Watch the attitude: Embedding and role-shift in ASL

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UConn Sign Language Reading and Discussion Group members

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Today’s talk

Language use: indirect speech reports
John_k said he_k is busy.

Language mention: direct speech reports
John_k said “I_k am busy.”
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“Monsters” (Kaplan 1979, Schlenker 2003)
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Zazaki, Navajo, Amharic, Slave, …
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Role shift in various sign languages?
JOHN_k SAY [RS IX-1_k BUSY]
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IMAGINE/THINK predicates ≠ SAY/CLAIM predicates
Embedding and Role shift in American Sign Language (ASL)

Indexical behavior

+Embedding predicate

Shape of role shift

+Syntax of complement
Methodology

• **Initial/Pilot data-set** (from Pyers 2004)
  ○ 4 Deaf signers x 1 hr each; false-belief tasks → attitude verbs

• **Elicitation** of sentences in contrast (1-4 separate trials)
  ○ Original sentence with 1-IX, a-IX (non-)coref. with NP
    ▪ Transformation with extraction
    ▪ Extraction: arguments (internal & external) and adjuncts

  ○ **Play back** (different session) and to others
    ▪ Grammaticality? / context?

  ○ **Informants** for test items: ASL 5, LSF 1, LSE 1, LSC 2
    [Overall: 8 Deaf, 1 Hearing native signer]

  ○ **Transcribed** by trained ASL transcriber, Deaf
First puzzle: Extent of Role shift in American Sign Language (ASL)

(1)   a. MOM SAY [$RS_a$ 1-IX BUSY]
     ‘Mom$_k$ says I$_k$ am busy’
First puzzle: Extent of Role shift in American Sign Language (ASL)

(1)  
a. MOM **SAY** \[RS_a \text{ 1-IX BUSY}\]  
    ‘Mom\textsubscript{k} says I\textsubscript{k} am busy’

b. ??MOM **IMAGINE** \[RS_a \text{ 1-IX BUSY}\]  
    ‘Mom\textsubscript{k} imagines I\textsubscript{k} am busy’

c. MOM \[RS_a \text{ IMAGINE 1-IX BUSY}\]  
    ‘Mom\textsubscript{k} imagines I\textsubscript{k} am busy’
First puzzle: Extent of Role shift in American Sign Language (ASL)

(1) a. MOM SAY [RS_a 1-IX BUSY]
   "Mom_k says I_k am busy"

   c. MOM [RS_a IMAGINE 1-IX BUSY]
   "Mom_k imagines I_k am busy"
First puzzle: Extent of Role shift cross-linguistically

Confirmed in LSF; Seen in published LSC data:

Catalan Sign Language (Quer 2011)
Second puzzle:
Interpretations of indexicals

(1)  a. MOM \textbf{SAY} [RS_a 1-IX BUSY]
     ‘Mom_k says l_k am busy’

c. MOM [RS_a \textbf{IMAGINE} 1-IX BUSY]
     ‘Mom_k imagines l_k am busy’
Second puzzle:
Interpretations of indexicals

(1) a. MOM **SAY** \([RS_a \text{ 1-IX BUSY}]\)
   ‘Mom\(_k\) says \(I_{k/1}\) am busy’

c. MOM \([RS_a \text{ IMAGINE 1-IX BUSY}]\)
   ‘Mom\(_k\) imagines \(I_{k/1}\) am busy’
Cross-linguistically
THINK: Both contexts accessible

IX-1 → shifted context; HERE → context of speech

\[
\begin{align*}
&\text{IXa MADRID}_m \text{ MOMENT} \text{ JOAN}_i \text{ THINK IX-1}_i \text{ STUDY FINISH HERE}_b \\
&\phantom{\text{IXa MADRID}_m \text{ MOMENT} \text{ JOAN}_i \text{ THINK IX-1}_i \text{ STUDY FINISH HERE}_b} \text{‘When he was in Madrid, Joan thought he would finish his study in Barcelona.’}
\end{align*}
\]

IX-1 → shifted context; THIS → either context

\[
\begin{align*}
&\text{LAST-YEAR} \text{ JOAN}_i \text{ IX-3 THINK IX-1}_i \text{ STUDY FINISH YEAR THIS}_# \\
&\phantom{\text{LAST-YEAR} \text{ JOAN}_i \text{ IX-3 THINK IX-1}_i \text{ STUDY FINISH YEAR THIS}_#} \text{‘Last year, Joan thought he would finish his studies \{this year/then-that year\}.’}
\end{align*}
\]

