



Watch the attitude: Embedding and role- shift in ASL

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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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Zazaki, Navajo, Amharic, Slave, ...

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Role shift in various sign languages?

JOHN_k SAY [RS IX-1_k BUSY]

(Zucchi 2004, Quer 2005, Hermann & Steinbach 2012, Schlenker 2014)

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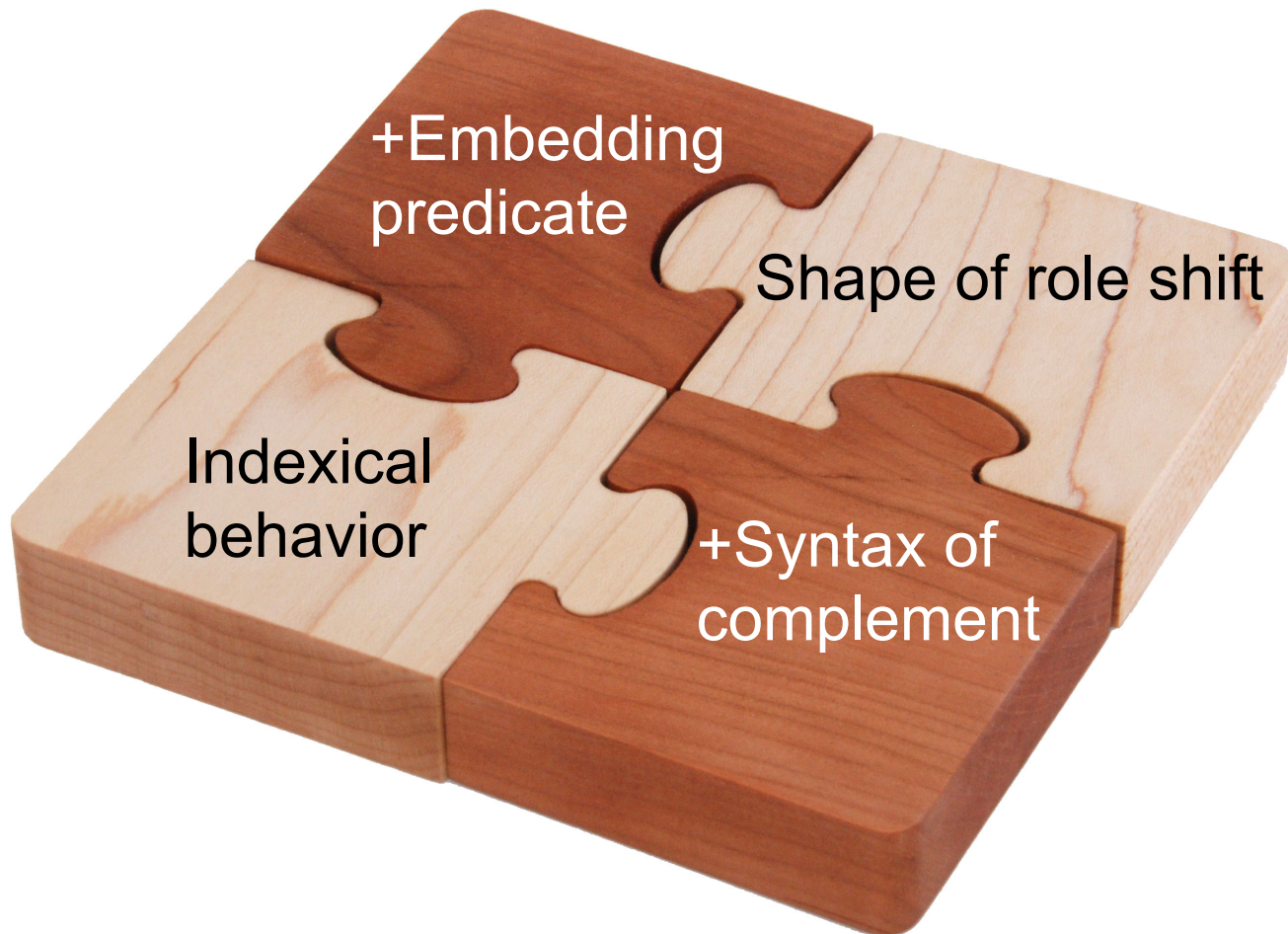
Zazaki, Navajo, Amharic, Slave, ...

