

Chapter 9. *WHAT ABOUT?* FICTIVE QUESTION-ANSWER PAIRS FOR
NON-INFORMATION-SEEKING FUNCTIONS ACROSS
SIGNED LANGUAGES*

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[To appear in: Pascual, E. & S. Sandler (eds.). *The Conversation Frame: Forms and Functions of Fictive Interaction*. Amsterdam/Philadelphia: John Benjamins]

This chapter deals with the multifunctional use of the question-answer sequence, which constitutes a prototypical conversational and intersubjective structure, across signed languages. Specifically, I examine the use of polar and content questions, and their subsequent answers, for the expression of non-information-seeking functions, namely topicality, conditionality, focus, connection, and relativization. The study is based on cross-linguistic data of 30 signed languages, supplemented with a qualitative analysis of Catalan Sign Language. The analysis shows that the question-answer sequence has been grammaticalized and constitutes the unmarked or by-default option to encode these linguistic functions. I argue that the pattern forms a highly schematic symbolic unit and that the specific linguistic constructions, which are instances of fictive interaction, form a complex network.

Keywords. Catalan Sign Language, conditionality, connectives, focus, relativization, topicality.

* This research was partially funded by a Vidi grant by the Netherlands Organization for Scientific Research, awarded to Esther Pascual (276.70.019). In addition, the work is embedded in the research group *Grammar and diachrony*, University of Barcelona (AGAUR 2014SGR994) and the research project FFI2013-43092-P (Spanish Ministry of Economy and Competitiveness). I would like to thank Esther Pascual and two anonymous reviewers for feedback on an earlier version and J.M. Segimon for allowing me to reproduce his image.

1. Introduction

Face-to-face conversation has been argued to be fundamental in the phylogenetic, diachronic and ontogenetic dimensions of the human communicative action (Vygotsky 1934; Bakhtin 1963; Tomasello 2003; Enfield 2008; Zlatev et al. 2008; Langacker 2013). As a matter of fact, the interactional nature of language constitutes the key factor that defines its conception across disciplines. Linnell (2012) adds *dialogism* (or *contextualist interactionalism*) to the three basic approaches to language in the history of language sciences discerned by Steffensen (2009) (*formalism, internalism-cum-individualism*, and *social structuralism*). Dialogism emphasizes the importance of language conceptualized as a resource for sense-making, emerging from interaction between people, and between people and the world (Linnell 2009). Language, thus, is considered a relational and intersubjective phenomenon. Moreover, dialogical theory looks upon interactions and context as basic aspects of language use and communication. This approach takes a fundamentally developmental perspective, considering language as “intimately connected with, and partly derived from capacities of perception, cognition, communication, action and emotion, as well as from culture” (Linnell 2012, p. 112, also see Langacker 2013).

In this vein, Pascual claims that discourse and linguistic structures “emerge from an intrinsically conversational mind” (2014, p 3). This

conversational basis is manifested in a conceptual phenomenon, a communicative type of fictivity (Talmy 1996), coined *fictive interaction*. Fictive interaction is defined as the use of the ordinary conversational structure to model cognition, discourse, and language (Pascual 2014). A particular case of fictive interaction is revealed in the process by which interactional structures become grammaticalized as obligatory or unmarked constructions, as crosslinguistic research in spoken languages has shown (Jespersen 1940; Haiman 1978; Herring 1991; Li and Thompson 1976; Geluykens 1992 among others) (See chapter 2 in Pascual 2014 for an overview).

These grammaticalization processes reveal the importance of conversation in providing skeletal linguistic structures that acquire multiple functions and that fictive interaction is a pervasive phenomenon, especially in languages used only (or mostly) in interaction, as opposed to languages also regularly used in writing (Pascual 2014, ch 2, 4).

Since signed languages are embodied linguistic systems used (mainly) in situated face-to-face conversation, we would expect to find interactional structures in their core grammar and discourse.¹ A special feature of signed languages is that they are frequently expressed across

¹ signed languages have been increasingly used in non-face-to-face contexts in the last years, thanks to new technologies and tools (internet platforms, video-blogs, etc.). In these cases, the functional use of signed texts recorded in video is equivalent to some uses of writing for spoken languages

multimodal dimensions, with a high degree of interdependency between the levels. They involve dynamic movements and locations in three-dimensional space and transmit linguistic (discrete) and gestural (gradient) information sequentially or simultaneously via several clusters of channels: handshape movements, facial expressions, head position, and body postures (Liddell 2003).

I hypothesize that SL users take advantage of the (main and original) mode of communication and recruit and exploit the resources available in face-to-face interaction to build their grammars.

The properties discussed so far motivate my research questions: (i) Are the sources for grammatical structures based on multimodal face-to-face interaction properties, such as gestures? (ii) Do signed languages exhibit prototypical conversational structures for the encoding of grammatical functions? Specifically, I focus on the use of the question-answer sequence for non-information-seeking functions, namely topicality, conditionality, connective function, relativization and focus across signed languages. The chapter is structured as follows. The following section provides information on methodological issues. Section 3 examines the formal encoding of questions across signed languages. The rest of the chapter is divided according to the linguistic functions addressed: topicality (§4), conditionality (§5), focus (§6), connectives (§7), and relativization (§8). Sections 9 and 10 presents the discussion and the conclusions.

2. Method

This study combines a typological account and language-specific analysis of Catalan Sign Language (henceforth LSC²), an understudied SL used by the Deaf and Deaf-blind community in Catalonia. The bibliographic study includes the available information on the issues addressed in 30 signed languages (see Table 1 for the list of languages). The research on LSC is based on a small-scale corpus gathered by myself. The data were collected from 20 deaf adult signers. They are all native or early-signers, that is, they either come from a family with LSC as their native language in the last two or three generations, or from a hearing family and acquired LSC before their sixth birthday. They consider LSC as their first language and they identify as members of the Deaf community.

