Quotation and classifier predicates:
Iconicity through event modification

Kathryn Davidson

Yale Linguistics and Cognitive Science

LSA Meeting 2015
Portland, OR
Today’s talk

- Quotation

(1) This morning John said “I’m happy.”

- Sign language classifier predicates

(2) CAR CL_{vehicle}-MOVE(wavy path)
   ‘The car moved in a way similar to this’

These pose challenges because truth conditions depend on both **description** (discrete, symbolic, “language”) and **demonstration** (analog, iconic, “gesture”)
Today’s talk

1. Verbs of quotation
   - Semantics of event modification
2. Sign language classifier predicates
   - Semantics of event modification
3. Extend to sign language role shift
   - Solve puzzle about use of “monstrous” indexical expressions
(3) "Linguistics" contains eleven letters.

(4) This morning John said "I'm happy."
Quotation is iconic

The form of the quotation is related to its meaning:

(5) “Linguistics” contains eleven letters. (True)
≠
“The study of language” has eleven letters. (False)

(6) This morning John said “I’m happy.”
≠
This morning John said that he is happy.
In *spoken* language, more verbatim flexibility:

(7) My cat looked at me like “feed me!” so I gave him his favorite treat.

(8) Bob saw the spider and was like “ahh! [in a scared voice]”.

(9) Bob saw the spider and was like “I can’t kill it!”
Quotation as demonstration

“Be like” is quotative (Blyth et al. 1990)

- Frequently written with quotation marks (performance/mention)
- Exhibit similar structural integrity (can’t extract)

10) The little girl was like “[with a beaming smile] I got an A”

11) *What was the little girl like “[with a beaming smile] I got t?”
Quotation as demonstration

Pragmatically determined verbatim level: If language used is not relevant, (12) can be used to mean (13)

(12) We met under the Eiffel tower, and the first thing he said was “My name is John.”

(13) We met under the Eiffel tower, and the first thing he said was “Je m’appelle John.”
Demonstrations: Multi-dimensional nonverbatim quotation

Demonstrations

(inspired by Clark and Gerrig 1990)

d is a demonstration of e \((demonstration(d, e))\) if along at least one contextually relevant dimension (words, intonation, facial expressions, sentiment, gestures, etc.) d reproduces some properties of e in those dimensions

Like Potts (2007) u (“utterance”) except explicit about:

- more dimensions
- less verbatim for any one dimension

E.g.: Prag. relevant dimensions are words and language of use

(14) We met under the Eiffel tower, and the first thing he said was “Je m’appelle John.”
Demonstration as predicate modification

Verbs of quotation

- demonstration as an argument
- verbatim expectation from pragmatics

John said “I’m happy.”

\[
[I’m happy] = d \\
[say] = \lambda x \lambda d \lambda e [agent(e, x) \land demonstration(d, e) \land saying(e)] \\
[said [I’m happy]] = \\
\lambda x \lambda e [agent(e, x) \land demonstration([I’m happy], e) \land saying(e)] \\
[John said [I’m happy]] \\
\leadsto \exists e. [agent(e, John) \land demonstration(d, e) \land saying(e)]
\]
Introduction

Quotation

Classifiers

Role Shift

Wrap-up

Demonstration as predicate modification

\[
\begin{align*}
\llbracket \text{like} \rrbracket &= \lambda d \lambda e [\text{demonstration}(d, e)] & \text{introduce demonstration} \\
\llbracket \text{gobbling gesture} \rrbracket &= d \\
\llbracket \text{like} \rrbracket &= \lambda d \lambda e [\text{demonstration}(d, e)] \\
\llbracket \text{like [gobbling gesture]} \rrbracket &= \lambda e [\text{demonstration}([\text{gobbling gesture}], e)] \\
\llbracket \text{eat} \rrbracket &= \lambda x \lambda e. [\text{eating}(e) \land \text{agent}(x)] \\
\llbracket \text{eats like[gobbling gesture]} \rrbracket &= \lambda x \lambda e. [\text{eating}(e) \land \text{agent}(e, x) \land \text{demonstration}(d, e)] \\
\llbracket \text{Bob eats like[gobbling gesture]} \rrbracket &= \exists e. [\text{eating}(e) \land \text{agent}(e, \text{bob}) \land \text{demonstration}(d, e)]
\end{align*}
\]
Demonstration as predicate modification

John was like “I’m happy.”

\[ \llbracket I'm \text{ happy} \rrbracket = d \]

\[ \llbracket \text{like} \rrbracket = \lambda d \lambda e[\text{demonstration}(d, e)] \]

\[ \llbracket \text{like [I’m happy]} \rrbracket = \lambda e[\text{demonstration}([\text{I’m happy}], e)] \]

\[ \llbracket \text{be like [I’m happy]} \rrbracket \]

\[ = \lambda x \lambda e.[\text{agent}(e, x) \land \text{demonstration}(d, e)] \]

\[ \llbracket \text{John was like [I’m happy]} \rrbracket \]

\[ \leadsto \exists e.[\text{agent}(e, \text{John}) \land \text{demonstration}(d, e)] \]
Demonstration as predicate modification