IMAGINE/THINK
predicates

≠

SAY/CLAIM
predicates

Embedding and Role shift in American Sign Language (ASL)



Methodology

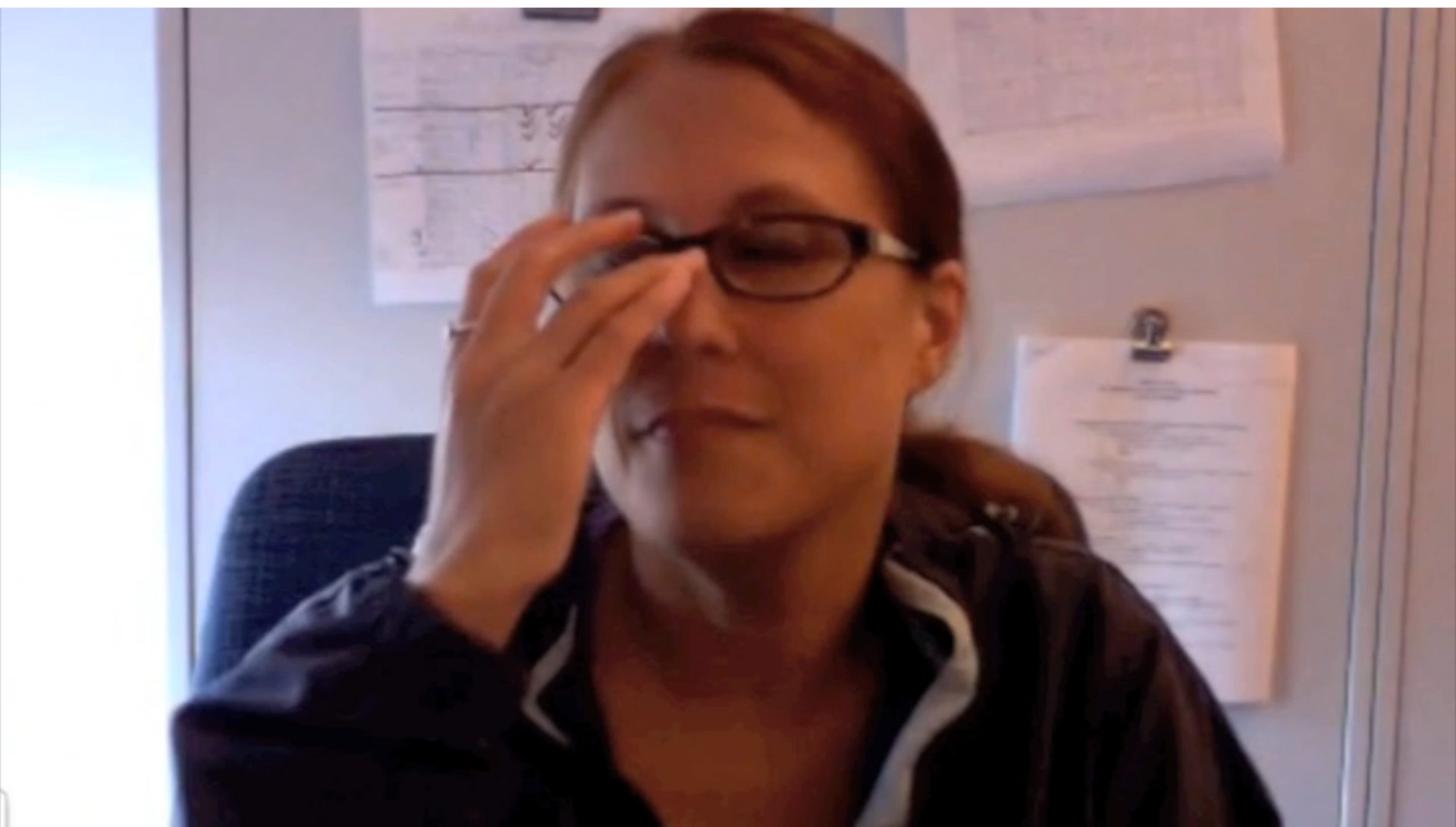
- **Initial/Pilot data-set** (from Pyers 2004)
 - 4 Deaf signers x 1 hr each; false-belief tasks → attitude verbs
- **Elicitation** of sentences in contrast (1-4 separate trials)
 - Original sentence with 1-IX, a-IX (non-)coref. with NP
 - Transformation with extraction
 - Extraction: arguments (internal & 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

