ISCH COST Action IS1006 SignGram

Work plan for STSM to Sign Lab at the University of Göttingen

Sign 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 COST Action

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STSM title: The role of sign space in scalar implicatures and existential statements in sign language

Introduction

Since the beginnings of sign language (SL) linguistics research, it has been argued that space undertakes two functions, namely a descriptive (i.e. topographic) and a non-descriptive one (i.e. syntactic) (Poizner et al., 1987). The descriptive function is used to express spatial relations among objects and it is represented by meaningful locations that exploit the iconic properties of the visual-spatial modality (Emmorey & Falgier, 1999; Pernis, 2007). The non-descriptive function, in contrast, is an abstract use of space in which entities are localised arbitrarily to identify the arguments of the verb (Lillo-Martin & Klima,

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1990). While it is generally accepted that classifiers (CLs) use space descriptively, it has not been considered so far whether they also use it non-descriptively by implying an existential statement and hence denoting that an entity x is present in the discourse model w. The primary goal of this project is to test whether CLs localised in sign space, besides having a descriptive function, also have a non-descriptive one. The main hypothesis is that CLs conflate two semantic structures: a locative and an existential one. On the one hand, a CL localised in space predicts that an entity x is at a deictically determined location y. On the other, it also denotes an existence statement where it is predicated that an entity x exists in the current model w. Our main aim is to prove the second hypothesis and in order to do so scalar implicatures and exhaustive listings using CL predicates will be experimentally tested.

Background

It has been claimed that existential sentences in some languages conflate two structures, namely an existential statement and a locative predication (cf. Zamparelli (1996) for Italian and Ziv (1982) for modern colloquial Hebrew). One way to denote existence is by means of exhaustive listings (Birner & Ward, 1995; Leonetti, 2008) since the existence of the entity needs to be presupposed when uttering the exhaustive list. I propose that when associating an entity to sign space, an existential statement is uttered. However, this does not only occur with non-descriptive localisations, but also with descriptive ones. The spatial establishment of a CL denotes that an entity x exists in the model w. This context is even clearer with exhaustive listings expressed with localised CLs.

Exhaustive listings are the right context to test such hypothesis. Some analysis related to scalar implicatures (SIs) consider exhaustivity as using the same analysis as for standard SIs (Schultz and Van Rooij 2006; Spector 2007; Chierchia, Fox, and Spector 2008). In SLs, exhaustive listings are mainly expressed with CLs localised in space. In fact, as proved in an ASL experiment by Davidson et al. (2009), there is a different mean acceptance between paradigmatic cases of SI (expressed with quantifiers and numerals) and exhaustive listings (expressed with localised CLs), concluding that sign space may be influential in these results. However, the crucial role sign space plays in SIs has not been tested so far.

Project

This study aims at analysing the interpretive properties of localised CLs. SI tests will be designed in a pilot study for the purpose of proving whether an existential statement is also present in localised CLs. The underlying research question is the following: Is a scalar implicature generated more easily when a classifier is present? A calculation of implicatures on different standard Horn scales in signed sentences, as well as signed sentences containing lists which often trigger exhaustivity implicatures will be used on a magnitude estimation experiment (Chemla, 2009). We will test paradigmatic cases of SIs (1) where the numeral two appears for a picture with three students seated, as well as exhaustive listings generally expressed with localisation of CLs (2) where a pen-drive appears in the picture but it is not an item in the listing. These contexts may be rejected or not on the basis of informativity.

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(1) There are two(/three) students seated
(2) There is a book, (a pen-drive) and a mug on the table

In order to test the importance space plays in rejecting or not scalar implicatures and exhaustive listings, the acceptance rate will be tested in contexts (1) and (2) where a CL may be present or not in the sentence.

	+ Classifier	- Classifier	
SI –numerals			-implicature
Exhaustive listings			+implicature
	+implicature	-implicature	

We hypothesise that the SIs will be more frequent (i.e. the acceptance will be lower) in contexts of exhaustive listings, and also mainly in contexts where a CL is introduced, which is precisely needed for the existential statement.

The results of this experiment will provide strong arguments to show that CLs include a descriptive and, more interestingly, a non-descriptive function and hence that the use of space of CLs is part of the grammatical semantic composition of the sentence (in line with Chierchia et al. 2008), and more concretely when conveying an existential statement. Also, a deeper understanding of SIs in sign language will be achieved. In this STSM the pilot study for this experiment will be designed, which will be later used for parallel crosslinguistic experiments, namely with French Sign Language (LSF) and Catalan Sign Language (LSC).

The results of this STSM will shed new light on the study of the grammatical use of sign space, and they will contribute to a better understanding of its role at the semantics/pragmatics interface. It will also result into a pilot study, which will be available for the application to other SLs. Finally, it will provide a broad basis for the definition of inventory grammatical features, which will be treated in WG3 of the Action, and that will contribute to the definition of the agenda of the semantics/pragmatics chapter. The theoretical and experimental orientation of this STSM will also help developing adequate elicitation materials and suitable on-line experiments for visual-spatial languages.

Planned methodology

4 weeks (July 2nd – 31st 2012)

Week 1-2 Preparation of sentences and materials; methodological and theoretical discussion
Week 3 Set up of experiment; recording of materials
Week 4 Testing of the experiment