Semantics and pragmatics of sign languages

Introduction

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Myself

- Universitat Pompeu Fabra, Barcelona
- Formal but also descriptive research: reference, specificity, pointing signs, impersonal reference, classifiers, discourse, corpus, lexicography
- Teaching SL linguistics since 2004
- Very much involved with the Catalan Deaf community
- I hope you get the basis of how meaning is conveyed in SL

Meaning

- Meaning of words

  (for content words, entailment relations: *run → move, bird → animal; anthonymy hot/cold, etc.)*
- Relations between the verb and the verbal arguments

  (thematic roles)
- Meaning of whole sentences, derived from their constituent parts.
- The meaning of discourse

  (what makes a discourse coherent, how the reference of pronouns and definite descriptions is established across sentences, etc.)

Semantics

- "John smokes"

  = 1 iff smoke (john)

- "John quitted smoking"

  = 1 iff quite-smoke (john)

  ⇨ John used to smoke

Pragmatics

- "Do you know what time is it?"

  a. Yes

  b. It is half past six

- "A student copied in the pragmatics exam"

  ➡ **Only** one student copied in the exam

  The addressee does not know the student. But what about the sender?

Definitions

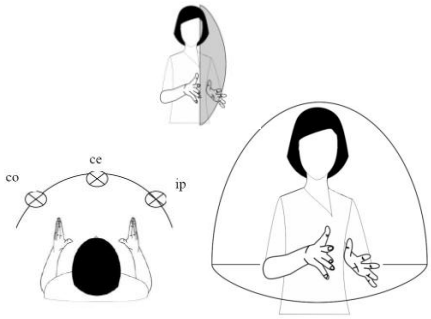
- **Semantic** information is encoded in the sentence.
- **Pragmatic** information is generated by, or at least made relevant by, the act of uttering the sentence.

Semantics	Pragmatics
Linguistic (conventional) meaning	Use
Truth-conditional meaning	Non-truth-conditional meaning
Context independence	Context dependence

(Bach, 2002)

What about SLs?

- How is meaning conveyed in SLs?
- Relationship between conveying meaning and using sign space



Sign space

- Three dimensional space in front of signer's body, where signs are articulated
- Not only used for articulatory reasons, but it carries linguistic meaning
- Different components of the grammar rely on sign space

Two spatial functions

- **Descriptive localisation** (topographic space)
  - It express spatial relations among objects
  - Meaningful locations that exploit the iconic properties of the visual-spatial modality

- **Non-descriptive localisation** (syntactic space)
  - Abstract use of space in which entities are localised arbitrarily to identify the arguments of the verb
  - Locations can be shifted without affecting the truth conditions of the sentence

(Poizner et al., 1987)

Outline of the course

- Dynamic semantics (DRT)
- Sign space and meaning
- Definiteness and specificity marking in SL

Readings

Bahan, Benjamin, Judy Kegl, Dawn MacLaughlin & Carol Neidle. 1995. Convergent Evidence for the Structure of Determiner Phrases in American Sign Language. In *FLSM VI. Proceedings of the Sixth Annual Meeting of the Formal Linguistics Society of Mid America*, vol. 2, 1-12. Bloomington: Indiana University Linguistics Club

Barberà, Gemma. In press. A unified account of specificity in Catalan Sign Language (LSC). In Nouwen, R., A. Chernilovskaya, A. Aguilar-Guevara (eds). Proceedings of Sinn und Bedeutung 16. MIT working papers in linguistic

Barberà, Gemma. 2011. When wide scope is not enough: scope and topicality of discourse referents. . In M. Aloni, F. Roelofsen, G. Weidman Sassoon, K. Schulz, V. Kimmelman & M. Westera, eds. *Proceedings of the 18th Annual Amsterdam Colloquium*. University of Amsterdam

Kathryn Davidson, Ivano Caponigro & Rachel Mayberry. 2009. Testing Calculation of Scalar Implicatures in English and American Sign Language. Presented at the workshop on Formal Approaches to Sign Languages, European Summer School for Language, Logic, and Information. Bordeaux, France

Quer, Josep. 2011. Quantificational strategies across language modalities. In M. Aloni, F. Roelofsen, G. Weidman Sassoon, K. Schulz, V. Kimmelman & M. Westera, eds. *Proceedings of the 18th Annual Amsterdam Colloquium*. University of Amsterdam

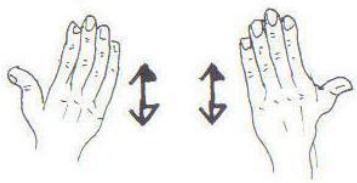
Schlenker, Philippe. 2011. Quantifiers and Variables: Insights from Sign Language (ASL and LSF). In: Partee, B.H., Glanzberg, M., & Skilters, J. eds, *Formal Semantics and Pragmatics: Discourse, Context, and Models*. The Baltic International Yearbook of Cognition, Logic and Communication, Vol. 6

Materials

- Slides
- Articles
- List of references of SL semantics/pragmatics
- Other interests? Just ask me ☺

Not imperative, but highly recommended…

- Enjoy the course
- Ask any time you like



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Semantics and pragmatics of sign languages

Day 1:
Dynamic semantics and sign space

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Semantics/pragmatics of SLs

- Young field of research

  (Quer 2005a, 2005b, 2011a, 2011b; Barberà, 2011, 2012; Cecchetto & Zucchi, 2006; Schlenker, 2011a, 2011b; Wilbur, 2011; Zucchi, 2004, 2011)

- Discourse analysis

  (Baker, 1977; Coates & Sutton-Spence, 2001; Metzger, 1995; Metzger & Bahan, 2001; Meurant 2004, 2006, 2007, 2008; Morgan 1996, 1999; Nilsson, 2007; Wilson, 1996; Winston 1995, among others)

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Sign space

- Three dimensional space in front of signer's body, where signs are articulated
- Not only used for articulatory reasons, but it carries linguistic meaning
- Different components of the grammar rely on sign space

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Sign space: phonology

- Space is used contrastively in the place of articulation parameter of signs

a. REMEMBER

b. DIFFICULT

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Sign space: morphosyntax

- Signs are modulated in space for grammatical purposes to express number, person, and arguments of the verb

a. 1-OFFER-3 'I give (it) to him.'

b. 3-OFFER-1 'He gives (it) to me.'