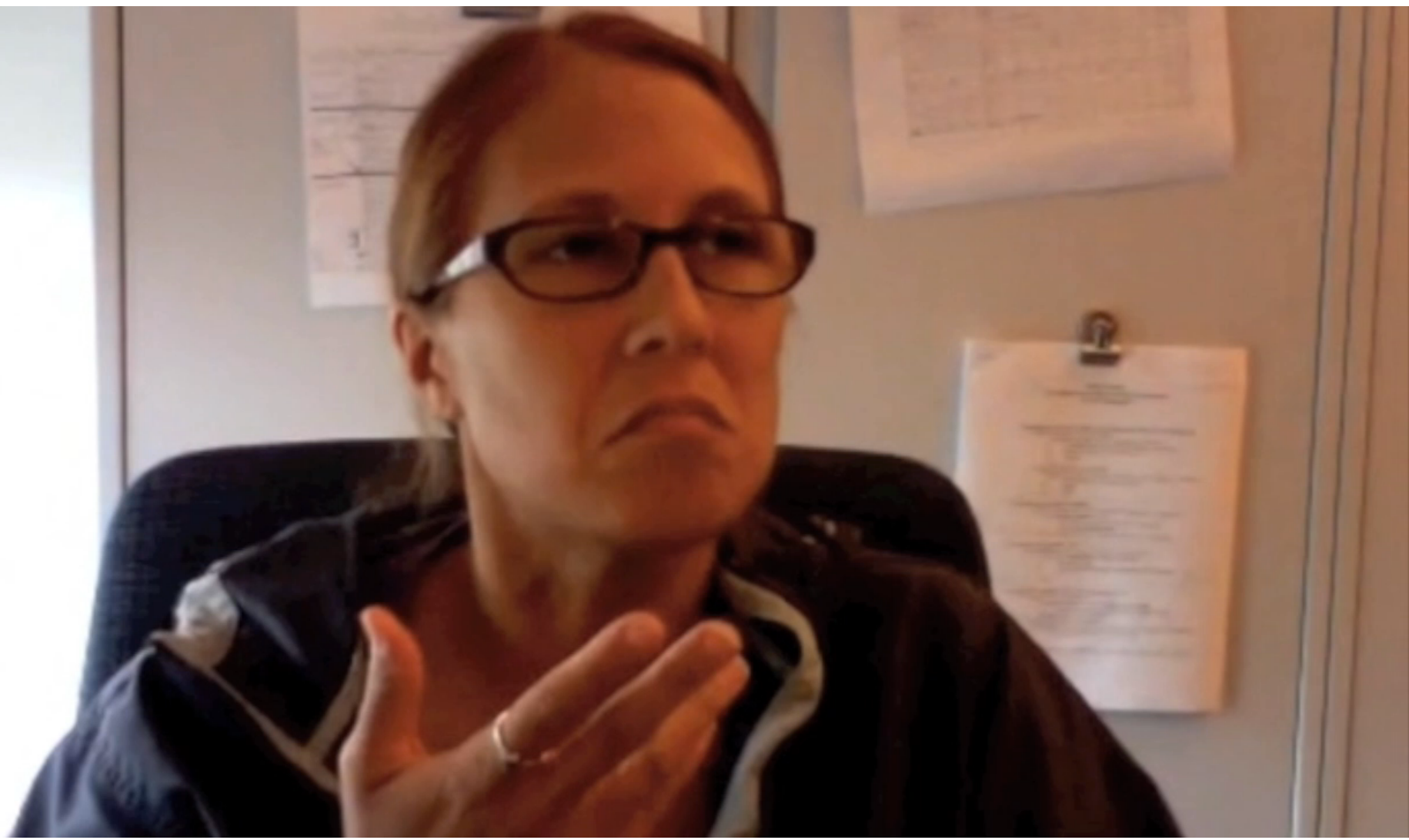
First puzzle: Extent of Role shift in American Sign Language (ASL)

- (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 1-IX BUSY]
'Mom_k says I_k am busy'
 - b. ??MOM **IMAGINE** [RS_a 1-IX BUSY]
'Mom_k imagines 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 in American Sign Language (ASL)

- (1) a. MOM **SAY** [RS_a 1-IX BUSY]
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First puzzle: Extent of Role shift cross-linguistically

Confirmed in LSF; Seen in published LSC data:

IXa MADRID JOAN_i THINK IX-1_i STUDY FINISH HERE MADRID
'When he has in Madrid, Joan thought he would finish his studies there in Madrid.'

ANNA_i 3-SAY-2 IX-1_i FED-UP LOSE+++
'Anna told you that she was fed up with losing so often.'