The corpus combines naturalistic and elicited data. The naturalistic data come from 20 video posts on a personal blog, from a second-generation signer, a leader in the Deaf movement considered a signing model by the community. The corpus also comprises 20 videos from 12 signers – posted on an institutional Deaf website – including news, documentaries, and narratives. The elicited data comprises 3 semi-structured interviews and a

² Signed languages are usually identified by acronyms in the original spoken language, i.e. NGT stands for *Nederlandse Gebarentaal*, Sign Language of the Netherlands. Throughout the chapter I refer to the languages by the acronym. See Table 1 for a list of the languages and the acronyms.

conversation between friends, and 4 narratives based on the *Frog story* and the *Pear Story*.

3. Questions in signed languages

Across signed languages, questions are encoded suprasegmentally by nonmanual marking fulfilling a range of functions similar to intonation in many spoken languages since it signals the illocutionary force of an utterance (Sandler et al. 2011). Signed languages display a prosodic level of organization similar to the spoken modality and this is distinct from syntactic structure (Sandler 2010; Crasborn and van der Kooij 2013).

With respect to interrogatives, all 35 signed languages reported in the typological study edited by Zeshan (2004), employ nonmanual marking for polar questions. They display great regularity and involve a similar combination of distinct features, including: eyebrow raising; eyes wide open; eye contact with the addressee; head-forward position, and forward body posture.

Although not universal, the most consistent marker across signed languages is eyebrow raising. However, in most signed languages studied so far, it does not seem to have fully grammaticalized since facial markings do not appear to be obligatory (Deuchar 1984; Bouchard and Dubuisson 1995; Báez and Cabeza 2002; Johnston and Schembri 2007). Polar questions may also be marked by question particles, as in LSE (Báez and Cabeza 2002).

However, these are never obligatory for all questions and some signed languages lack them, such as LIU (Hendrichs 2008).

In LSC, polar questions are generally marked only by nonmanual articulators, such as eyebrow raising and a forward head nod. See (1), which lacks syntactic marking (see the transcription conventions in Appendix 1).³

(1)

Interviewee: BE.OBSESSED p g:palm.up BE.NERVOUS p (SMOKE-
WITH.PLEASURE / IX) p g:palm-up(2h)

Interviewer::palm.up [PRO.2 THINK FUTURE CAN QUIT]-br/hf [NOT]-neg/lefth

Interviewee:fac.exp.uff PRO.1 KNOW-NOT

Interviewee: ‘I have a craze (for smoking). (gesture: What can I do?)
(When) I’m nervous, I smoke (and then) I get relax. (gesture: What
can I do?)’

Interviewer: ‘Do you think that you will be able to quit smoking in the
future? Or not?’

Interviewee: (gesture of uncertainty) ‘I don’t know’.

LSC displays a pragmatically marked polar interrogative construction formed by a declarative clause (or an interrogative) followed by a question marker (YES.NOT).

Content-question nonmanuals are different from polar questions in most signed languages (Zeshan 2004): low and furrowed brows constitute

³ For reasons of space and anonymity, pictures from several examples are not included.

the marking in ASL (Baker-Shenk 1983; Liddell 1980), LSA (Veinberg and Massone 1992), ISL (Dachkovsky and Sandler 2009), NGT (Coerts 1990), etc. Other languages select different markings (See Göksel and Kelepir 2013 for TID).

Although nonmanual marking of content questions is frequent across languages, it is not obligatory and the facial expression may remain neutral (Johnston and Schembri 2007; Deuchar 1984; Báez and Cabeza 2002, etc.) On the other hand, in some signed languages the nonmanual marking can take scope over only a portion of the question, even just a sign.

Overall, question marking in signed languages can be summarized as follows: (i) questions are commonly marked by the nonmanual channel and boundary markers; (ii) nonmanual marking for polar questions differs from content questions; (iii) signed languages may differ with respect to the form and frequency of the markers employed; and (iv) eyebrow raising is the most consistently used marker for genuine polar questions.

4. Topicality

A grammaticalized topic-comment structure is commonly used in signed languages. In LSC and across signed languages eyebrow raising signals the two classical types: aboutness and scene-setting topics, where topics show maximal marking by syntactic-prosodic means: their sentence

initial position, pause, a nonmanual feature (eyes widened and eyebrow raising) and followed by the comment, as shown in (2).

(2)

[ORGANIZATION OF FESOCA ENTITY]_{rb} [IX]_{nod} [ANSWER SAY WANT-2h
WHAT]_{furrow brow +head tilt backward} [PERSON-PLU BE DEAF] OR HEARING
GENERAL CATALONIA (ZONE / ALL.CATALONIA)_{rb} [A.LOT
THANKS]_{fb} [REASON]_{rb} LIKE [GO IX]_{nod}

Lit. ‘*The Catalan Federation for the Deaf?* It wants to say thanks a lot to all the Catalan people, Deaf or hearing, for coming [to the demonstration]’.

‘The Catalan Federation for the Deaf wants to say thanks a lot to all the Catalan people, Deaf or hearing, for coming [to the demonstration]’.

A second possibility, a minimal marking, would consist of only a pause between the topic and the comment. Also, the similarities between questions and topics are not just formal, but also related to their use. Thus, questions can be used to topicalize constituents as in (3).

(3)

[pro.2 son two] p gesture: palm.up p PRO.2 SAME HAVE NORMS 1-OBLIGATE-3
PRO.3L SMALL REFUSE DO MAY

Lit. ‘*Do you have two kids?* Right? You impose some norms that obligate them. Can the smallest one refuse to (accomplish them)?’

Note that the first question, followed by the palm-up gesture signaling a positive answer, is used to express the sentence topic and it is not a genuine question since this dialogue takes place between two relatives.