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Sign space: discourse

- Spatial locations are associated with discourse referents, which are identified with certain locations in space which can be further referred back to (Klima & Bellugi, 1979).

First and futher mentions of a referent localised in space

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Morphosyntactic mechanisms of localisation

Manual:

-Index signs / PERSON

-Spatial modification of signs

-Verb agreement

Non-manual:

-Eyegaze

-Bodylean

-Headtilt

ASL (Winston, 1995), BSL (Morgan, 1996), and LSC (Barberà, 2007)

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Two spatial functions

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(Poizner et al., 1987)

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Descriptive localisation

- Expression of spatial information (relative positioning of objects w.r.t. other objects)
- Relationship between the properties of space and the signer's perspective
- Use of classifier constructions and placement of the hands

Book on the table

(Emmorey & Falgier, 1999; Emmorey, 2001; Emmorey, 2002a, 2002b; Emmorey & Tversky, 2002 for ASL; and Perniss, 2007ab; Perniss & Özyürek, 2008 for DGS; Suppalla, 1986; Engberg-Pedersen, 1993)

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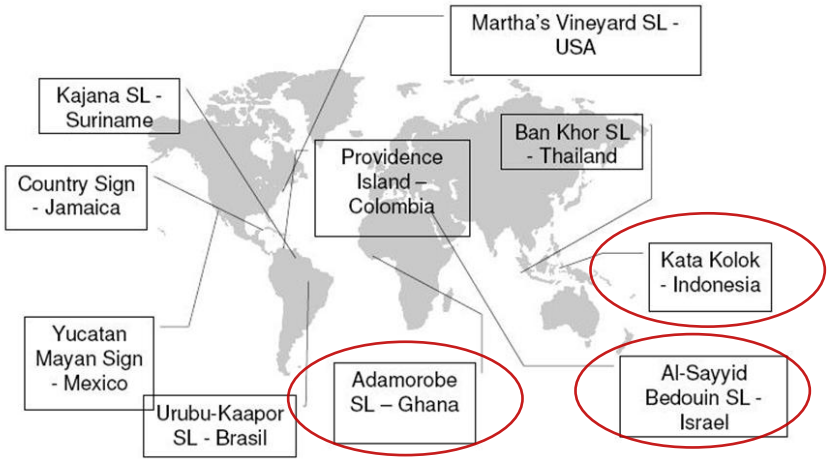
Village SLs: Extensive use of descriptive localisation



(De Vos 2007)

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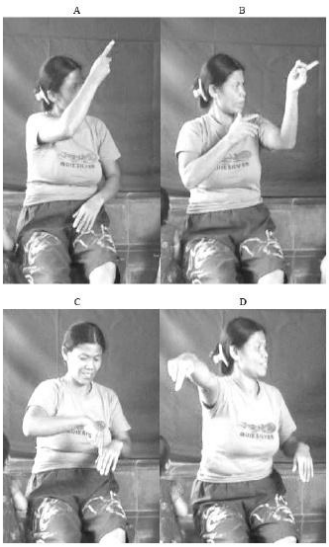
Kata kolok

- Use of real-world locations instead of establishing abstract locations, despite the ambiguities (Marsaja, 2008; de Vos, 2012)

- The sign for a place may be localised differently depending on where the signer is in relation to the referent.

- Absolute frame of reference (Levinson, 1996), which is very rarely used in western SLs.



(De Vos 2012)

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Non-descriptive localisation

- It abstractly uses space composed of spatial planes and fixed trajectories in the features within each plane.
- Nouns can also be assigned locations vertically above or below the horizontal plane in certain circumstances (Fischer & Gough, 1974; Shepard-Kegl, 1985)

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Non-descriptive localisation II

Horitzontal plane Midsaggital plane Frontal plane

Phonological analysis of spatial planes: Liddell & Johnson (1989), Sandler (1989) and Brentari (1998)

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One function or two?

- Integrated view of the double function of spatial loci (Liddell (1990, 1995, 1998, 2003), van Hoek (1992, 1996), Engberg-Pedersen (1993, 2003) and Perniss (to appear))
- Psycholinguistic studies have been undertaken to motivate this difference from an experimental and testable perspective. Different processing (Emmorey et al. 1995)

Brendan will tell you more about it

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Always separated?

- Can you think of a couple of signed examples where the descriptive and non-descriptive use are **separated**?
- Can you think of a couple of signed examples where the descriptive and non-descriptive use are **conflated**?

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Sign space and discreteness

- The definition of natural languages as discrete systems has been applied with difficulty to SLs when it comes to the analysis of space.
- The boundless three-dimensional extent in front of the body of the signer is, at first sight, difficult to be considered a discrete system.