Catalan Sign Language (Quer 2011)

Second puzzle: Interpretations of indexicals

- (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’

Second puzzle: Interpretations of indexicals

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

_____t _____RS-i
IXa MADRID_m MOMENT JOAN_i THINK IX-1_i STUDY FINISH HERE_b
'When he was in Madrid, Joan thought he would finish his study in
Barcelona.'

IX-1 → shifted context; THIS → either context

_____t _____RS-i
LAST-YEAR JOAN_i IX-3 THINK IX-1_i STUDY FINISH YEAR THIS#
'Last year, Joan thought he would finish his studies {this year/then-that
year}.'

Monstrous indexicals

Heseni_j (mi_k-ra) va ke 'ez_{j/k} dewletia
Hesen.OBL (I.OBL-to) said that I rich.be-PRES
'Hesen said that {I am, Hesen is} rich.'

Heseni_j (Ali_k-ra) va ke ti_{j/k} dewletia
Hesen.OBL (Ali.OBL-to) said that you rich.be-PRES
'Hesen said that {Ali is, you are} rich.'

Zazaki (Anand & Nevins 2004)

- SAY → frequently licenses “monsters”; other verbs less so

Role shift in American Sign Language (ASL)

- (1) a. MOM **SAY** [RS_a 1-IX BUSY]
‘Mom_k says I_{k/*1} am busy’
- c. MOM [RS_a **IMAGINE** 1-IX BUSY]
‘Mom_k imagines I_{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 **SAY** [RS_a 1-IX BUSY]
‘Mom_k says I_{k/*1} am busy’
- c. MOM [RS_a **IMAGINE** 1-IX BUSY]
‘Mom_k imagines I_{k/1} am busy’



embedder:

- (2) MOM [RS_a (1-IX) BUSY]
‘Mom_k is like/says I_{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?
 - Lillo-Martin (1995, et seq,) Quer (2005, i.a.), Zucchi (2004), Schlenker (2014), Davidson (2014)...
- Different meanings /sizes of the complement?
 - Kratzer (2006, i.a.), Moulton (2009) ...
- Different meanings of the embedding verb?
 - Hintikka (1962), Anand & Hacquard (2008) ...

Role shift as context shifting operator

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

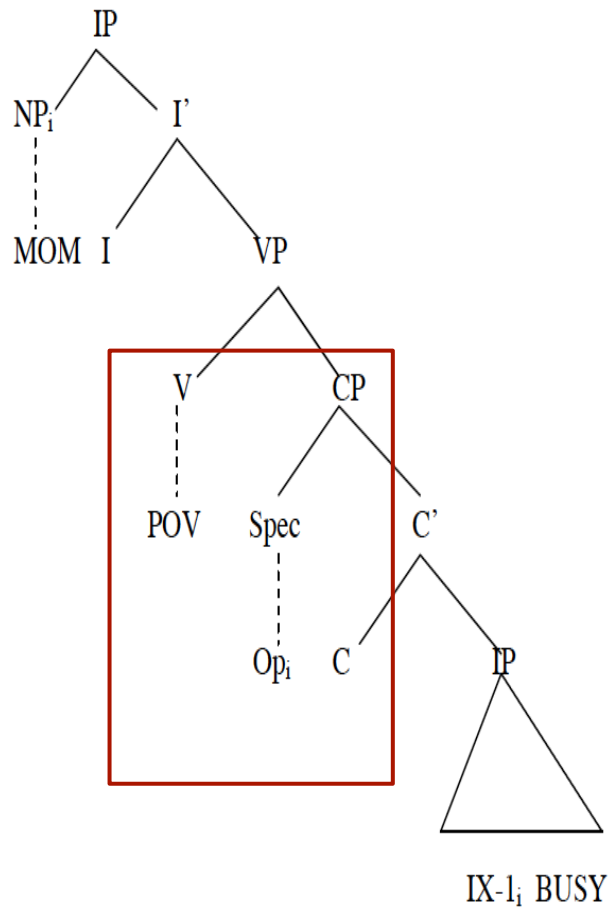
- Role shift changes the context of evaluation of material it scopes above – applies to a clause (IP)

$$(3) \quad [[RS_i \text{ IP}]]^{c,s,w_i} = \lambda x'. \lambda w'. [[IP]]^{<x',w'>,s,w'}$$