Based on the available data, topic marking in signed languages can be characterized as follows: (i) topic-comment are commonly marked similarly to polar questions (mainly eyebrow raising and wide opened eyes) and boundary markers; (ii) topics are not marked consistently; (iii) different types of topics may be signaled by subtly different markers; (iv) and signed languages may differ with respect to the form and frequency of the markers employed (Bergman 1984, 1994; Engberg-Pedersen 2002; Johnston and Schembri 2007; Cruz-Aldrete 2008; Herrero 2010; Janzen 1999; Sze 2011; Vermeerbergen et al. 2007; Jantunen 2007; Milković et al. 2007; Sandler et al. 2011; Pfau and Kimmelman in press Takkinen et al. to appear, etc.). Significantly, in most of the signed languages studied until present, topic-comment constructions resemble intersubjective structures such as polar question-answer structures (maximal marking), or even a dialogical bi-turn structure (minimal marking).

5. Conditionals

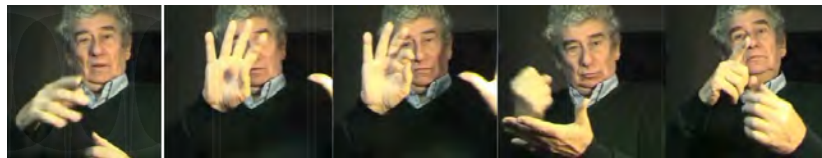
Across signed languages conditional sentences consists of a bi-clausal structure in which a nonmanual configuration – quite similar to the marking for polar questions and topics – spreads over the protasis with an intonational break, followed by the unmarked apodosis. LSC is no exception to this general pattern. A conditional particle can be used in clause-initial

position (as IF or EXAMPLE in LSC), as in (4a), but is generally optional, and the nonmanual alone is sufficient to mark the condition, as in (4b).

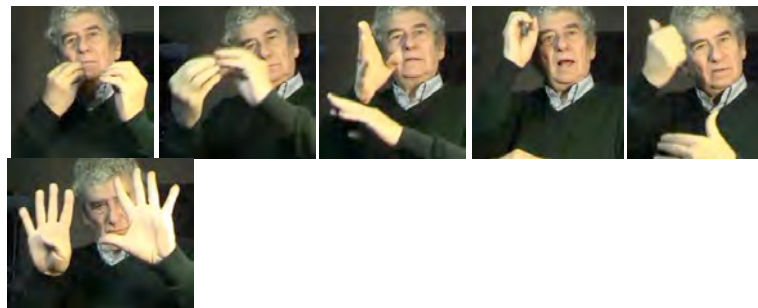
(4)



a. [EXAMPLE PRO.2 ASSOCIATION BIG]-hf/br pause



b. INDEX [THERE.ARE 90 MEMBER]-hf/br



c. GET DELEGATE GO ASSEMBLY DEAF.FEDERATION 9

Lit. *If your association is big?(Say) there be 90 members? (Then), in this case it gets delegates going to the (general) assembly 9.*

'If your association is big, say it has 90 members, then, it gets 9 delegates going to the general assembly'.

The scope of the nonmanual marking spreads over the protasis of the clause.

This bi-clausal structure is found crosslinguistically (Fridman 1996; Sutton-Spence and Woll 1999; Zeshan 2000; Johnston and Schembri 2007; Dachkovsky and Sandler 2009, Morales-López et al. 2012, etc.), although slight differences have been reported for some signed languages (Liddell 1978; Hendriks 2008).

Thus, SL crosslinguistic data reveal: (i) formal similarities between questions, topics and conditionals with regard to nonmanual marking (mainly eyebrow raising); (ii) syntactic similarities (i.e. topics and conditionals appear in initial position and the reverse order would lead to ungrammaticality); (iii) the unmarked or by default marking corresponds to the nonmanual, and manual marking is optional. Thus, intersubjective structures are the unmarked or by-default linguistic strategy to encode topics and conditionals across signed languages.

6. Focus marking

LSC signals focus through manual particles, such as ‘even’ (scalar value), ‘also, as well’ (additive), and ‘only’ (restrictive) (as noted for ASL, DGS, NGT and ISL (Wilbur 1994, Wilbur and Patschke 1999; Herrmann 2010) and stress (See in Wilbur and Patschle 1998 for ASL).

Formally, the prosodic marking associated both with manual focus particles and with stress is similar to polar questions and topics (i.e. eyebrow raising, wide eyes and a forward/backwards/upward head tilt), see (5).

(5)



... CONCEPT CULTURE SURE VERY DIFFERENT pause



[AND ALSO]_{headback/BROWRAISE}INDEX.future[DEAFIX.future [INDEX.future]_{forwad/browraise} ...

Lit. [...] the concept (of deafness), culture... will be very verydifferent. *And also?*In the future, the deaf? In the future? ...
 ‘[...] the concept (of deafness), culture... will be very very different. And also, in the future, the deaf in the future...’

In (5) the chunk [AND ALSO] functions as a contrastive focus with an additive meaning and it is marked with eyebrow raising but also with a backward lean with the upper body and a backward head tilt. Body leans have been described for ASL (Wilbur and Patschke 1998) and NGT (Van der Kooij et al. 2006).

Another constructions functioning as focus in LSC, also relevant to our research, is a question-answer sequence, with the prosodic marking corresponding to polar questions (eyebrow raising), even when no actual question is made, see (6).

(6)

[LAST]_{fb} WEEK [TAKE PLACE]_{rb}28-S[SEPTEMBER] []_{blink}[RELATE.TO WHAT]
fb +head tilt backward BE DAY WORLD PERSON-PLU DEAF
Lit. ‘Last week, *what happened?* It was S[eptember]-28. *What is it related to?* It is the international Deaf Day’.
‘Last week, it was S[eptember]-28: the international Deaf Day’.