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Sign space analysis

- Not free of controversy
- Modality effects

Gestural analysis	Variable / index analysis
• Similarities in the use of space in **co-speech gesture** • Signs that necessarily use locations in space are composed of a linguistic and a **gestural part** (Liddell, 1990; Meier 1990) • Signs directed to space are analysed as a **gradient continuum**, and very rarely as categorical elements.	• Index signs are linguistic elements • Morphophonologically decomposable as linguistic elements • Index signs treated as categorical elements

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Spatial mapping view

- Localisation is the process used by the signer to reflect mental representations in physical space for reference and subsequent co-reference in discourse

(Mandel 1977; Liddell 1990, 1994, 1995, 2000, 2003; van Hoek 1992, 1992; Engberg-Pedersen 1993; Winston 1995; Rinfret 2009)

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R-locus view

- Formal relationship between referent and location, for further use later in the discourse.
- DPs are considered to contain referential features that are abstract, SLs show the overt morphological expression of referential distinctions of DPs through association of distinct referents with specific spatial locations.

(Lacy, 1974; Friedman, 1975; Kegl, 1976/2003; Lillo-Martin & Klima, 1990; Janis, 1992; Bahan, 1996; Cormier, Wechsler and Meier, 1998; Aronoff et al., 2000, Lillo-Martin & Meier, 2011; Schlenker, 2011a b; Meir, 1998)

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SL Pronouns: Form

- Crosslinguistically realized by an index pointing

'I'

'you'

's/he'

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SL Pronouns: Features

- Spoken language pronouns may encode: person, number, gender, distance/proximity, kinship status, social status, case, and tense.
- SL pronouns are generally claimed to encode person/location features, sometimes number features.
- How many person distinctions? There are no fixed locations for 2nd or 3rd person.

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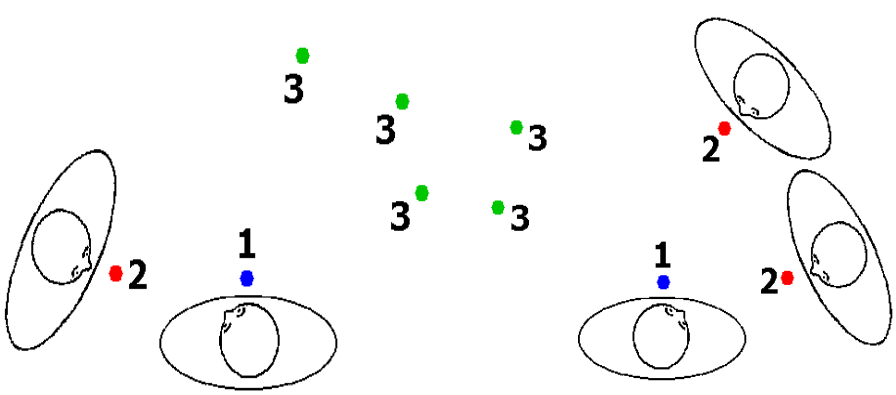
SL Pronouns: Features



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SL Pronouns: Features

- Person features that SL personal pronouns encode:

(i) Three-person distinction (Friedman 1975; Padden 1988; Sandler 1989; Berenz & Ferreira Brito 1990; Berenz 1998; Alibasic & Wilbur 2006; Neidle & Lee 2006; Meurant 2008)

(ii) Two person distinction (Meier 1990; Smith 1990; Engberg-Pedersen 1993; Meir 1998; Rathmann 2000; Lillo-Martin 1995)

(iii) No person distinctions (McBurney 2004)

(iv) One single pronoun (Lillo-Martin & Klima 1990)

(v) Spatial pronouns (Lacy, 1974; Kegl, 1976/2003)

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Three person distinction:

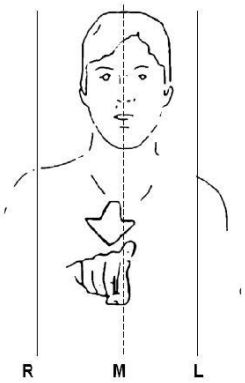
- <u>Body coordinates model</u>

(Berenz 1998; Alibasic & Wilbur 2006)

-Nonmanuals included:
head, gaze, hand and chest

-Alignment of coordinates: 2nd person

-Non-alignment of coordinates: 3rd person



(Berenz 1998)

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SL Pronouns: Features

- Think of arguments against or favouring each analysis:

(i) Three-person distinction

(ii) Two person distinction

(iii) No person distinctions

(iv) One single pronoun

(v) Spatial pronouns

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Important question

- How spatial locations are associated with meaning and which their precise function is has not been thoroughly formalised under any theoretical framework

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Literature on anaphora

- Two competing views on how pronouns come to depend on their antecedents:

a) Classical semantics: e-type pronouns (definite description)

→ "Jean connaît le garçon" "Jean le connaît"
Jean knows the boy Jean him knows

→ "we linguists" (assimilation between pronouns and determiners)

b) Dynamic semantics: variables (by-stander)

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"Every man who owns a donkey beats it."

a) E-type approach:

"Every man who owns a donkey beats it (the donkey (he owns))"

b) Dynamic semantic approach

"Every man who owns a donkey$_j$ beats it$_j$"

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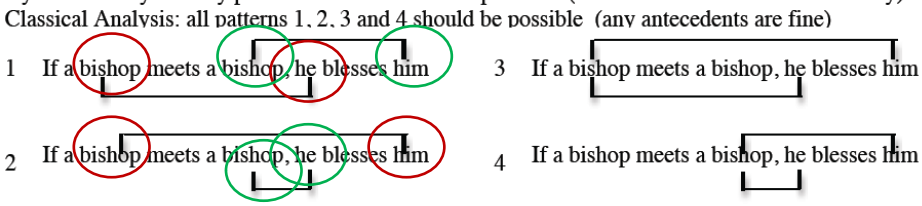
Possible formal links according to Dynamic vs. Classical Analyses

Dynamic Analysis: only patterns 1 and 2 should be possible (different antecedents are necessary)
Classical Analysis: all patterns 1, 2, 3 and 4 should be possible (any antecedents are fine)



-Classical analysis predicts an analysis that natural language does not consider as cognitively possible

-Formal connection between pronoun and antecedent is not morphologically realised **(Schlenker, 2011)**

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Discourse and discourse model

- A discourse is more than a sequence of isolated sentences.
- Sentences within a discourse are interpreted with respect to their truth conditions, but they also need to be interpreted in connection with the context.
- Context is constantly being update.