(15) Bob said “I’m hungry”
\[ \implies \text{Bob said something} \]
\[ \exists e. [\text{saying}(e) \land \text{agent}(e, \text{bob}) \land \text{demonstration}(\text{I’m hungry, } e)] \]

(16) Bob was eating like [gobbling gesture]
\[ \implies \text{Bob was eating} \]
\[ \exists e. [\text{eating}(e) \land \text{agent}(e, \text{bob}) \land \text{demonstration}([\text{gg}], e)] \]

(17) Bob was like [gobbling gesture]/“I’m hungry”
\[ \equiv \text{Bob was eating, Bob said something} \]
\[ \exists e. [\text{agent}(e, \text{bob}) \land \text{demonstration}([\text{gg}] / \text{I’m hungry, } e)] \]
Classifier Predicates

Figure: From Klima and Bellugi 1979, captioned “Pronominal-like classifiers and their use in mimetic elaboration”

Emmorey and Herzig 2003:
Linguistic-like handshape + Gesture-like movement and location
= Combine to create a verb/predicate
Classifier semantics: Zucchi et al. 2012

CAR CL(vehicle)-MOVE ‘The car moved in a way similar to this.’

- The verb $cl_{vehicle} \cdot MOVE_e$ is translated thus:
  $$cl_{i,vehicle} \cdot MOVE_e \Rightarrow \lambda e[move(x_{i,vehicle}, e) \land similar_{S \rightarrow L}(dthat[the \ movement \ of \ cl^{CA}_{i,vehicle}], e)]$$

- According to this translation, $cl_{vehicle} \cdot MOVE_e$ in a context $c$ denotes the property of being a movement of a vehicle which is similar (in the relevant respects) to the movement performed by signing the classifier handshape $cl_{vehicle}$ in $c$. 
Classifier Predicates

One could imagine the light verb being based on 4 categories of classifier predicates (Engberg-Pederson 1993)

- Whole entity → LOCATION or MOVEMENT verbal root
- Handling → MANIPULATE verbal root
- Extention/Surface → EXTEND-TO verbal root
- Body part/limb → MOVEMENT verbal root
Classifier as predicate modification

WOMAN CL(1)-LOCATE ‘A woman was like this.’

\[ \text{WOMAN CL}(1) - \text{LOCATE} \] ‘A woman was like this.’

\[
\begin{align*}
\llbracket \text{hand at location } a \rrbracket & = d \\
\llbracket \text{CL} \rrbracket & = \lambda d \lambda e [\text{demonstration}(d, e)] \\
\llbracket \text{CL [hand at location } a\text{]} \rrbracket & = \lambda e [\text{demonstration}([\text{hand at location } a], e)] \\
\llbracket \text{LOCATE} \rrbracket & = \lambda x \lambda e . [\text{LOCATE}(e) \land \text{theme}(x)] \\
\llbracket \text{LOCATE CL [hand at location } a\text{]} \rrbracket & = \lambda x \lambda e . [\text{locating}(e) \land \text{theme}(e, x) \land \text{demonstration}(d, e)] \\
\llbracket \text{WOMAN LOCATE [hand at location } a\text{]} \rrbracket & \Rightarrow \exists e . [\text{locating}(e) \land \text{theme}(e, \text{woman}) \land \text{demonstration}(d, e)] 
\end{align*}
\]
Argument from Bimodal Bilingualism

Sound effects frequently accompany classifiers in fluent bimodal (=sign and speech) bilingual speech:

(18)  

ASL: \[ GOLF \quad CL-1(\text{path of ball going up}) \quad BALL \]

English: \[ \text{golf} \quad \text{(sound-effect)} \quad \text{ball} \]

\[ CL-1(\text{path of ball going up}) \]

\[ \text{(sound-effect)} \]

‘In golf the ball goes high up, the ball goes like this.’

(3 year-old bimodal bilingual in spontaneous play with Deaf father, reported in Petroj et al. 2014)
Classifier pragmatics

(19) Right hand: CL-1(zigzag movement toward center)
    Left hand: CL-1(zigzag movement toward center)
    ‘The two people walk toward each other in a zigzag pattern.’
    Response:
    ‘No, they walked straight toward each other!’

(20) Right hand: CL-1(straight movement toward center)
    Left hand: CL-1(straight movement toward center)
    ‘The two people walk toward each other.’
    Response:
    #‘No, they walked in a zigzag pattern!’
    ‘And actually, they walked in a zigzag pattern!’
In classifier predicates, like quotes:

- Verb is simple/semantically light
- The demonstration is a (manner) modification of the verb
  - Moving, locating, handling events for which the demonstration is accurate (just like moving quickly, accurately, etc.)
- The accuracy/verbatim level of the demonstration is determined by context
Unifying demonstrations of events

Prediction

Given that the iconicity in both quotation and classifier predicates can be modeled as event modifying demonstrations, some language might use the same strategy for both.

