Sources of Variation in Sign-Spatiality: Sampling the Kata Kolok corpus

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My background

Multiple visits to Desa Kolok (Bali) accumulating to 13 months of immersion and community-based research activities.

Establishment of a deaf unit within the village's elementary school.

Creation of a digital archive - corpus - of Kata Kolok.

Aim of this presentation

Corpora as a tool for sign language documentation and description

Sampling rural signing varieties

Identifying sources of variation between urban and rural sign languages

Presentation outline

Description of the sociolinguistic dynamics in Desa Kolok.

Unique features of Kata Kolok in the domain of sign-spatiality in particular, and hypotheses regarding its sociolinguistic origins.

How sampling specific types of data may help us assess these hypotheses.

Preliminary support for the context-dependency hypothesis.

Desa Kolok: a Deaf village

2.2% congenital deafness versus 0.01% in the United States

+ 5 generations of native signers

46 Deaf signers - 1,200 hearing signers
Domains of sign language use

- Education
- Liturgy
- Professional
- Social

Hearing sign language users
(Marsaja 2008)

Hearing signers make up the vast majority of sign language users within the community.

Sign fluency in Kata Kolok
(Marsaja 2008)

More than half of Kata Kolok users is non-fluent. 10% of the speech community is native user.

Bimodal bilingualism in Kata Kolok
(Marsaja 2008)

Two thirds of its native users are balanced bimodal bilinguals.

Endangerment of Kata Kolok

Increased contact with Indonesian signing varieties

Changing marital patterns due to socio-economic change
Documentation of Kata Kolok

A corpus of Kata Kolok
(metadata browsable at http://corpus1.mpi.nl/ds/imdi_browser/)

- informal conversational data in various participant configurations
- culturally entrenched narratives
- child-directed signing
- targetted data collection with elicitation tools
- sign-switching/sign-mixing

Description of Kata Kolok

Kata Kolok - being a sign language isolate - contributes uniquely to our understanding of the cross-linguistic diversity among sign languages.

This presentation focusses on the use of sign-spatiality in the domain of third person reference.

Constituent orders

<table>
<thead>
<tr>
<th></th>
<th>KATA KOLOK</th>
<th>BALINESE (Arka 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODIFIER-NOUN</td>
<td>Modifier-Noun</td>
<td>Noun-Modifier</td>
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<td>Noun-Modifier</td>
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<td>Numerals-Numerals</td>
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<td>Predicate-Negation</td>
<td>Negation-Predicate</td>
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<tr>
<td>CORE</td>
<td>SVO</td>
<td>SVO</td>
</tr>
<tr>
<td>ARGUMENTS</td>
<td>SOV</td>
<td>OVS</td>
</tr>
</tbody>
</table>

Localisation: anaphoric pointing in the signing space

Functions of localisation:
- discourse coherence
- spatial verb inflection

Functions of localisation spatial verb inflection

Jordanian Sign Language, Hendriks 2008
Functions of localisation
spatial verb inflection

A Universal in
Sign Languages?
(See for instance Aronoff et al., 2005; Liddell, 2003; Meier, 1990; Talmy, 2003; Woll, 2003)

Kata Kolok:
No localisation
1:19 hours annotated spontaneous data
4 dialogues, 2 monologues
7 deaf signers
1,092 pointing signs

Kata Kolok:
deictic pointing at geographic locations
(Zeshan 2006; Marsaja 2008; Perniss & Zeshan 2008)

List buoys: anaphoric pointing to the
fingertips (3rd person)

List buoys in a family narrative
‘The first child was me. At the time when I was
born, my parents were inexperienced at child
rearing. The second one, SM, went well. Two
months passed and they took care of the baby
well. The second child grew. The third, BD, died.
The fourth, a girl, died. The fifth is SK. He would
not accept breast milk.’
Kata Kolok
Transitive predicates

<table>
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<tr>
<th>Predicate</th>
<th>No. of occurrences</th>
<th>No. of inflected forms</th>
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</thead>
<tbody>
<tr>
<td>TALK</td>
<td>317</td>
<td>3</td>
</tr>
<tr>
<td>GIVE</td>
<td>323</td>
<td>n/a</td>
</tr>
<tr>
<td>WANT</td>
<td>129</td>
<td>n/a</td>
</tr>
<tr>
<td>BUY</td>
<td>46</td>
<td>n/a</td>
</tr>
<tr>
<td>MARRY</td>
<td>11</td>
<td>n/a</td>
</tr>
<tr>
<td>RESPECT</td>
<td>7</td>
<td>n/a</td>
</tr>
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<td>n/a</td>
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<tr>
<td>ADOPT</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>836</td>
<td>3</td>
</tr>
</tbody>
</table>

99.6% 0.004% 100%

TALK-TO-ME might be regarded as a spatially inflected verb, but this type or marking is not obligatory and non-productive.

Third Person Reference in Kata Kolok

- preference for deixis
  - individuals are indicated by absolute pointing signs with geographic reference to their homebase
- restricted use of anaphora
  - no localisation
  - list buoys are rarely used in spontaneous data sets
  - spatially inflected transitive predicates occur only with (anaphoric) list buoys

Sources of Variation in Sign-Spatiality

Geographic reference in Balinese co-speech gesture, language & culture

Dense network: context-dependency and shared background knowledge

Other rural signing varieties

ABSL, PROVISL, BKSL discourse is also reported to feature absolute pointing to indicate real-world locations.

BKSL of Thailand has similar kinds of spatial constructions (including the absence of true toponyms).

ABSL, PROVISL, and YMSL also use absolute pointing for person reference in a similar way.
Alternative explanations

Intergenerational differences?

→ While all generations of Kata Kolok signers currently alive are represented in the corpus they are highly integrated on a social level.

Large percentage of L2 learners

→ Unlike other sign language corpora the Kata Kolok corpus include hearing signers of varying proficiencies to test this hypothesis.

Conclusion

The preference for absolute pointing in spontaneous Kata Kolok discourse seems to be facilitated by a high degree of shared background knowledge among villagers.

The establishment of anaphoric third person pointing may be crucial to the development of spatial verb inflection in transitive verbs.

Discussion

The documentation and description of village sign languages critically informs (sign) linguistics – for instance in the domains of sign language typology, cross-modal contact, historical sign linguistics, sign language acquisition, and sign bilingualism.

The corpus analysis is a crucial tool in establishing the cross-linguistic diversity among signed languages.

In documenting sign languages, traditional linguistic description should therefore be supplemented by the creation of a corpus sampling a wide range of contexts of language use.
It's been two or three days that I didn't work, I just stayed put.
And you offered to help with filling at Kolok Ngardja for twenty thousand (rupiah).
"Fifty thousand for a day's pay", he lied when he said that.
Hey, you filled and planted turmeric in Ngardja's place there, you got paid 10 thousand, is it true?
You said it was twenty thousand for filling and farming at Kolok Ngardja, you said so.
You told Rediant and Moringgo.
Rediant said that you planted turmeric in Ngardja's place, and Kalaya as well, for 25 thousand, but at Karland's place.
Hey, you haven't gone over for a chat for three days already. Jubril is drunk and swelling, where did that happen...
You didn't say that Jubril asked Mindri for some food at his house, at Mindri's house, Jubril asked for some food there. How come he went there and got drunk, and his head has bumps because he was badly beaten?
Hey, why isn't Souveni here yet?
How did you get there?
Sanita and Karafa are still not here?
What about Kolok Kili?