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Common ground

- Set of indices considered to be DRs that the interlocutors in the conversation know, which includes:
  - linguistically given information
  - common educational and cultural experience
  - sensory input
- Participants keep adding the content of what is asserted to what is presupposed.

(Stalnaker, 1978; Heim, 1982)

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Common ground II

- *Goat entering the room*

  "How did **it** get in here? **It** is stinky!"

- First mention definite NP

- $\gamma \wedge c = c'$

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Formal representation of natural languages

- Predicate logic after Montague Grammar faces several problems when the representation of larger chunks of discourse is needed.
- Montague Grammar's aims at analysing the conditions under which a sentence is true, relying on reference and truth.
- Dynamic semantics theories regard the meaning and interpretation of an expression as its potential to change the context of interpretation in the discourse domain.

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Quantifiers

- The logical constant in predicate logic indicating whether a statement is universal or particular

- Existential quantifier (∃): at least one entity has a given property
- Universal quantifier (∀): all entities in the universe have a given property

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Formal representation of natural languages II

a. Brendan likes SL linguistics.

$\exists x(\text{brendan}(x) \wedge \text{SL linguistics}(y) \wedge \text{like}(x,y))$

b. Every SL linguist is nice.

$\forall x(\text{SL linguist}(x) \wedge \text{nice}(x))$

If Brendan studies SL linguistics, he is happy.

$\exists x(\text{brendan}(x) \wedge \text{SL ling}(y) \wedge \text{study}(x,y)) \rightarrow \text{happy}(x)$

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Scope I

An expression α is in the scope of an expression β iff the interpretation of α is affected by the semantic contribution of β.

Scope of DRs

Narrow scope: Op <NP_j .... NP_j>

Wide scope: NP_k ... NP_k ... Op <NP_j .... NP_j>

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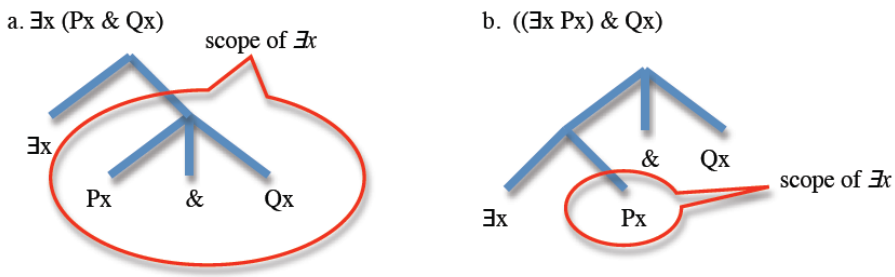
Scope II

Qx is in the scope of the quantifier ∃x in a.
but not in b. (c-command domain)



(Schlenker, 2011)

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Donkey sentences

- Impossibility of predicate logic to represent sentences where an indefinite NP and an anaphoric pronoun are outside the regular scope domain of the NP (Geach, 1962)

a. If a farmer owns a donkey, he beats it.
∃x (farmer (x) ∧ donkey (y) ∧ own (x,y)) → beat (x,y)

b. Every farmer who owns a donkey beats it.
∀x (farmer (x) ∧ (donkey (y) ∧ own (x,y)) → beat (x,y)

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Donkey sentences

Three possible solutions:

- Dynamic semantics:
  - Kamp 1981; Heim 1982; Kamp & Reyle 1993; Roberts 2005
- E-type approach:
  - Evans 1980; Elbourne 2005; Heim 1990
- Dynamic predicate logic approach:
  - Groenendijk & Stokhof 1991

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Contribution of SLs to dynamic semantic approach

- Pronouns must be analysed as variables rather than as definite descriptions.
- Connection between pronoun and antecedent is morphologically (and overtly) expressed in SLs through spatial locations

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Discourse Representation Theory

Interpretation involves a two-stage process:

- The construction of semantic representations called Discourse Representation Structures (DRSs), which represent larger linguistic units and discourses rather than single sentences
- A model-theoretic interpretation of the DRSs.

(Kamp 1981; Kamp & Reyle 1993; Kamp, Reyle & van Genabith 2007)

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Process

- $S_1, S_2 \ldots S_n$
- syntactic analysis of $S_1 \rightarrow$ DRS K_1
- $\{DRS\ K_1\}\ S_2 \rightarrow$ DRS K_2
- $\{DRS\ K_2\}\ S_3 \rightarrow$ DRS K_3

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Process II

- Simple monoargumental sentences have a combination of a noun phrase (NP) and a verb phrase (VP)
- The individual indicated by the NP ("discourse referent") satisfies the predicate expressed by the VP
- Individuals satisfy the predicate and are represented by a variable.

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Example

- 'A student left.'

x
student (x) leave (x)

- A DRS is a pair of sets <U, C>:
  - U is a set of DRs, called the universe of discourse
  - C is a set of DRS conditions

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(1) Lali is reading a book. She likes it.