LSC (Quer 2011)
Monstrous indexicals

Zazaki (Anand & Nevins 2004)

- SAY ֧ frequently licenses “monsters”; other verbs less so
Role shift in American Sign Language (ASL)

(1) a. MOM **SAY** \( [R S_a \text{ 1-IX BUSY}] \)
   ‘Mom\(_k\) says \( l_{k/1} \) am busy’

   c. MOM \( [R S_a \text{ IMAGINE 1-IX BUSY}] \)
   ‘Mom\(_k\) imagines \( l_{k/1} \) am busy’

Two differences between these classes:
• Extent of role shift
• Interpretation of indexical expressions
Role shift in American Sign Language (ASL)

(1) a. MOM $\text{SAY } [RS_a \ 1-\text{IX BUSY}]$
   ‘Mom$_k$ says $l_{k/1}$ am busy’

c. MOM $[RS_a \ \text{IMAGINE} \ 1-\text{IX BUSY}]$
   ‘Mom$_k$ imagines $l_{k/1}$ am busy’

(2) MOM $[RS_a \ (1-\text{IX}) \ \text{BUSY}]$
   ‘Mom$_k$ is like/says $l_{k/1}$ am busy’
Role shift = quotation?

Evidence in favor:
- Used to report others’ language/attitudes
- Evaluation of indexicals to non-speech context
- Marks scope of report like quotation
- No NPI licensing or ellipsis

Evidence against:
- Used in contexts beyond speech reports
- Not all indexicals shift: often are optional
- Null embedding predicates
- Some cases of wh-extraction
Two different classes based on:

- Different meanings of RS?

- Different meanings /sizes of the complement?
  - Kratzer (2006, i.a.), Moulton (2009) …

- Different meanings of the embedding verb?
Role shift as context shifting operator

Zucchi 2004, Quer 2005, Herrmann and Steinbach 2012, Schlenker 2014:

• Role shift changes the context of evaluation of material it scopes above – applies to a clause (IP)

\[
[[RS_i \ Ip]]^{c,s,w,} = \lambda x'. \lambda w'. [[[Ip]]^{<x',w'>},s,w']
\]

- Can’t account for difference in extent or interpretation in two classes shown here
Proposed syntax for role shift


(5) Quer (2005, et seq.)
Role shift as Event modifier

- RS starting on predicates $\rightarrow$ manner adverbial (“like this”) similar to role shifted actions (Davidson 2014)

\[ [RS [IMAGINE]] = \lambda e. \lambda p. \lambda x. \lambda w. [\text{Holder}(x,e) \land \text{belief}'(e,w) \land \text{demonstration}(d,e) \land \forall w' \in \cap \text{CON}(e) [p(w')=1], \text{where } \cap \text{CON}(e)=\text{IMG}(ix \text{ Holder}(x,e), w)] \]

- RS starting after predicates $\rightarrow$ quotation

- Can’t account for non-quotative behavior under SAY
Two different classes based on:

- Different meanings of RS?

- Different meanings /sizes of the complement?
  - Kratzer (2006, i.a.), Moulton (2009) ...

- Different meanings of the embedding verb?
  - Hintikka (1962), Anand & Hacquard (2008) ...
Complement clause

- Overt complementizers may reveal the amount of structure
  - embedded topicalization in English always requires ‘that’ -- a CP, even if some verbs can take IP
  - Boskovic (1997): embedding topicalization diagnostic

(7) a. John, Mary likes
   b. Peter does not believe that John, Mary likes
   c. *Peter does not believe John, Mary likes
Complement clause

- ASL: *wh*-extraction only if no embedded topicalization (Boster 1991, Boskovic 1997)

\[
\text{(23) a. } \textit{BILL FEEL } [_{CP} [_{TP} \textit{JOHN } [_{TP} \textit{MARY LIKE } ]] ] \\
\text{ b. } * \textit{WHO BILL FEEL MARY LIKE } \\
\text{(24) a. } *\textit{BILL THINK } [_{TP} [_{TP} \textit{JOHN MARY LIKE } ]] \\
\text{ b. } \textit{WHO YOU THINK MARY LIKE }
\]
Complement clause

● Potential generalization:

\[ \text{SAY} \left[ \text{CP} \right] \left[ \text{TP} \right] \ldots \]

\[ \ldots \text{THINK} \left[ \text{TP} \right] \ldots \]