The question-answer sequence has been described for ASL (Wilbur 1994, 1995; Wilbur and Patschle 1999; Rankin 2013, among others), AUSLAN (Johnston and Schembri 2007), LIBRAS (Quadros and Lillo-Martin 2008), Croatian SL (Milković, Bradarić-Jončić and Wilbur 2007), DGS (Waleschkowski 2009), ISL (Sandler 2010), NGT (Crasborn and van der Kooij 2013), LSE (Morales-López et al. 2012), etc. In short, signed languages use several resources to mark focus: (i) manual focus particles; (ii) stress and prosodic marking; (iii) body leans; and (iv) a question-answer sequence.

7. Connective function

In LSC a question-answer structure is produced to connect sentences with a logic relation, such as consecutives, finals, causals, and adversatives, as in (7).

(7) EEDU02:00- 02:19

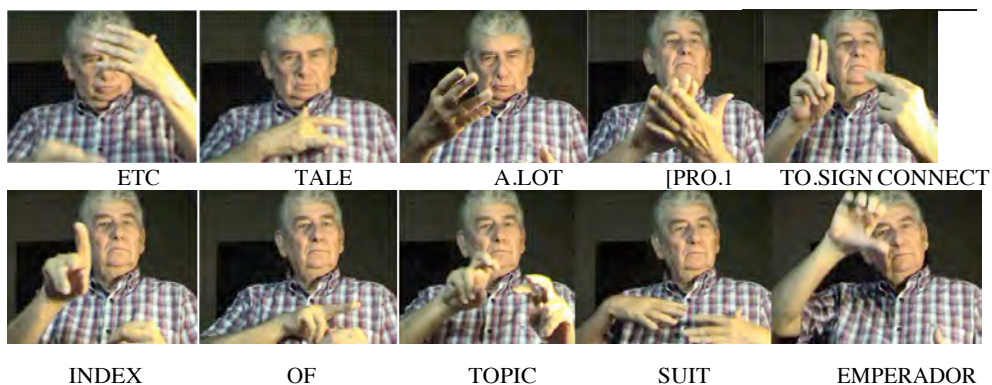
[BUT]_{raise brow} THERE.BE 1 SIDE FAILURE /[FAILURE] _{furrowed brow +head tilt backward}
OF ENVIROMENT COMMUNICATION IX BE

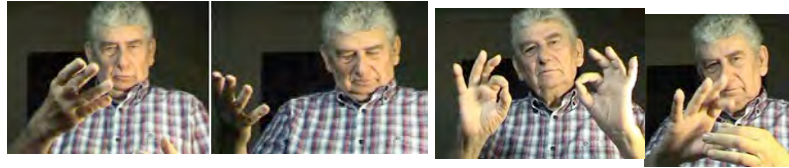
Lit. 'But?There is a negative side. *Which negative side?* The one concerning mass media'.

'But there is a negative side and that is the one concerning mass media'.

The question-answer sequence-marking focus not only takes place on the inter-sentential level, but also connects and focuses pieces of discourse. Consider (8) where the clause in the answer slot constitutes the semantic focus.

(8)





HOW-COME]_{br/hf}gesture/disc.marker:well TO.BE RELATE

Lit. [...]etc... a lot of stories. *How come I am signing relating this with the emperor's clothes?* Well...It is related with [...]

'[...]etc... a lot of stories. What's the connection between what I'm discussing and the emperor's clothes tale?' Well... It is related with [...]

The signer, thinking that the addressee's attention is focused on the *The New Emperor's Clothes*, wonders why he does not understand why the videoblogger, who normally deals with current issues, is explaining a fairytale. The signer is connecting the tale to the topic that he will introduce and expecting that it will be the focus of the video post, drawing a parallel between the attitude of the tale's characters and the attitude of Deaf people in meetings of their associations.

This function has been noted by Janzen (1998) for ASL and Morales-López et al. (2012) for LSE. As discussed previously, this question-answer structure may simultaneously accomplish a focus and a connective function, showing that such categories have no clear boundaries in signed languages.

8. Relativization

Relative clauses in LSC are marked prosodically with eyebrow raising and, syntactically, are located preferably in sentence-initial position followed by the main clause, as pointed out for other signed languages (Liddell 1978; Pfau and Steinbach 2005; Cecchetto et al. 2006; Branchini et al. 2007; Johnston and Schembri 2007; Tang et al. 2010; Kubus 2010; Bin et al. 2011). Consider (9).

(9)



a. [DEAF [OF LIVE IX-THERE)]_{head forward}]_{browraise}KNOW SEE-ASP.HAB
INDEX:_{neighborhood}



b. <CA:hosting deaf manPITY 2-TELL-1, MOTORBIKE SAVE WELL>



c. [DEAF]_{-topic}<CA:guest deaf INNOCENT >_{pause}[DEAF OF LIVE IX-THERE]_{-top}<CA:hosting deaf WAIT >

Lit. *'The deaf (man) who was living there? He knew the possibility of the motorcycle being stolen) (because) he knew the people around.*

“That’s a pity. You (should) have told me and (I would) have kept the motorbike in a safe place”. *The (other) deaf (man)?* “I didn’t know that!” *The deaf who was living there?* “Wait”...’

‘The deaf man who was living there was aware (about the possibility of the motorcycle being stolen) (because) he knew the people around’. [The hosting deaf man] said: “That’s a pity. You (should) have told me and (I would) have kept the motorbike in a safe place”. The (other) deaf (man) answered “I didn’t know that!”. (Then) the deaf who was living there said: “Wait”...’

The signer produces two restrictive relative clauses to distinguish between the two deaf men in the narrative. The sentence in (12a) has a structure topic-comment and the topic, marked with eyebrow raising, has in its scope the first relative clause, framed with the conjunctive marker OF. This relative marker is not mandatory, whereas some signed languages make use of a relative pronoun obligatorily, such as DGS (Pfau and Steinbach 2005) and LIS (Branchini et al. 2007). In LSC, there is a second marker signaling relatives clauses, glossed SAME (Mosella 2012).