(2)

u v
lali (u) book (v) read (u, v)

(3)

u v x y
lali (u) book (v) read (u, v) she (x) it (y) like (x, y) x = u y = v

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Identity relation: features

Lali $\begin{bmatrix} +\text{subj} \\ +\text{fem} \\ +\text{sg} \\ +\text{nom} \end{bmatrix}$

She $\begin{bmatrix} +\text{subj} \\ +\text{fem} \\ +\text{sg} \\ +\text{nom} \end{bmatrix}$

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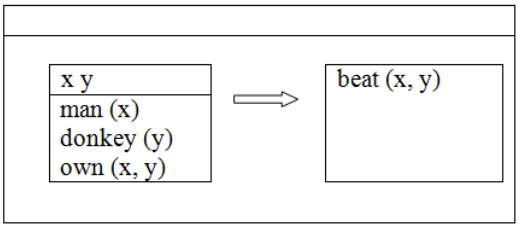
Donkey sentences in DRT

(4) Every man who owns a donkey beats it.

(5)



- Tripartite quantificational structure:
  - Antecedent (restriction)
  - Unselective universal quantifier
  - Consequent (nuclear scope)
  - (5) comes out as true iff for every man who owns a donkey in the model, there is a donkey which he beats.

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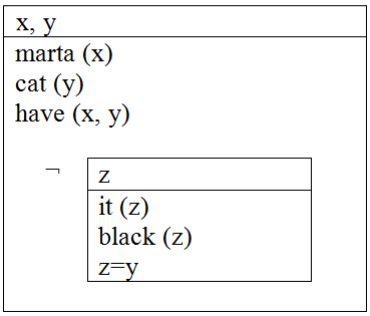
Accessibility

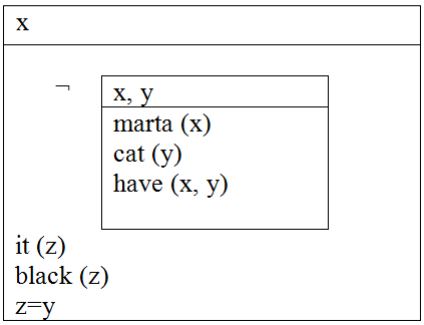
a)

Marta has a cat. It isn't black.



b)

Marta doesn't have a cat. #It is black.



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Work group activity

- DRT implementation of SpL utterances
  - (1) A man built a house. He loved it.
  - (2) The teacher explained chapter 6 but the students didn't understand it.
  - (3) A student left. He was tired.
- DRT implementation of SL utterances
  - – Think of two-sentences signed discourses and provide the corresponding representation in DRT

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DRT applied to SLs

NOW IX1pl WANT 1-EXPLAIN-2 THEME HISTORY PERSON-3_{ip} WOMAN NAME A-N-N-A F-R-A-N-K.
IX3_{ip} WOMAN PERSON-3_{ip} CHARACTER IS/EXACT JEW.
'Now we want to explain the story of Anna Frank. This girl was a Jew.'
[…]
IX3_{ip} HIDE DURING TAKE-OPPORTUNITY EVERYDAY WRITE++.
'During the time she was hidden, she took the opportunity to write a diary.'

a. PERSON-3 b. IX3 WOMAN c. IX3

Localisation of discourse referents

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DRT applied to SLs

x y z
anna frank (x)
explain (1, x)
girl (y)
jew (y)
y = x
she (z)
write-diary (z)
z = x

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Locations as overt variables

- Permanent discourse referents (attached to wide scope quantifiers)
- Non-permanent DRs (attached to narrow scope quantifiers)

a) Celia must write a postcard to Marta from Venice.
a. It must be mailed right away.
b. # It has a picture of Murano on it.

b) Celia wrote a postcard to Marta from Venice. It has a picture of Murano on it.

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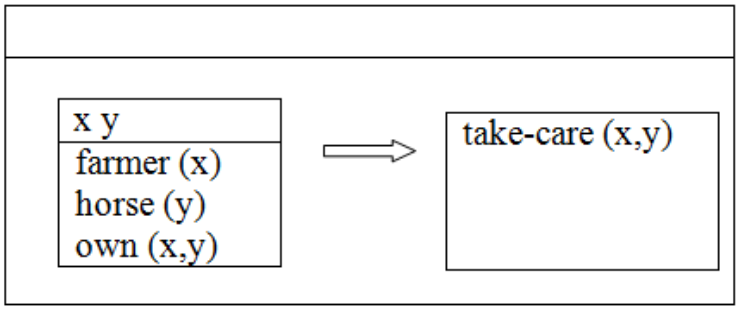
Donkey sentences in LSC

EXAMPLE/IF TOWN FARMER HORSE THERE-IS, SURE 1-TAKE-CARE-3_c.
'If a farmer owns a horse, he certainly takes care of it.'



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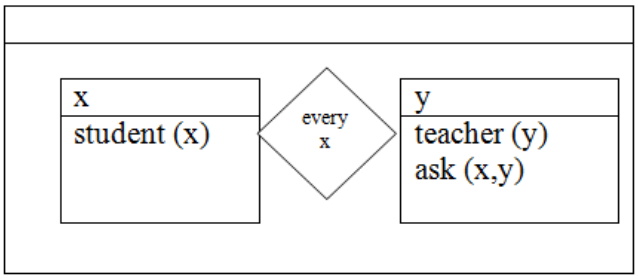
Distributivity in LSC

_____br
STUDENT EACH-ONE+++ TEACHER ASK+++
'Each pupil asked his/her teacher.'



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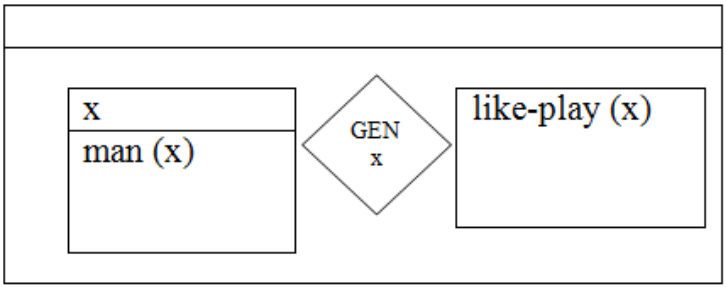
Genericity in LSC