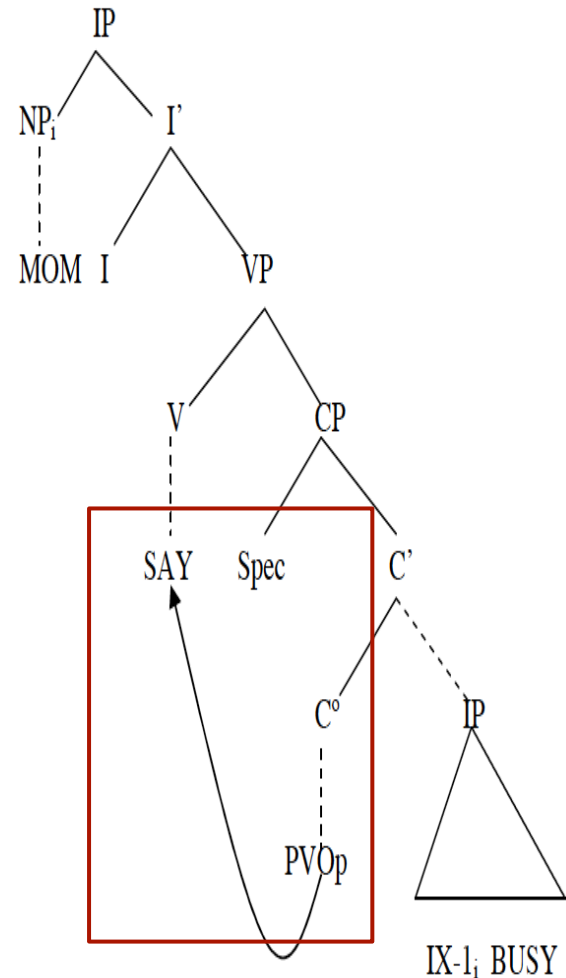
- Can't account for difference in extent or interpretation in two classes shown here

Proposed syntax for role shift

(4) Lillo-Martin (1995, et seq.)



(5) Quer (2005, et seq.)



Role shift as Event modifier

- RS starting on predicates → manner adverbial (“like this”) similar to role shifted actions (Davidson 2014)
- (6) $[RS [IMAGINE]] = \lambda e. \lambda p. \lambda x. \lambda w. [Holder(x, e) \ \& \ belief'(e, w) \ \& \ demonstration(d, e) \ \& \ \forall w' \in \cap CON(e) [p(w')=1], \text{ where } \cap CON(e)=IMG(\lambda x Holder(x, e), w)]$
- RS starting after predicates → quotation
- Can't account for non-quotative behavior under SAY

Two different classes based on:

□ Different meanings of RS?

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● 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)

(23) a. *BILL FEEL* [_{CP} [_{TP} ^{_____t} *JOHN* [_{TP} *MARY LIKE*]]
b. * *WHO BILL FEEL MARY LIKE*

(24) a. **BILL THINK* [_{TP} [_{TP} ^{_____t} *JOHN MARY LIKE*]]

b. *WHO YOU THINK MARY LIKE*

Complement clause

- Potential generalization:

.... SAY [_{CP} [_{TP} ...

... THINK [_{TP}... ...

Syntactic account: RS after a verb embedding a CP



- Prediction: embedders of interrogatives

Complement clause

- Embedders (Davidson & Caponigro 2012)
 - declarative clause embedders:
THINK, REALIZE, SURPRISE, AGREE
 - propositional (extensional) embedders:
KNOW, GUESS, REMEMBER, FORGET, FIND-OUT, TELL
 - wh-/polar interrogative (intensional) embedders:
ASK, WONDER, CURIOUS, DON'T-KNOW
- CP
embedders

Not based on size of embedded clause

RS over

- Propositional:
 - *KNOW, REMEMBER, FORGET*
- Declarative clause
 - *THINK, IMAGINE, DREAM*
- Interrogative:
 - *WONDER, CURIOUS*

definitely
CP
embedders

Expected

RS after

-?
- *SAY, DECLARE*
- *ASSUME, MEAN, SHOW*

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● Different meanings of the embedding verb?

- Hintikka (1962), Anand & Hacquard (2008) ...

Attitude predicate classes

(Anand & Hacquard 2008)

Doxastic <i>say, claim</i>	Proffering <i>believe, imagine</i>
Require sentient subjects	No sentient requirement
License subjective epistemics	License objective epistemics
Propose adding the matrix clause to the common ground (are “about” the main clause subject)	Propose adding their complement to the common ground (i.e. <i>proffer</i> their content)
Role shift extent & interpretations?	

Anand and Hacquard (2008)

- Sentient requirement

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

- Interaction with epistemics

(9) a. Holmes {#believed/assumed} that every guest might be the murderer.