The few available studies on relativization in signed languages show that: (i) relativization makes use of a bi-clausal structure with the relative clause preferably in sentence-initial position followed by the main clause; (ii) the relative clause is signaled suprasegmentally similar to question or topic marking (McIntire 1982); (iii) whereas nonmanual marking seems

frequent and obligatory, especially over the relative manual marker or pronoun, the latter may be optional.

9. Discussion

9.1. Question-answer sequence for non-information-seeking functions

One of the initial questions was whether signed languages exhibit prototypical conversational structures for the encoding of grammatical and discourse functions. This chapter has demonstrated that constructions similar to the genuine question-answer sequence can constitute the linguistic encoding for topicality, conditionality, focus, connectives, and relativization (Table 1).

Table 1. Question marking for non-seeking information functions across signed languages

Cluster	Signed language		Linguistic construction					
	Full name	Acronym	Polar Question	Topic	Conditional	Focus	Connective	Relative
isolated	Al-SayyidBedouin SL	ABSL	√	emerging	emerging	emerging	?	?
	Nicaraguan SL	ISN	√	emerging	emerging	?	?	?
	Turkish SL	TID	√	√	√	?	?	√
Arabic SL	Jordanian SL	LIU	√	√	√	?	?	?
BANZ & Swedish-based	Australian SL	AUSLAN	√	√	√	√	√	√
	British SL	BSL	√	√	√	√	?	?

	Swedish SL	SSL	√	√	√	?	√	√
	Finnish SL	FinSL	√	√	√	√	?	?
French SL- based	American SL	ASL	√	√	√	√	√	√
	Argentine SL	LSA	√	√	√	√	?	√
	Brasilian SL	LIBRA	√	√	√	√	?	?
	Catalan SL	LSC	√	√	√	√	√	√
	Colombian SL	LSC	√	√	√	?	?	?
	Croatian SL	HZJ	√	?	?	√	?	?
	Flemish SL	VGT	√	√	√	?	√	?
	French SL	LSF	√	√	√	?	?	?
	Italian SL	LIS	√	√	√	?	√	√
	SL of The Netherlands	NGT	√	√	√	√	√	?
	Norwegian SL	NSL	√	√	√	?	√	?
	Quebec SL	LSQ	√	√	√	√	√	?
	Russian SL	RSL	√	?	?	√	?	?
	Spanish SL	LSE	√	√	√	√	√	√
DGS- based family	GermanSL	DGS	√	√	√	√	?	√
	Israeli SL	ISL	√	√	√	√	√	√
	Polish SL	PSL	√	?	√	?	√	?
Japanese based	Japanese SL	NS	√	√	√	?	√	?
	Taiwan SL	TSL	√	√	√	?	?	?
Chinese based	Chinese SL	CSL	√	√	√	?	?	?
	Hong Kong SL	HKSL	√	√	√	√	√	√
	Indo-pakistani SL	IPSL	√	?	√	?	?	?
TOTAL		occurrence	30	24	26	15	14	11

Overall, the available studies indicate that: (i) the conversational question-answer sequence fulfills the linguistic functions addressed in most of the reported languages; (ii) these constructions are still undergoing a grammaticalization process, so that overtly nonmanual marking is not consistent for all the constructions within and between signed languages; (iii) the question-answer strategy constitutes the unmarked or the by-default linguistic resource to encode these functions; (iv) when there is a manual element, this is optional in most languages, and occurs in combination with a nonmanual marking, which is mandatory; and (v) generally there is a

prototypical – or most consistent – nonmanual marking (i.e. eyebrow raising), but also a constellation of certain potential nonmanual features that interact in the marking (forward/backward head nod, wide opened eyes, etc.).

9.2. *Multimodal communication and grammaticalization in signed languages*

The second question this chapter addressed is whether the grammatical structures dealt with have their source in multimodal face-to-face interaction elements, such as gestures. SL researchers on grammaticalization and pragmaticalization⁴ have claimed that gestural elements of the surrounding spoken community constitute the sources for grammatical markers (Wilcox et al. 2010 and references therein). They may be manual gestures – such as emblems – and facial or manner of movement gestures – such as eyebrow raising and tension of movement.

Clearly, signers take elements from multimodal conversation in face-to-face interaction and convert them into grammatical material. Eyebrow raising and head forward tilt are especially relevant and have been called *communicative questioning gesture* (Janzen 1998), or *gesture of anticipation*

⁴By *pragmaticalization* I refer to a type of diachronic language change whereby a lexical or grammatical item assumes a discourse-pragmatic function (See Norde 2009).

and encouragement of a response (MacFarlane 1998). They have developed into a grammatical marker for polar questions in the signed modality, and further grammaticalized into the non-information-seeking functions examined throughout the chapter through a ritualization process (Haiman 1994). For instance, Janzen (1999) has proposed a grammaticalization pathway for ASL, starting in the communicative questioning gesture:

(10) communicative questioning gesture > yes/no questions > topic constituents > connectives > conditionals > temporal reference shift

This path is based on the mechanism of change proposed by Traugott (1989), by which propositional meanings acquire a textual function, and later on an expressive function. More research is needed for establishing additional possible grammaticalization paths, and in other signed languages. In the absence of historical records for most of these languages, this research will have to be based on distributional criteria. These resources, because of their availability, frequency and transparency, are the suitable “raw material” to build a language with.

Studies of these signals in spoken face-to-face communication have described how body and facial movements relate to utterance function and discourse structure. Ekman (1997), Chovil (1991), Srinivasan and Massaro (2003), and Flecha-García (2006) argue for an association between eyebrow raising and questioning. Chovil (1991) describes how eyebrow raising in

English seems to mark the organizational structure of a dialogue, by marking the beginning, end, or continuation of a topic. Flecha-García (2006) reports that eyebrow raising in English selects and reinforces the content of these utterances. Also, for French, Cavé, Guaitella and Santi (2002) associated rapid eyebrow raising with the start of a new speaking turn.

