ISCH COST Action IS1006 SignGram

Work plan for STSM to Institut Jean Nicod, Paris

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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 COST Action

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STSM Title
THE DETERMINER PHRASE IN SIGN LANGUAGE.
UNIVERSAL 20 AND CROSSLINGUISTIC VARIATION

General overview

Word order phenomena are under the microscope of both formal and typological linguists since many years. Crosslinguistically, the variety of orders attested does not equally distribute across all logical possibilities, indeed languages tend to cluster on some orders

both at the clausal level and at the nominal level (a.o. see Greenberg 1963, Hawkins 1983, Kayne 1994, Cinque 1994, and Drayer 2005).

In order to account for order variation several generalizations have been proposed; some of them have been considered universals i.e. valid across languages or language families. However, the empirical ground over which these generalizations are claimed to hold is biased by the fact that all languages under study are spoken languages. Sign languages (SL) are only marginally considered, although the relevant linguistic level (i.e. sign/word order) is sufficiently abstract to allow for a fruitful comparison. Indeed, unmarked orders are also found in SLs, therefore allowing for classifications under the same flag used for spoken languages. SLs can be head-initial like American Sign Language (ASL, Neidle *et al*., 2000) or head-final like Italian Sign Language (LIS, Cecchetto *et al*., 2006). To what extent typological universals proposed for spoken languages are also valid for SLs is still an open issue.

In this short term mission (STSM), I would like to explore the syntax of the Determiner Phrase comparing two sign languages, namely Italian sign language (LIS) and French sign language (LSF). The investigation will open an understudied domain of research in the syntax of (European) sign languages. The outcome of the STSM will be relevant for the working group of syntax (WG2). In addition to this main goal, the STSM will include a specific training on formal semantics. Consequences for the syntax-semantics interface will be also investigated. The outcome of this study will be relevant for the working group of semantics (WG3).

Outline of the STSM

The primary goal of this STSM is starting a project that aims at identify structural relations in the DP of two historically related SLs, LIS and LSF. The STSM unfolds according to two major lines: an empirical line and a theoretical line.

As for the empirical line, one goal is to define the variation attested in the two languages. At clausal level both languages show a preferred order, although a lot of variation is found. For both languages it has been originally claimed that the basic order was SVO (see Laudanna and Volterra 1991 for LIS and Beugnette and Billand 1981 for LSF). However, further studies showed that both LIS and LSF have SOV as the basic (underlying) word order and that other orders are derived via syntactic movement (see Geraci 2002 for LIS and De Langhe et al. 2003 for LSF). Still, the debate on clausal word order in LIS and LSF is

open. A preliminary corpus study confirmed that SOV and SVO are highly attested in LIS and showed that these orders are influenced by those factors indicated in works by both Laudanna and Volterra 1991 and Geraci 2003. As for the syntax of the DP, recent works suggested that a good amount of variation is attested in LIS (Branchini 2006, Bertone 2009, Brunelli 2011 and Mantovan and Geraci 2012). However, no information is available on the syntax of the DP in LSF.

At the empirical level the questions to be answered are: to what extent variation is admitted in the two languages? Are there similarities in the DP syntax of the two languages? Is order variation constrained by the semantic class of the adjectives?

Methodologically, data on LIS and LSF will be collected by both analyzing corpus data and by systematic elicitation of specific syntactic configurations.

As for the theoretical line, this study poses a central question on the applicability of typological universals found in spoken languages to the domain of SLs. Specifically, Greenberg's Universal 20 (U20) will be under investigation here. Previous work on Taiwan sign language (Zhang 2007) suggests that the generalizations emerging from U20 can be extended to SLs. In recent works by Cinque (2005, 2010) and Abels and Neeleman (2009), the U20 has been reformulated within the generative tradition. Cinque's works develop under a cartographic approach, while Abels and Neeleman take a more minimalist approach. An interesting aspect of Cinque's proposal, which is also assumed in Abels and Neeleman'works, is that the adjectival class is not considered as a monolithic category. Indeed, semantic distinctions across the adjectival class correspond to different hierarchical positions, which are reflected into fixed relative order among adjectives and with respect to the noun inside the DP. Both approaches are well equipped to deal with crosslinguistic variation; however, none of them considers intralinguistic variation in detail. In both works, different order options within a language are related to semantic distinctions. In this respect the case of SL poses a huge challenge to U20 and its reformulations in the generative tradition in that word order variability seems to be much less constrained by the semantic classes of the adjectives. Considering the case of LIS, preliminary work (Mantovan and Geraci 2012) showed that adjectives of the same semantic class are found either prenominally or postnominally. However, this variability does not seem to be random; rather it seems to be constrained by linguistic principles connected with the U20. An aspect to be investigated is whether the fine-grained version of the U20 makes the correct predictions when the relative order among adjectives of different semantic classes is considered.

At the theoretical level the questions to be answered are: is linguistic variation in the DP domain the outcome of a random phenomenon or is it rather something that can be

explained through specific linguistic motivations? To what extent LIS and LSF conform to U20 once finer-grained distinctions among the adjectival classes are considered? Do crosslinguistic generalizations of U20 have a counterpart once one looks at intralinguistic variation?

Methodologically, despite the fact that Cinque's proposal and Abel and Neelemen's proposal are developed under two different formal frameworks, they largely make the same predictions in terms of crosslinguistic variation. However, things can be different for intralinguistic variation.

Indeed, this latter type may be constrained by processing and complexity factors (Hawkins 2004). For instance, less complex structures or structures that are easier to parse should be preferred by signers (as a reflection of the processing-to-grammar-hypothesis, Hawkins 2004). In this respect, the two theories propose, for the same linear order, structures that may have different complexity in terms of:

- numbers of movements required;
- types of movements (N movement, NP movement and pied-piping);
- number of nodes needed to generate the minimal structure.

Following this line, the two theories may make different predictions in terms of how intralinguistic variability should pattern. The systematic investigation of the syntax of the DP in LIS and LSF may help to disentangle which of the two theories makes the correct predictions.

To conclude, this study would require close collaboration with the professors and researchers working within the LINGUAE team in the field of SLs (a.o. Carlo Geraci, Philippe Schlenker, Victor Homer, and Mirko Santoro). Collaboration with LSF native signers is also needed in order to elicitate data and obtain acceptability judgments.

Of course, after the STSM is over, the fine-grained data collected in Paris should be double-checked with LIS informants using similar experimental techniques. These results are expected to contribute to a further understanding of the issue.

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