Intended: H. believed each had the possibility to be the murderer.

b. John {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*

sentient requirement / attitude holder = **doxastics**

RS after

- *SAY, DECLARE*
- *ASSUME, MEAN*

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* ^{RS-a}

‘Mom said [mom] busy’

→ Pragmatic focus = *that mom is busy*

b. *MOM THINK BUSY* ^{RS-a}

‘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?

○ $\frac{\text{RS}}{\text{.... doxastics}}$; $\frac{\text{RS}}{\text{... profferings}}$

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)
-

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Combination of factors to watch for:

Perhaps:

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

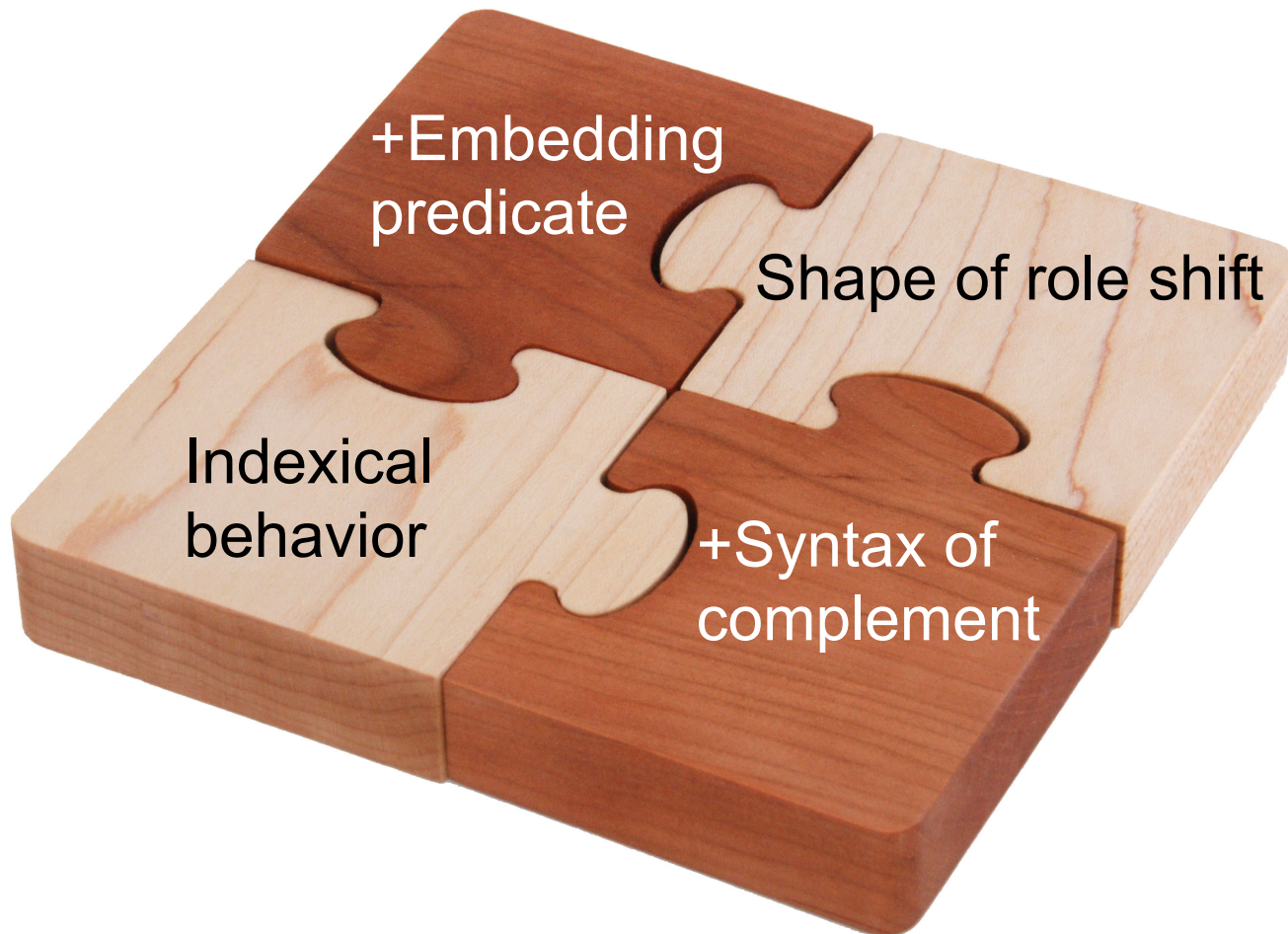
but

- 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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