Some studies deal with comprehension of this nonmanual marking in nonsigners. Grossman and Kegl (2006) tests ASL polar and content-questions marking directed to hearing nonsigners to check whether they can distinguish between both types based only on facial expression. Surprisingly, the hearing group showed a significantly higher level of accuracy than the deaf signer cohort for all stimulus types. The researchers conclude that facial expressions are used in English even if they are neither required, nor necessarily standardized.

Kocab et al. (2013) studied Nicaraguan SL (ISN) an emerging language that has adopted manual gestures of the hearing community to create lexical signs. Their results show: (i) all ISN signers use facial gestures of the surrounding hearing community; (ii) young signers use more facial marking: the brow furrow entered most recently, and now dominates as a nonmanual marker for content questions; and (iii), there is still significant intrasigners variability. They claim that the facial gestures are not yet fully grammaticalized.

It can be concluded that gestural elements from situated multimodal talk-in-interaction enter in the grammars of signed languages and later on

develop more grammaticalized functions or even pragmaticalized ones, giving shape to discourse structure. These question-answer sequences constitute fictive constructions and emerge from the conversational mind in the vein described by Pascual (2014).

9.3. Question-answer sequence as a complex category

Assuming a constructional perspective on language (Langacker 1987,1991), I argue that fictive question-answer structures constitute a symbolic complex category, involving a phonological and a semantic network, with multiple correspondences (Figure 1).⁶

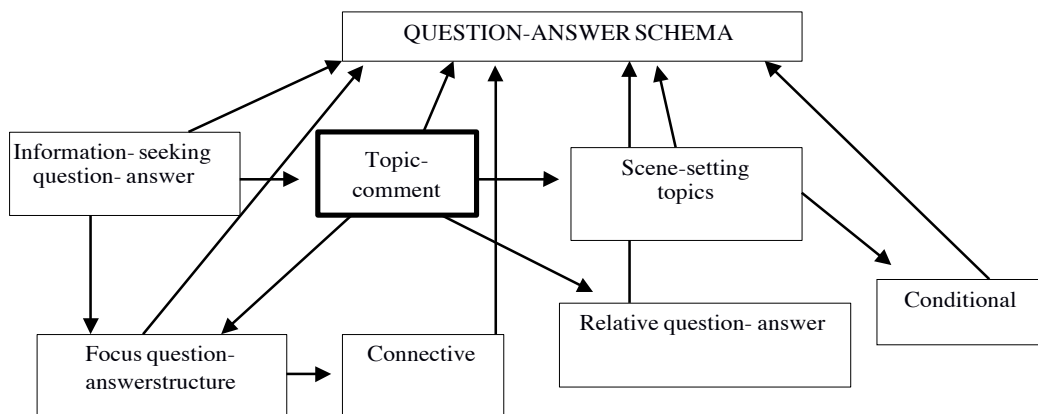


Figure 1. Network for the question-answer structure

⁶ My claim could be extended to other signed languages other than LSC, even with finer distinctions in the phonological pole of the particular constructions.

The network in Figure 1 includes schematic assemblies of different degree of specification where both the genuine and the topic-question answer sequence are salient. The categorizing relationships include both elaboration (solid arrow) and extension (dotted line). It involves vertical and horizontal relations and includes the higher-level question-answer schema, that emerges from the particular sequences with grammatical and discursive functions.

Each node of the question-answer network in Figure 1 is complex, comprising an entire constructional schema or subschema. For instance the relative construction constitutes an extension of the topic-comment construction. This network is the product of an outward growth by extension from the initial genuine question-answer construction to the topic-comment construction. The process of extension from topic-comment gives rise to finer distinctions: conditionals, focus, connectives and relatives. The lower in the process (figuratively in the network), the more obligatory the formal marking is. This is the case for LSC, where genuine questions and topics are not always overtly marked, but nonmanual marking conditionals is obligatory.

Semantically, there is some sense of persistence from the original information-seeking question to the elaborated constructional schema. The process of extension from topic-comment to other specific constructions is accompanied by an upward growth through schematization. Even the most schematic question-answer sequence includes a phonological and a semantic

component. The question-answer schema's phonological component is specified regarding the temporal ordering of clauses and underspecified for the particular nonmanual features selected for the question clause and it includes the whole constellation (eyebrow raising, open wide eyes, pause, etc.).

The particular constructional schemas (topic-comment, focus, relatives, etc.), on the other hand, have in common, besides some aspects of the phonological form (the order and the prosody), their highly intersubjective schematic import. Semantically, these constructions function discursively, establishing a "window" of attention that directs the interlocutor to a particular facet of the usage event: (i) the topic construction foregrounds the entity against the background of shared knowledge; (ii) the focus construction stresses particular content and anticipates its relevance for the current discourse space; (iii) the conditional directs the attention to the specific circumstances and conditions for the realization of a usage event; (iv) the connective guides and establishes a specific reading between two discourse chunks; and (v) the relative singles out a particular entity present in the discourse.

I argue that the grammaticalization of the question-answer sequence, the topic-comment structure, constitutes a prototypical element in the individual SL grammars. One of the arguments for this claim comes from typology, and it refers to the centrality, prominence and frequency of the topic-comment structure in signed languages. The prominence of

information structure has led some researchers to claim that signed flow reflects an order based on pragmatic and semantic principles rather than on syntactic principles (Janzen 1998, 1999; McIntire 1982; Deuchar 1983; Rosenstein 2001, 2004; Volterra et al. 1984; Morales et al. 2012; Cuxac 2000; Bouchard and Dubuisson 1995; etc). Moreover, Slobin (2013) suggests that all signed languages are topic-prominent languages as opposed to subject-prominent, since topic, but not subject, is overtly marked (Li and Thompson 1976, p. 466).