____br

MAN, PLAY LIKE

Men like to play



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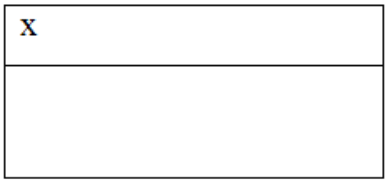
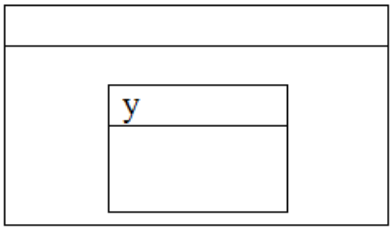
Locations as overt variables with wide scope



a. DR with wide scope



b. DR with narrow scope

Scope representation in DRT

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Semantics and pragmatics of sign languages

Day 2:
Definiteness and Specificity

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SignGram Training School (COST) – University of Hamburg, August 2012

Conversation

- Cat known by the addressee
- Cat not known
- Prominent in the addressee's mind
- Familiar in the conversation

-The cat (definite NP)
-A cat (non-specific indefinite)
- A certain cat (specific indefinite)
- It (pronoun)

2

Definiteness

- **Uniquenness**

  Entities which have a role or a property which is unique. These theories are more focused on logical Semantics

  (Russell 1905; Strawson 1950; Löbner 1985; Kadmon 1990; Abbott 1999)

- **Familiarity**:

  Definite descriptions serve to pick out DRs that are in some sense familiar to the discourse participants

  (Prince 1981, 1992; Heim 1982; Kamp 1981; Kamp & Reyle 1993; Roberts 2003)

3

Uniqueness

Uniqueness indicates that there is one and only one entity of some property. (1) can be read as "there is exactly one x, such that x has the property P".

(1) $\exists!x\ P$

(2)

a. The book is on the table.

b. A book is on the table.

4

Familiarity

- The essential function of definiteness is to signal that the intended DR of an NP is already familiar to the audience at the current stage of the conversation.

(3) A man came in.

x
man (x) come (x)

(4) The man came in.

x
man (x) come (x)

- Indefinites: are associated with a **novelty condition**; its descriptive content is **asserted**.
- Definites have a **familiarity condition**; its descriptive content is **pressuposed**.

5

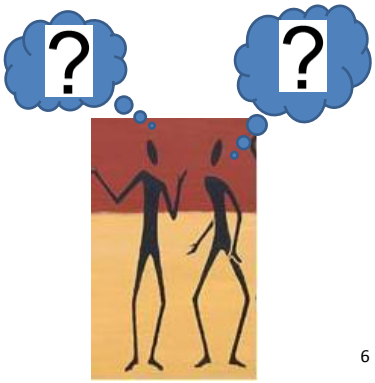
Indefinites

Specific

-Known by the signer but not known by the addressee

Non-specific

-Not known by the signer nor the addressee



6

Specificity marking across spoken languages

	Specific DR	Non-specific DR
English	a cat	a cat
Catalan	un gat	un gat
German	eine Katze	eine Katze
Turkish	iki kiz**i** taniyordum	iki kiz taniyordum
Serbocroatian	jadna mačka	**neka** mačka

7

Definiteness marking in SLs: manual component

- In ASL, an index sign directed to space in a prenominal position is considered to be the formal marking of definiteness

  (Bahan et al., 1995; Bahan, 1996; MacLaughlin, 1997; Wilbur, 2008)
- Indefinite NPs are established on the upper part of the frontal plane with the determiner SOMETHING/ONE

  (MacLaughlin, 1997)

8

Definiteness distinction

Figure 3–3: Articulation of ONE

Figure 3–4: Articulation of SOMETHING/ONE

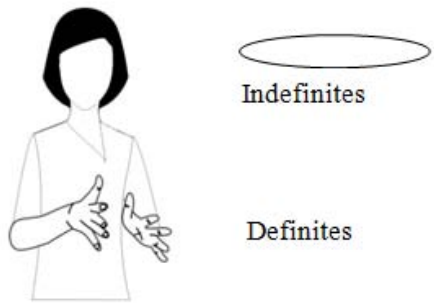
(MacLaughlin 1997)

Definiteness marking in SLs: non-manual component

- In HKSL, while definite determiners co-occur with an eye gaze directed to the spatial location, for indefinite specific DRs eye gaze is directed towards the addressee (Tang & Sze, 2002)

10

Definiteness marking in SLs: spatial articulation



Definiteness marking on the frontal plane in ASL and HKSL

Definiteness in LSC

- No definiteness distinction in LSC w.r.t. the localisation of DR

12

Definiteness in LSC II

- Definiteness distinction in LSC w.r.t. the non-manuals (lower part of the facial expression)

-sucking the cheeks

-pulling the mouth ends down

-sometimes combined with a shrug

13

Definiteness marking

- Is there a definiteness marking in the SLs you study?

- Think about the signed translation of these two sentences? Are the DRs localised?

1. **One woman** was walking on the streets of Hamburg and all of a sudden she realised she had lost her guide.

2. **Angela Merkel** was walking on the streets of Hamburg and all of a sudden she realised she had lost her guide.

14

Specificity in LSC

Specific or non-specific interpretation?

15

Specificity in LSC

Specific

'I want to buy a cat.
It is very obedient.'

'Some of the friends were hidden there for two years.'