Syntactic account: RS after a verb embedding a CP

● Prediction: embedders of interrogatives
Complement clause

**Embedders** (Davidson & Caponigro 2012)

- declarative clause embedders: \textit{THINK, REALIZE, SURPRISE, AGREE}
- propositional (extensional) embedders: \textit{KNOW, GUESS, REMEMBER, FORGET, FIND-OUT, TELL}
- wh-/polar interrogative (intensional) embedders: \textit{ASK, WONDER, CURIOUS, DON’T-KNOW}
Not based on size of embedded clause

<table>
<thead>
<tr>
<th>RS over</th>
<th>RS after</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Propositional:</td>
<td>● ...........?</td>
</tr>
<tr>
<td>◦ KNOW, REMEMBER,</td>
<td>◦ SAY, DECLARE</td>
</tr>
<tr>
<td>FORGET</td>
<td>◦ ASSUME, MEAN, SHOW</td>
</tr>
<tr>
<td>● Declarative clause</td>
<td></td>
</tr>
<tr>
<td>◦ THINK, IMAGINE, DREAM</td>
<td></td>
</tr>
<tr>
<td>● Interrogative:</td>
<td></td>
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  - Hintikka (1962), Anand & Hacquard (2008) ...
<table>
<thead>
<tr>
<th>Attitude predicate classes</th>
<th>(Anand &amp; Hacquard 2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Doxastic</strong></td>
<td><strong>Proffering</strong></td>
</tr>
<tr>
<td><em>say, claim</em></td>
<td><em>believe, imagine</em></td>
</tr>
<tr>
<td>Require sentient subjects</td>
<td>No sentient requirement</td>
</tr>
<tr>
<td>License subjective epistemics</td>
<td>License objective epistemics</td>
</tr>
<tr>
<td>Propose adding the matrix clause to the common ground (are “about” the main clause subject)</td>
<td>Propose adding their complement to the common ground (i.e. <em>proffer</em> their content)</td>
</tr>
<tr>
<td><strong>Role shift extent &amp; interpretations?</strong></td>
<td></td>
</tr>
</tbody>
</table>
Anand and Hacquard (2008)

● Sentient requirement

(8) a. \{\textit{OK} The book/\textit{OK} Mary\} \{\textit{said/claimed}\} that he was happy.
   b. \{\textit{*The book/\textit{OK} Mary}\} \{\textit{thought/imagined}\} that he was happy.

● Interaction with epistemics

(9) a. Holmes \{\#\textit{believed/assumed}\} that every guest might be the murderer.
   Intended: H. believed each had the possibility to be the murderer.
   b. John \{\textit{believes/\*assumes}\} that the Earth might be flat
Recall (in ASL)...

**RS over**

- **Propositional:**
  - *KNOW, REMEMBER, FORGET*

- **Declarative clause**
  - *THINK, IMAGINE, DREAM*

- **Interrogative:**
  - *WONDER, CURIOUS*

**RS after**

- *SAY, DECLARE*

- *ASSUME, MEAN*

sentient requirement / attitude holder = **doxastics**

claim must be accepted by all -- common ground = **proffering**
Pragmatics

- **Proffering**: complement is up for discussion (i.e. answers the QUD, Roberts 1996)
- **Doxastics**: main clause is up for discussion

RS may be used to assign propositions to space for future use (target of anaphora, etc.)
Pragmatics, continued

(10)  a.  *MOM SAY BUSY*
    `Mom said [mom] busy’
    → Pragmatic focus = *that mom is busy*

    b.  *MOM THINK BUSY*
    `Mom thinks [mom] busy’
    → Pragmatic focus = *that mom thinks she is busy*

➢ On its own can’t explain shifted interpretation of indexicals
Difference due to embedding predicates?

_______________RS_______RS

○ .... doxastics .... ; ... profferings ..... 

Currently under examination:
• Prediction 1: should be observed in all languages
• Prediction 2: should show effects with epistemic modals and other related phenomena (involving quantification over possible worlds)
• .........
Two different classes based on:

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- Different meanings of the embedding verb?
Combination of factors to watch for:

Perhaps:
- Context shifting operator may be needed to account for indexical behaviors (esp. in Catalan and German SLs)

but
- When expressed during predicates, role shift may be a predicate modifier providing a demonstration

and
- Pragmatics can explain why doxastic/proffering predicates prefer to extend role shift on or after predicate
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- Indexical behavior
- +Embedding predicate
- Shape of role shift
- +Syntax of complement
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