td>
<td>54</td>
<td>14</td>
<td>68</td>
<td>21%</td>
<td>05:24</td>
</tr>
<tr>
<td>S007</td>
<td>39</td>
<td>5</td>
<td>44</td>
<td>11%</td>
<td>05:24</td>
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<tr>
<td>S008</td>
<td>15</td>
<td>4</td>
<td>19</td>
<td>11%</td>
<td>01:45</td>
</tr>
<tr>
<td>S009</td>
<td>8</td>
<td>5</td>
<td>13</td>
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<td>01:45</td>
</tr>
<tr>
<td>S010</td>
<td>65</td>
<td>31</td>
<td>96</td>
<td>32%</td>
<td>06:41</td>
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<tr>
<td>S011</td>
<td>27</td>
<td>10</td>
<td>37</td>
<td>27%</td>
<td>06:41</td>
</tr>
<tr>
<td>S012</td>
<td>28</td>
<td>2</td>
<td>30</td>
<td>7%</td>
<td>02:47</td>
</tr>
<tr>
<td>S013</td>
<td>14</td>
<td>4</td>
<td>18</td>
<td>22%</td>
<td>02:47</td>
</tr>
<tr>
<td>S014</td>
<td>19</td>
<td>1</td>
<td>20</td>
<td>5%</td>
<td>04:06</td>
</tr>
<tr>
<td>S015</td>
<td>27</td>
<td>1</td>
<td>28</td>
<td>5%</td>
<td>04:06</td>
</tr>
<tr>
<td>S016</td>
<td>68</td>
<td>7</td>
<td>75</td>
<td>9%</td>
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</tr>
<tr>
<td>S017</td>
<td>58</td>
<td>2</td>
<td>60</td>
<td>3%</td>
<td>07:53</td>
</tr>
</tbody>
</table>

493 | 127 | 620 | 20% | 4:15

Tokens for non-manual and manual backchannel signals

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Manual backchannel signals (of 16 signers)

A list of the manual backchannel signals

- YES
- PU
- Lifts hand/s (incl. finger, thumb)
- Point
- 1-3 signs
- Simultaneous support

1 sign

- YES(fs)
- YES(fs; repeated)
- EXACTLY(1h)
- NICE
- TRAINEE-JOB
- REALLY
- AGREE
- ALWAYS
- OF-COURSE
- ACTIVITIES
- TELEPHONE
- TYPE-WITH-1-FINGER
- OH(1h)
- FUN
- LEAVE-IT
- BE^point
- SAME

2 signs

- WOW LONG-TIME
- YES(fs; repeated) BORING
- YES(fs; repeated) OF-COURSEx2
- AGREE PU(1h)
- pm-TYPE-WITH-SHIELD TYPE-WITH-BOTH-HANDS
- CELL-PHONE YES(fs; repeated)
- STRING TIE-KNOT
- EXACTLY(2h) SAME
- AFTERWARDS AFTERWARDS
- PU(2h) DISAPPEAR
- FLASHING-LIGHT REALLY

3 signs

- FRIENDSHIP SOCIAL CONTACT
- OTHER OWN PREMISES
- BETTER REALLY BETTER

Some of the signs are repetitions of the signer’s utterance.

“Repeating words and syntactic constructions is a common occurrence in conversations” (Anward 2000, in Bockgård 2007:144; our translation)
Other; combinations of 2 categories

- gesture EXACTLY(1h)
- AGREE PU(2h)
- YES(fs; repeated) POINT
- YES(fs; repeated) AGREE
- SEARCH-FOR POINT
- PU(1h) YES(fs; repeated)

Manual backchannel signals

<table>
<thead>
<tr>
<th>Manual backchannel signals in lap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occur fairly low, sometimes even outside of the “normal” signing space</td>
</tr>
<tr>
<td>Hand, finger or forearm in contact with lap</td>
</tr>
<tr>
<td>Lifts hand/s quite frequent, almost always in lap</td>
</tr>
<tr>
<td>Often YES, but also 1 (other) sign</td>
</tr>
</tbody>
</table>

Manual backchannel signals

YES

Lifts hand/s (incl. finger, thumb)

PU 1h/2h

Manual backchannel signals

- YES (fs) 34
- 1 sign 28
- Lifts hand/s 22
- PU 2h 9
- 2 signs 7
- Other 7
- PU 1h 5
- YES (fs) + 1 sign 5
- 3 signs Simultaneous support 4
- Point 2
- Total 127
Lifts hand/s in lap  YES in lap

A myth?
In this material, younger (20-39) signers tend to produce fewer backchannel signals and less overlapping signs and backchannel signals than do older (40-79) signers.

Conclusion
• In the material analyzed, old signers do not tend to produce fewer backchannel signals and less overlapping signs and backchannel signals than do younger signers.
• Large individual variation and also an influence from prosodic features of signers' utterances.
• Backchannel signals sometimes occur fairly low, sometimes even outside of the "normal" signing space, in contact with lap.
• Possibly also posture (and pregnancy) affects
• Next: analyze relation to turns and phrases as well as timing and degree of friendship