Non-specific

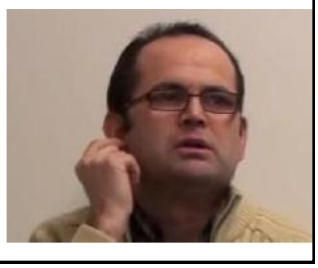
'I want to buy a cat.
It must be obedient.'

'Someone denounced they were there.'

16

Definites and specific indefinites


Non-specific indefinites

Types of specificity

- Wide vs. narrow scope
- Partitive vs. non-partitive DPs
- Identifiable vs. non-identifiable DRs

18

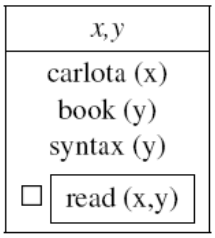
Specificity: Scope

Carlota wants to read a book about syntax...

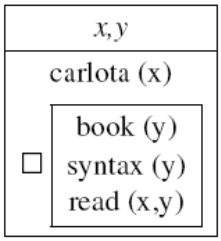
a. But she cannot find it.

b. But she cannot find one.

a.



b.



19

Scope I

An expression α is in the scope of an expression β iff the interpretation of α is affected by the semantic contribution of β.

Scope of DRs

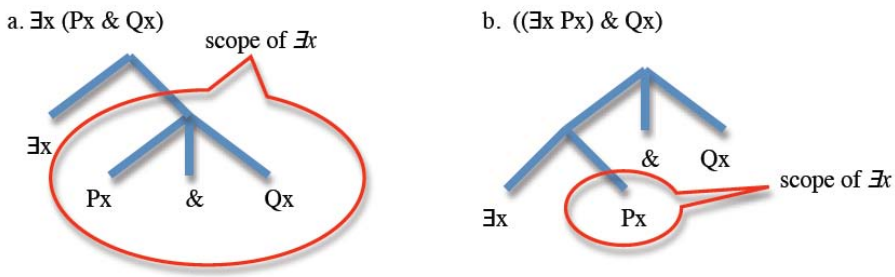
Narrow scope: Op <NP_j .... NP_j>

Wide scope: NP_k ... NP_k ... Op <NP_j .... NP_j>

20

Scope II

Qx is in the scope of the quantifier ∃x in a.
but not in b. (c-command domain)



(Schlenker, 2011)

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Specificity: Partitivity

In Turkish, the presence of accusative case on an indefinite yields a partitive interpretation.

Iki kiz-i taniyordum
Two girl-Acc I-knew
'I knew two of the girls'

Iki kiz taniyordum
Two girl I-knew
'I knew two girls'

(Enç 1991:6)

22

Specificity: Identifiability

a) A student cheated on the syntax exam. It is the lady that always seats on the back row.

b) A student cheated on the syntax exam. I wonder who it was.

23

Specificity marking in LSC

-Specificity marking through spatial localisation

→ Barberà (In press) paper about specificity marking in LSC

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Specificity in LSC: Scope

Wide scope

(11) I want to buy **a cat**.
It is very obedient.

(12)

x y
cat(x)
□ buy (1,x)
it (y)
obedient (y)
y=x

25

Specificity in LSC: Scope

Narrow scope

(13) I want to buy **a cat**.
It must be obedient.

(14)

□ x y cat(x) buy(1,x) it(y) obedient (y) y=x

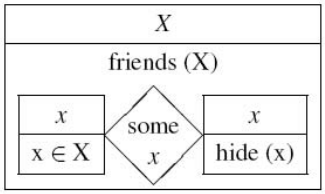
26

Specificity in LSC: Partitivity

Partitive DP

(15) **Some of the friends** were hidden there for two years.

(16)



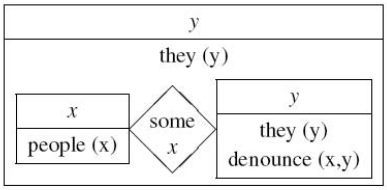
27

Specificity in LSC: Partitivity

Non-Partitive DP

(17) **Someone** denounced they were there.

(18)



28

Specificity in LSC: Identifiability

Identifiable DR

(19) I will offer the pen-drive to **someone** who always works with computers.

(20)

x
pen-drive (x) person (y) work-computer (y)

29

Specificity in LSC: Identifiability

Non-identifiable DR

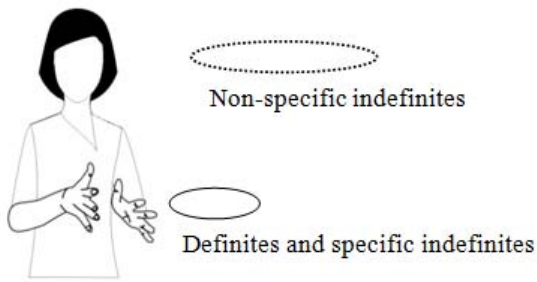
(21) I would offer this book to [**someone** who likes traditional things].

(22)

x
book (x) $\boxed{y \mid \text{person (y)}, \text{like-traditional (y)}}$ □ $\boxed{\text{offer (y,x)}}$

30

Definiteness and specificity marking in LSC: spatial articulation



Definiteness and specificity marking on LSC frontal plane

Grammatical restrictions in LSC

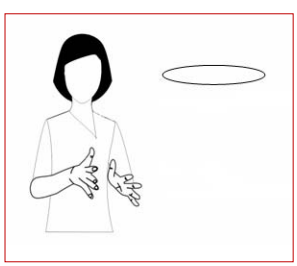
Lower localisation

-Non-anchored common nouns

-Determiners

-Pronouns

-Verbs (agreement, plain)



Upper localisation

-Determiners

-Agreement verbs

Specificity marking across SLs: LIS (Italian Sign Language) I

Specific DR

a) Valentina is looking for a syntax book but she cannot find it.

