



ISCH COST Action IS1006 SignGram



Work plan for STSM to Universitat Pompeu Fabra, Barcelona, Spain

Action number:	IS 1006
Title of the Action:	Unraveling the grammars of European sign languages: pathways to full citizenship of deaf signers and to the protection of their linguistic heritage
Action short name:	SignGram
Applicant's Name:	Carlo Geraci
Affiliation:	CNRS, Institut Jean-Nicod, 29, Rue d'Ulm, 75005, Paris, France
Host institution:	Universitat Pompeu Fabra, Barcelona, Spain
Period of staying:	From 08/03/2015 to 14/03/2015
STSM project title:	The semantics of context-dependent possessives

1. Work plan summary

This STSM will focus on some aspects of the meaning of possessive constructions in sign language (SL). Specifically, this STSM will help clarifying whether and how contextual information conveyed by spatial locations (either used as abstract planes or as mental maps) allows for some type of extrinsic interpretations even inside indefinite DPs in SL. If the same picture observed in LSF will emerge for LSC as well, then the claim that *loci* may serve as suitable antecedents for free variables outside the pronominal domain will be corroborated.

At the more general level, the grammar of SL will be shown to differ from that of spoken languages in allowing some aspects of the sign-stream (i.e. locations) to be systematically interpreted as potential values for free variables. If this is proven, then the difference between sign and spoken language in this part of the grammar will be attributed to the different modality. The technical implementation of this newly discovered mechanism will be proposed and further implemented/refined during the mission.

As an outcome for the blueprint, subsections of the ToC and the Manual relative to the semantics of possessives may be implemented after this STSM.

As part of the STSM one talk on the grammar of space will be given.

In the long term, this mission will boost an already active collaboration between the host



institution and IJN.

2. Proposal for STSM

2.1. Background

The meaning of possessive constructions depends by the contribution of the following components: the possessor, the possessum and a relation holding between the two. This relatively naïve picture is complicated by the fact that in certain cases the meaning of the entire construction depends on the lexical properties of the possessum, as in (1)a,b (*inherent interpretations*); while in others it seems to be determined contextually (*extrinsic interpretations*). For instance, the example in (1)c can refer to the cat that John owns, or that sleeps on his laps, or that bumped in his way to the kitchen.

(1)a. John's nephew (kinship)

b. John's leg (part/whole)

c. John's cat (ownership, sleeping on X's laps, crossing X's way)

Within the domain of contextually dependent interpretations, Storto (2003) identifies two further classes, those that are completely dependent on the context like the second and the third interpretations offered for (1)c, and those that are somehow more constrained like *ownership*. Specifically, Storto claims that extrinsic interpretations are ambiguous between a “CONTROL” reading (*ownership* being the default and prototypical case) and a totally free reading (see also Vikner and Jensen 2002). Rather than postulating this semantic ambiguity as part of the lexical meaning as Vikner and Jensen did by resorting to coercion (Pustejovsky 1993), Storto resolves the ambiguity by postulating two silent prepositions one that specifies in its lexical meaning the abstract notion of “CONTROL” (to be further narrowed down by contextual information), the other being a free relational variable whose value is entirely determined by the context. (notice that “CONTROL” possessives are no more *extrinsic* in the strict sense). Evidence for giving a different semantics for the two readings is provided by the different sensitivity to definiteness of the two types of relations. Consider the following examples

Scenario 1: Gianni and Paul are dog-sitters. Gianni and Paul are doing their daily routine at the part.

Scenario 2: Gianni and Paul are jogging in the park, when they are attacked by different groups of dogs.



(2)a. Tutti i cani di Gianni hanno la rabbia

'Every dog of John's were rabid'

b. Alcuni dei cani di Gianni hanno la rabbia

'Some of the dog of John's were rabid'

c. Alcuni cani di Gianni hanno la rabbia

'Some dogs of John's were rabid'

Under Scenario 1, the CONTROL relationship between the possessor and the possessum is available (say it is a particular case of ownership) and all sentences in (2) are felicitous.

Under Scenario 2, the interpretation of the possessive relation is “ATTACK” and it is available for (2)a,b but not for (2)c. The only way to make sense of (2)c is by forcing the default CONTROL relationship of ownership, which however is not supported by the context. Hence (2)c is not felicitous in the given scenario.

Storto takes the facts in (2) as evidence that extrinsic interpretations must satisfy a “novelty condition” (inspired by those proposed in Heim 1982 and subsequent works). This requirement is fulfilled by definite descriptions and partitives, but not by indefinite DPs. When contextual information does not supply evidence for a specific possessive relation, then the use of a possessive construction is infelicitous. If lexical coercion were at play, the CONTROL reading would have been marginally felicitous in (2)c.