The second argument is based on the data of recently emerged signed languages, such as Al-Sayyid Bedouin SL. This SL shows an emerging marking for polar/content questions, and topics, but not for the other constructions addressed in this chapter (Sandler et al. 2009; Sandler 2010). This is also the case in ISN, where topic marking has been, diachronically, one of the first prosodic constructions. As pointed out by Sandler et al. (2009, p. 2015), facial expression is “recruited to cue types of constituents and the relations between them in a way that becomes more systematic as the language matures”. In short, diachronically questions and topic-comment constructions are the first structures that emerge in the process of constructing a language.

The third argument lies in the intersubjective nature of the topic-comment structure. Whereas in a genuine question-answer sequence both elements have their source in the interacting interlocutors, in the topic-comment construction the issuer sets up a specific domain of knowledge

(i.e. the topic), establishes mental contact with the addressee, and makes a predication. I argue that this formally monological structure, is intersubjective in nature because of its grounding function (in Langacker's sense of mental contact) and it is the first step in the evolution from a genuine two-interlocutor-interaction to a fictive interaction construction. From a cognitive perspective, topics are reference point constructions based on an image-schematic ability (Langacker 1987, 1991).

10. Final remarks

In this paper I argued that the question-answer sequence constitutes the skeletal structure (a *higher constructional schema* in Langacker's terms) for several unmarked SL constructions that are undergoing grammaticalization or are grammaticalized, and encode topics, conditionals, focus, connectives, and relatives.

I have shown that nonmanual marking – which has its origin in multimodal and interactive communication in the surrounding spoken and cultural community – plays an important role in the syntactic and discursive constructions of signed languages, sometimes being the sole means by which different clause types are distinguished, and by which the status of the information in the flow of discourse is marked. In fact, if the SL in question has two mechanisms to mark the construction (manual and

nonmanual), the nonmanual is the preferred, the most common, or the obligatory option.

The grammaticalized/pragmaticalized question-answer sequence constitutes an interactional structure and it seems to be a universal phenomenon of thought and language, reflecting the universality and primacy of face-to-face conversation. Thus I suggest that language grammars and discourses are not just constrained by their modality (signed vs. spoken) – but also by their mode of communication (orality vs. literacy). From a typological perspective, this distinction is crucial and it has two important consequences: (1) signed languages are oral languages; this dimension, and not only the signed vs. spoken distinction, should be kept in mind when carrying out intermodal contrastive studies; (2) video recording of signed languages has some uses similar to writing; thus we can expect some impact in signed languages structures.

Overall, the chapter contributes to our understanding of language as a complex adaptive system whose structures emerge from interrelated patterns of experience, social interaction in conversation, and cognitive mechanisms (Beckner et al. 2009), fictive interaction being a fundamental cognitive frame for language construction (Pascual 2014).

References

- Báez, I., & Cabeza, C. (2002). Construcciones interrogativas en LSE. In M. Veyrat Rigat, & B. Gallardo Paúls (Eds.), *Estudios Lingüísticos sobre la lengua de signos española* (pp. 55–83). Valencia: Universidad de Valencia.
- Baker-Shenk, C. (1983). *A microanalysis of the non-manual components of questions in American Sign Language*. PhD dissertation, University of California, Berkeley.
- Bakhtin, M. [1975] (1981). *The dialogic imagination* (M. Holquist, ed., trans. C. Emerson, & M. Holquist). Austin: University of Texas Press.
- Beckner, C., Blyther, R., Bybee, J. Christiansen, MH., Croft, W., Ellism, N., Holland, J., Ke, J., Larsen-Freeman, D., & Schoenemann, T. (2009). Language Is a Complex Adaptive System: Position Paper. *Language Learning*, 59, Suppl. 1, 1–16.
- Bergman, B. (1984). Non-manual components of signed language: Some sentence types in Swedish Sign Language. In F. Loncke, P. Boyes-Braem, & Y. Lebrun (Eds.), *Recent research on European sign languages* (pp. 49–59). Lisse: Swets & Zeitlinger B.V.
- Bergman, B. (1994). The study of sign language in society: Part one. In C. Erting, R.C. Johnson, D. Smith, & B. Snider (Eds.) *The deaf way: Perspectives from the international conference on deaf culture* (pp. 309–317). Washington, DC: Gallaudet University Press.
- Bouchard, D., & Dubuisson, C. (1995). Grammar, order & position of wh-signs in Quebec Sign Language. *Sign Language Studies*, 87, 99–139.
- Branchini, C., & Donati, C. (2009). Relatively Different: Italian Sign Language relative clauses in a typological perspective. In A. Liptak (Ed.) *Correlatives: Crosslinguistically* (pp. 157–191). Amsterdam: John Benjamins.
- Cavé, C., Guaitella, I., & Santi, S. (2002). Eyebrow movements and voice variation in dialogue situations: an experimental investigation. *Proceedings of the 7th International Conference on Spoken Language Processing* (pp. 2353–2356). Denver.

