Variation in NGT mouthings
Code-mixing or not?

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Background
In Sign Language of the Netherlands (NGT), mouth actions are ubiquitous.
- Mouth gestures: part of the language
- Mouthings: influence from the surrounding spoken language
The linguistic status of mouthings remains unclear. The possibility of code-mixing has to be considered.

Questions
- Is there a specification in the NGT-lexicon for mouthings?
- To what extent can mouthings in NGT considered to be a form of code-mixing with Dutch?

Hypotheses
Consistency in the combination of mouthing and manual sign suggests lexical specification (as borrowings from the spoken language), whereas variation in mouthings would point to code-mixing by the user (living in a hearing world).

Results
In general: consistency in use of mouthings
- 40% of signs use the same mouthing for over 92% of its tokens
- 60% of signs use the same mouthing for over 75% of its tokens
- Not much variation in use of Dutch lexical items; the little variation found was usually in same semantic field (e.g. with GROUP: mouthing group, variant class)
- Wide variety in proportion of mouth gestures

Examples
<table>
<thead>
<tr>
<th>gloss</th>
<th>standard mouthing</th>
<th>mouthing variant</th>
<th>mouth gesture</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL</td>
<td>school</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IN-THE-PAST</td>
<td>earlier</td>
<td>-</td>
<td>pfff</td>
</tr>
<tr>
<td>SIGN</td>
<td>sign</td>
<td>interpreter</td>
<td>pfff</td>
</tr>
<tr>
<td>GROUP</td>
<td>group</td>
<td>class</td>
<td>(various)</td>
</tr>
</tbody>
</table>

Note: for the purpose of presenting this poster, English translations of Dutch words and glosses were used.

The Corpus NGT and its annotation
- 92 signers, 72 hours, 2375 clips
- 20 highly frequent signs in the corpus were selected for mouth annotation, with focus on content signs
- 954 tokens of these 20 types were annotated for mouth actions
- Focus on what is perceived on the mouth (Mouth tier)
- Screenshot (left): Elan annotation software with separate tiers (per signer) for Left & Right Hand, Visible Mouthing, Mouthing Citation Form (intended meaning), Mouth Action Type (i.e. mouthing or mouth gesture)

Conclusion
- For certain signs specific mouthings appear to be compulsory, suggesting lexicalisation of mouthings
- For other signs there is the choice between mouthing and mouth gesture, suggesting code-mixing
- Low rate of variation within mouthings, suggesting constraints on code-mixing

Thank you: Inge Aferink, Saskia Aukema, Orine Croeborn, Micha Hübbsch, Anna Sáfár. Contact author: rbank@let.ru.nl