- Yes! Role shift in ASL can be used for both quotations (/constructed dialogue) and classifiers (/constructed action).
Role shift

(21) \[ \text{HUSBAND}_a \overline{\text{REALLY IX}_1 \text{ NOT MEAN}}^a \]

‘The husband goes/was like “I really didn’t mean it”.’

Figure: Padden 1986
Role Shift

Reporting language or thoughts:

(22) $\text{MARY}_a \text{ SAY/THINK/∅ } \text{IX}_1 \text{ 1-WATCH-B}^a$

‘Mary said/thought/was like “I was watching it”.’

Reporting actions:

(23) $\text{MARY}_a \text{ 1-WATCH-B}^a$

‘Mary was watching it.’
First person agreement but subject not the speaker!

(24)  \[ \text{MARY}_a \ 1\text{-WATCH-B} \]

‘Mary was watching it.’

This \textit{cannot} be a quote, since it only reports an action.

Proposals:

- Covert matrix Point of View predicate: “Mary was like ‘I’m watching it’” (Lillo-Martin 1995)

Existing accounts

Covert matrix Point of View predicate

1 *Problem*: There is an entailment that the action was performed (Schlenker 2014)

Covert context shift operator

1 *Stipulation*: First person agreement is unique: other indexicals cannot shift in actions (Engberg-Pedersen 1993)

2 *Stipulation*: Verb and rest under action shift must be interpreted “maximally iconically” (Schlenker 2014)
Instead:

- Reconsider role shift as “body classifier” (Supalla 1982)
- No embedding or stipulations required: 1p agreement in ASL is unique because it allows for demonstration (Meir et al. 2007)
- Looks like quotation (has role shift) because both quotes and classifiers involve event modifying demonstrations

\[(25)\] \(\text{MARY}_a 1\text{-WATCH}-\overline{\text{B}}\)
\(\text{MARY}_a \text{CL}_{\text{body}}\text{-WATCH}(\text{demonstration})\) (body classifier)
‘Mary was watching it like [this].’
Action role shift using demonstration

\[(26) \quad (MARRY_a 1\text{-WATCH-b})^a\]

\[\text{MARY}_a \text{ CL}_{body}\text{-WATCH-b(demonstration)}\]

‘Mary was watching it like [this].’

\[[\text{watching demonstration}] = d\]

\[[\text{RS}] = \lambda d \lambda e[\text{demonstration}(d, e)]\]

\[[\text{watch-b}] = \lambda x \lambda y \lambda e. [\text{watching}(e) \land \text{agent}(x, e) \land \text{theme}(y, e)]\]

\[[\text{watch-b RS[watching]}]\]

\[= \lambda x \lambda y \lambda e. [\text{watching}(e) \land \text{agent}(x, e) \land \text{theme}(y, e) \land \text{demonstration}(d, e)]\]

\[[\text{Mary watch-b RS[watching]}]\]

\[\leadsto \exists e. [\text{watching}(e) \land \text{agent}(Mary, e) \land \text{theme}(b, e) \land \text{demonstration}(d, e)]\]
Iconicity in the verbal domain

- Level of iconicity/verbatim quotes is heavily dependent on pragmatics
- Demonstrations provide the flexibility needed in both quotes (esp. in spoken language, but also written) and classifiers
- Role shift can be used for both quotations and classifiers (both involving demonstrations) in ASL
- *Future work*: Partial/mixed quotation, mixed classifiers and role shift
The puzzle of word order in ASL

Predicates with demonstrations get moved sentence-finally

(27)  MAN FORGET NUMBER       (SVO, noniconic typical WO)
     *MAN NUMBER FORGET       (SOV, noniconic, atypical WO)

(28)  MAN SEE MOVIE              (SVO, noniconic, typical WO)
     MAN$_a$ MOVIE LOOK-UP-AT$_a$   (SOV, iconic, atypical WO)

(29)  WOMAN$_a$ PIE PUT-IN-OVEN$_a$ (SOV, iconic, atypical WO)
     (Liddell 1980)
Plain vs. Classifiers (Body/Role Shift or otherwise)

(30) MAN SAW MOVIE
‘The man saw/was looking at a movie.’

(31) $\text{MAN}_a \ \text{MOVIE} \ \overset{a}{\text{LOOK-UP-AT}}$
‘The man looked up at the movie (like this).’

(32) MAN CL-S(move upward)
‘The man’s head turned up (toward the screen).’
Thank you!
And many thanks to...

- The Yale Semantics Reading Group, RUCCS at Rutgers, U. Chicago Center for Gesture, Sign, and Language, NYU Semantics group, and Daniel Casasanto, Ivano Caponigro, Diane Lillo-Martin, Beatrice Santorini, Philippe Schlenker and Ronnie Wilbur for very helpful discussion.