Modality and meaning: Plurality of relations in German Sign Language

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Abstract

Numerous unrelated spoken languages, i.e. languages in the auditory-oral modality, have been shown to exhibit systematic polysemy in the domain of reciprocity. Cross-linguistically, reciprocal markers not only encode 'true' reciprocity, but are also commonly used to encode spatial and sociative (collective) functions, among others. These functions are subsumed under the notion of "plurality of relations". By contrast, German Sign Language, a language in the visual-gestural modality, does not use one semantically underspecified reciprocal marker to express these three functions but rather employs distinct morphosyntactic and lexical strategies. A crucial factor motivating this typologically interesting difference between German Sign Language and many auditory-oral languages is the unique potential of visual-gestural languages to use the signing space to express grammatical and semantic information. It is thus not surprising that other sign languages pattern with German Sign Language in this respect. Hence, the cross-linguistic, and cross-modal, investigation of plurality of relations reveals new insights into the impact of language modality on the expression of meaning.
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1. Introduction

In this paper, we focus on a specific area of semantics, namely the expression of plurality of relations (PR). PR describes situations in which multiple entities ($n \geq 2$) enter into a relation with each other such that (typically) every participant/entity is at the same time actor and undergoer (Lichtenberk, 1985, 2000). Such situations cover semantically different kinds of relations between the participants such as, for instance, reciprocal, sociative (collective), and spatial relations. Of interest in the present context is the fact that spoken languages commonly use reciprocal markers to express all three types of relations. Hence, reciprocal markers in spoken languages are characterized by systematic polysemy, as is illustrated by English *each other* in (1).

(1) a. The children love **each other**.   (reciprocal)   [English]
     b. The children play with **each other**. (sociative)
     c. The books lie next to **each other**.   (spatial)

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As we will show, German Sign Language (*Deutsche Gebärdensprache*, DGS), by contrast, does not use one semantically underspecified reciprocal marker to encode the three functions of PR but rather employs quite different morphosyntactic and lexical strategies. Interestingly, none of these strategies involves a pronominal reciprocal marker (we will see below that reciprocal markers are only rarely used in sign languages in general). The DGS pattern is thus in striking contrast to the systematic polysemy of reciprocal markers found across spoken languages.

This paper investigates the morphosyntactic and semantic analysis of plurality of relations in DGS. We compare the strategies found in DGS to the strategies described for spoken languages. In addition, we add data from other sign languages that show that the DGS strategies are quite typical of sign languages. The discussion suggests that sign languages generally use different strategies to express plurality of relations than spoken languages. This general difference seems to be related to differences in modality.[1] Therefore, this paper also contributes to the recent discussion of the impact of modality on the interface between semantics and morphosyntax. Up to now, linguistic studies have mainly discussed modality-specific formal grammatical properties of sign languages (cf. Aronoff et al., 2005; Meier, 2002, 2012). However, with some notable recent exceptions, the impact of modality on semantics and the interface between semantics and morphosyntax has not been analyzed in detail (cf. e.g. Barberà, 2012; Hübl, 2014; Steinbach and Onea, 2014; Perniss et al., 2015; Quer and Steinbach, 2015; Schlenker, 2011, 2014; Schlenker et al., 2013; Wilbur, 2010; Zucchi, 2009, 2012).

The analysis of the morphosyntactic realization of plurality of relations in DGS also contributes to the investigation of the impact of modality on meaning, by addressing modality-dependent and modality-independent aspects of the expression of plurality of relations in DGS in particular and sign languages in general. We will show that DGS does not make use of one (pronominal) strategy to encode different types of PR, but rather systematically employs various function-dependent strategies; these strategies involve verbal and adverbial markers. We include in our discussion the three previously mentioned basic functions of PR, that is, the reciprocal, sociative, and spatial functions. While we illustrate the basic patterns with examples from DGS, we also show that, minor differences notwithstanding, similar patterns are attested in other sign languages, an observation that suggests that we are, in fact, dealing with modality-specific patterns.

In the next section, we briefly introduce the different functions of PR in spoken languages. Sections 3–5 discuss how the three types of PR we focus on are morphologically and syntactically realized in DGS and compare the patterns found in DGS to patterns described for spoken languages. In addition, we provide a semantic analysis of PR in spoken and sign languages. We show that DGS crucially differs from most spoken languages in that it uses three different strategies to express the different types of PR. Reciprocity is encoded by a special type of verbal reduplication, the application of which is constrained by phonological and morphological properties of the verb stem (section 3). By contrast, the sociative meaning is not expressed by a morphological modification of the verb but by means of the lexical sign TOGETHER, which cannot be used in true reciprocals (section 4). Finally, the spatial function involves yet another strategy: the spatial relation of objects can be directly represented in the signing space by means of spatial distributions of a classifier handshape (section 5). Taken together, the data reveals that the mapping between semantics and morphosyntax in DGS is typologically interesting in that no polysemy is attested in the area of PR. In section 6, we turn to a general discussion of the influence of modality on meaning, adding to the picture patterns from a number of other sign languages. We argue that a crucial factor motivating the attested differences between spoken and sign languages is the unique potential of sign languages to make use of the signing space for expressing morphosyntactic relations and semantic spatial configurations. Finally, section 7 summarizes the main findings of our study.

2. Plurality of relations

Numerous unrelated spoken languages have been shown to exhibit systematic polysemy in the domain of reciprocity (Nedjalkov, 2007c). As has already been shown in (1), cross-linguistically, reciprocal markers not only encode 'true' reciprocity, but are also commonly used to encode sociative (collective) and spatial functions. This is further illustrated by the Itelmen examples in (2) where the reciprocal marker (the verbal prefix *lo-*) marks all three functions (Volodin, 2007:1830f; note that *-ka* is an intransitivizer and *-s* an infinitival suffix).

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[1] In sign language linguistics, the term ''modality'' is commonly used to refer to the modality of signal production and perception, that is, the auditory-oral modality of spoken languages versus the visual-gestural modality of sign languages. Three important modality-specific properties of sign languages which affect the linguistic structure and which have been discussed extensively in current studies on modality and meaning, are (i) the use of a three-dimensional signing space; (ii) the impact of iconicity on linguistic meaning, i.e. the potential of signs to iconically represent (properties of) their referents; and (iii) the interface between gesture and sign language (cf. Armstrong, 2011; Taub, 2012; Aronoff et al., 2005; Meier, 2002, 2012; Pfau and Steinbach, 2011). In this paper, we mainly focus on the first aspect, that is, the semantic use of the signing space.