2.2. Open issues

The fact that the ambiguity is resolved by postulating two separate and invisible prepositions leaves the following issues open (for reasons of compositionality the contribution of the preposition “di” in (2) is irrelevant, see Storto (2003)):

1. If the semantic difference observed in (2) is a universal property of human language we should expect to find languages which distinguish by morpho-syntactic tools the two extrinsic meanings.
2. The completely free relational variable should be compatible with CONTROL readings, but not vice versa (i.e. CONTROL could be one of the values that can be assigned).
3. If for some reasons the context can minimally satisfy the requirements of the novelty condition, then the equivalent of (2)c should be fine under Scenario 2.

2.3. Probing for morphological evidence: the case of LSF



LSF conveys possessive meaning at least in two ways:

1. by means of a specific sign (glossed as POSS), which is also used as a possessive pronoun
2. by juxtaposition of the possessor and the possessum

As far as I know, juxtaposition can be used in all situations, POSS seems to be less compatible with totally extrinsic meanings. When tested under the two scenarios above, the following pattern emerges:

- (3)a. POSS is compatible with scenario 1 but not with scenario 2
 - b. Juxtaposition is compatible with both scenarios
 - c. (2)c is felicitous even under scenario 2 with juxtaposition
 - d. No attempt at interpreting/resolving (2)c as involving ownership is possible
 - e. any attempt at using POSS with scenario 2 involves an interpretation of CONTROL (in its default form of ownership) and results in infelicitous sentences

Given these facts, I conclude that:

1. LSF morphological distinctions in the possessive constructions seems to be sensitive to the distinction between the two extrinsic interpretations identified by Storto (2003). Whether this is a categorical distinction or a simple preference is still to be determined
2. The grammar of LSF is such that sufficient information is provided to satisfy the novelty condition even when indefinite elements are used
3. The meaning of POSS cannot be easily coerced into that of a free relational variable

The reason why (2)c is felicitous under Scenario 2 in LSF is because in the previous context a location for the two groups of dogs is established in the signing space. This suffices to satisfy the novelty condition and allow indefinite DPs. How this is technically implemented and whether the entire DP would still qualify as a genuine indefinite is still a matter of research at this point. An alternative hypothesis is that a hidden partitive in the LSF equivalent of (2)c is actually present, making the LSF version of (2)c a variant of the LSF version of (2)b. There are some hints on how the space is used suggesting that this is not the case. The meaning of the entire construction also suggests that the DP is indefinite.

2.4. *The case of LSC*

The current STSM will be devoted to:

1. Investigate which of the LSC possessive markers identified in Quer (2008) can be combined



- with lexical and context-dependent possessive constructions
2. Determine their compatibility wrt intrinsic and extrinsic interpretations
 3. Replicate the pattern observed in LSF for the examples in (2).

Specifically, I will test whether previously established *loci* in the signing space (either as mental maps or abstract locations) may serve as a general tool for SL to satisfy the novelty condition and provide reference for the free relational variable, which is ultimately responsible of the meaning of the possessive construction. Of particular interest are also any possible differences in this respect between the possessive pronominal-like element “SU” and the preposition-like element “DE”.

If the same pattern of LSF is replicated in LSC, it will corroborate the idea that the signing space is, in this respect, always semantically meaningful (even in its abstract uses).

3. Selected References

- Barker, Chris. 1995. *Possessive descriptions*. UC Santa Cruz PhD dissertation [1991], CSLI.
- Barker, Chris. 2011. Possessives and relational nouns. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds), *An International Handbook of Natural Language Meaning*, Vol 2., 1110-1130, Mouton de Gruyter.
- Heim, Irene 1982. *The Semantics of Definite and Indefinite Noun Phrases*. Ph.D. thesis, University of Massachusetts, Amherst.
- Partee, Barbara 1983/1997. Genitives – A case study. In Johan van Benthem and Alice ter Meulen (eds.), *The Handbook of Logic and Language*, 464-470. Dordrecht: Elsevier. Appendix to: Theo Janssen, *Compositionality*.
- Pustejovsky, James 1993. Type coercion and lexical selection. In James Pustejovsky (ed.), *Semantics and the Lexicon*, 73-94. Dordrecht: Kluwer.
- Quer, Josep and GRIN. 2008. Structures of possession and existence in Catalan Sign Language. In Pamela Perniss & Ulrike Zeshan (eds.), *Possessive and existential constructions in sign languages*, 33-53. Ishara Press, Nijmegen.
- Storto, Gianluca. 2003. *Possessives in context: issues in the semantics of possessive constructions*. UCLA PhD dissertation.
- Vikner, Carl and Per Anker Jensen 2002. A semantic analysis of the English genitive: Interaction of lexical and formal semantics. *Studia Linguistica*, 56(2):191–226