(Video: SPE 00008 NT 120710)

Non-specific DR

b) Valentina is looking for a syntax book but she cannot find one.

(Video: SPE 00009 NT 120710)

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Specificity marking across SLs: LIS (Italian Sign Language) II

Specific DR

a) I know someone who can help him.

(Video: SPE 00012 NT 120710)

Non-specific DR

b) I need to find someone who can help him.

(Video: SPE 00013 NT 120710)

34

Specificity marking across SLs: LSF (French Sign Language) I

Specific DR

a) I would offer this book to someone who likes literature. But I don't know anyone around who likes it.

Non-specific DR

b) I will offer this book to someone who likes literature. I'm sure he'll enjoy it and try to read it every day.

(Video: SPE YC 00020 20120719)

→ Horizontal plane

35

Specificity marking across SLs: LSF (French Sign Language) II

Specific DR

a) Some of Philippe's colleagues ask him why he is doing research.

Non-specific DR

b) Some of Philippe's colleagues ask him why he is doing research (but I don't know them).

(Video: SPE YC 00019 20120719)

→ Horizontal plane

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Specificity marking

- Is there a specificity marking in the SLs you study?
- Think about the signed translation of these two sentences? Are the DRs localised differently?

1. a) Yesterday **a student** lent me a book. But I don't know him.
   b) Yesterday **a student** lent me a book. He is very smart.
2. a) I know **someone** who can help you.
   b) I need to find **someone** who can help me.

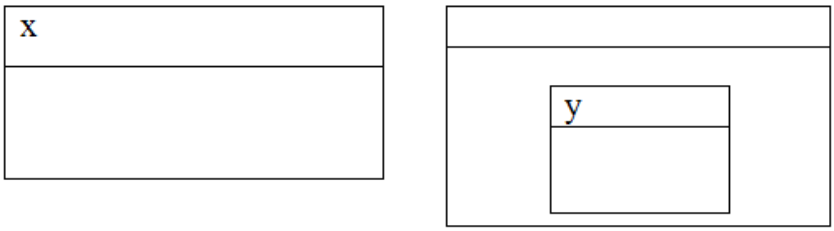
37

Discourse referents and sign space

- Spatial location is the overt manifestation of a discourse referent with wide scope
- Different localisations (depending on the spatial plane) denote semantic/pragmatic distinctions

38

Locations as overt variables with wide scope



a. DR with wide scope b. DR with narrow scope

Scope representation in DRT

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Methodological issues

Day 2:
Wrap up session

Gemma Barberà Altimira

UNIVERSITAT POMPEU FABRA

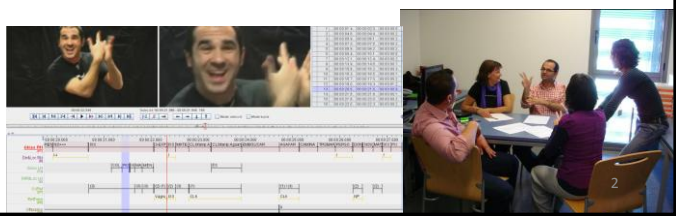
LSC Lab
Laboratori de llengua de signes catalana

SignGram Training School (COST) – University of Hamburg, August 2012

1

Issue 1: The data

- Looking for the right kind of data…
- Differences in using:
  - Data extracted from corpus (discourse)
  - Elicited data (sentences)



2

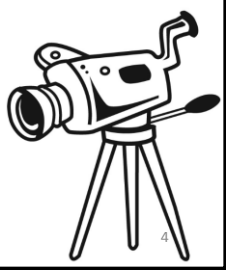
Comments on issue 1: The data

- It depends on the aspect under investigation
  (E.g.: binding theory vs. use of space of plane verbs).
- Isolated sentence are a good prediction for what may be found in "real data".
- Not everything that is in the language is precisely contained within the corpus.
- The observation of the restricted set of data can be a limitation once we want to obtain negative evidence.
- Assumptions of what are the basic patterns of the language are needed.

3

Issue 2: Ideal setting

- Looking for an adequate setting of elicitation…
- Informant:
  – Deaf
  – SL interpreters
- Interviewer:
  – Deaf researcher
  – Hearing researcher



4

Comments on problem 2: Ideal setting

- Deaf researchers as interviewers obtain structures much more native.
- The linguistic background of the informants may affect the output (SL teachers/researchers vs. deaf informants without linguistic knowledge).

5

Issue 3: Stimuli

- Looking for the more appropriate stimuli…
- To obtain the data:
  - Using spoken languages sentences
  - Using pictures/drawings

Comments on issue 3: Stimuli I

- Contexts created by pictures may sometimes not provide the desired output
  - Broad vs. narrow focus

    -What did John give to Mary?

    a. [John gave a book to Mary]$_{BF}$

    b. [A book]$_{NF}$
  - Sentential vs. constituent negation

    -[John didn't give a book to Mary]$_{SN}$

    -[John didn't give a book to Mary]$_{CN}$, but an Ipad.
  - Intermediate scope

    - Each teacher overheard the rumor that **a student of mine** had been called before the dean

    (T > S > that)

7

Comments on issue 3: Stimuli II

- The linguistic background of the informant might help to correctly transfer from one structure to the other.
- Post-evaluation to check whether typical signing is used
  - Use of space
  - Classifiers
  - Non-manuals
  - Idioms

8

Work group activity

1) Read section 3.1 of Pfau (2008) paper.

2) Think of possible solutions/arguments to the three problems presented.

3) Think of a specific research topic and how the aspects just mentioned would be dealt with.

9

Cost Training School
Semantics and pragmatics of sign languages
University of Hamburg, August 2012
Gemma Barberà

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