- Cecchetto, C., Geraci, C., & Zucchi, S. (2006). Strategies of relativization in Italian Sign Language. *Natural Language and Linguistic Theory*, 24(4), 945–957.
- Chovil, N. (1991). Discourse-oriented facial displays in conversational signals. In M. von Cranach, K. Foppa, W. Lepenies, & D. Ploog (Eds.), *Human ethology: Claims and limits of a new discipline* (pp. 169–249). Cambridge: Cambridge University Press.
- Crasborn, O., & van der Kooij, E. (2013). The phonology of focus in Sign Language of the Netherlands. *Journal of Linguistics*, 49(3), 515–565.
- Cuxac, Ch. (2000). *La langue des signes française. Les voies de l'iconicité*. Paris: Gap, Ophrys.
- De Bin, E., Massone, M.I., & Druetta, J.C. (2011). Evidencias de subordinación en Lengua de Señas Argentina. *Lengua de Señas e Interpretación*, 2, 5–19.
- Dachkovsky, S., & Sandler, W. (2009). Visual intonation in the prosody of a sign language. *Language and Speech*, 52(2/3), 287–314.
- Ekman, P. (1979). About brows: Emotional and conversational signals. In M. von Cranach, K. Foppa, W. Lepenies, & D. Ploog (Eds.), *Human ethology: Claims and limits of a new discipline* (pp. 169–202). Cambridge: Cambridge University Press.
- Enfield, N.J. (2008). Language as shaped by social interaction. *Behavioral and Brain Sciences*, 31(5), 519–520.
- Engberg-Pedersen, E. (2002). Grammatical relations in Danish Sign Language: Topic and subject. In A. Pajunen (Ed.), *Mimesis, sign, and the evolution of language* (pp. 5–40). Turku, Finland: University of Turku.
- Flecha-Garcia, M. (2006). Eyebrow raising, discourse structure, and utterance function in face-to-face dialogue. In *Proceedings of the 28th Annual Conference of the Cognitive Science Society* (pp. 1311–1316). Mahwah, NJ: Lawrence Erlbaum Associates.
- Geluykens, R. (1992). *From discourse process to grammatical construction: on left-dislocation in English*. Amsterdam: John Benjamins.
- Göksel, A., & Kelepir, M. (2013). The phonological and semantic bifurcation of the functions of an articulator HEAD in questions in Turkish Sign Language. *Sign Language & Linguistics*, 16(1), 1–30.

- Grossman, R.B., & Kegl, J. (2006). Moving faces: Categorization of dynamic facial expressions in American Sign Language by deaf and hearing participants. *Journal of Nonverbal Behaviour*, 31(1), 23–38.
- Haiman, J. (1978). Conditionals are topics. *Language*, 54, 564–589.
- Haiman, J. (1994). Ritualization and the development of language. In W. Pagliuca (Ed.), *Perspectives on grammaticalization* (pp. 3–28). Amsterdam: John Benjamins.
- Hendriks, H.B. (2008). *Jordanian Sign Language: Aspects of grammar from a cross-linguistic perspective*. Utrecht: LOT Press.
- Herrero, Á. (2010). *Gramática didáctica de la lengua de signos española (LSE)*. Madrid: Ediciones SM.
- Herring, S.C. (1991). The grammaticalization of rhetorical questions in Tamil. In E.C. Traugott, & B. Heine (eds). *Approaches to grammaticalization* (pp. 253–284). Amsterdam: John Benjamins. doi: 10.1075/tsl.19.1.12her
- Hopper, P.J., & Traugott, E.C. (1993). *Grammaticalization*. Cambridge: Cambridge University Press.
- Jantunen, T. (2007). On topic in Finnish Sign Language. Ms, June 2007. Online at: http://users.jyu.fi/~tojantun/articles/JAN_topic_ms.pdf
- Janzen, T. (1999). The grammaticization of topics in American Sign Language. *Studies in Language*, 23, 271–306.
- Jespersen, O. (1940). *A Modern English grammar on historical principles. Part V: Syntax*. Copenhagen: Ejnar Munksgaard.
- Johnston, T., & Schembri, A. (2007). *Australian Sign Language: An introduction to sign language linguistics*. Cambridge: Cambridge University Press.
- Keenan, E.L. (1985). Relative clauses. In T. Shopen (Ed.). *Language typology and syntactic description. Complex constructions* (vol. 2, pp. 141–170). Cambridge: Cambridge University Press.
- Kimmelman, V., & Pfau, R. (in press). Information structure in Sign Languages. In C. Fery, & S. Ishihara (Eds.), *The Oxford handbook on information structure*. Oxford: Oxford University Press.
- Kocab, A., Pyers, J.E., & Senghas, A. (2013, July). From gesture to language: The emergence of nonmanual markers in Nicaraguan Sign Language. Poster

- presented at *11th Theoretical Issues in Sign Language Research*, London, UK.
- Kooij, E. van der, Crasborn, O.A., & Emmerik, W. (2006). Explaining prosodic body leans in Sign Language of the Netherlands: pragmatics required. *Journal of Pragmatics*, 38, 1598–1614.
- Kubus, O. (2010). Relatives clauses constructions in Turkish Sign Language. Poster presentation. at *TISLR'10*, PurdueUniversity, West Lafayette (USA).
- Kuteva, T., & Comrie, B. (2005).The typology of relative clause formation in African languages. In F.K. Erhard Voeltz (Ed.), *Studies in African linguistic typology* (pp. 209–228). Amsterdam: John Benjamins.
- Langacker, R.W. (1987). *Foundations of cognitive grammar. Vol. 1 Theoretical prerequisites*. Stanford: Stanford University Press.
- Langacker, R.W. (1991). *Foundations of cognitive grammar. Vol. 2. Descriptive application*. Standford: Stanford University Press.
- Langacker, R.W. (2013). Interactive cognition: Toward a unified account of structure, processing, and discourse. *International Journal of Cognitive Linguistics*,3(2), 95–125.
- Li, C.N., & Thompson, S.A. (1976). Subject and topic: a new typology of language. In C.N. Li (Ed.), *Subject and topic* (pp. 457–490). New York: Academic Press.
- Liddell, S.K. (1978). Nonmanual signals and relative clauses in ASL. In P. Siple (Ed), *Understanding language through sign language research* (pp. 59–90). New York: Academic Press.
- Liddell, S.K. (1980). *American Sign Language syntax*. The Hague: Mouton.
- Liddell, S.K. (2003). *Grammar, gesture, and meaning in American Sign Language*. Cambridge: Cambridge University Press.
- Lillo-Martin, D., & de Quadros, R.M. (2008). Focus constructions in American Sign Language and Língua de Sinais Brasileira. In J. Quer (Ed.), *Signs of the time*. (pp. 161–176). Seedorf, Germany: Signum Verlag.
- Linell, P. (2009). *Rethinking language, mind and world dialogically: Interactional and contextual theories of human sense-making*. Charlotte, NC: Information Age Publishing.

- Linell, P. (2012). On the nature of language: Formal written-language-biased linguistics vs. dialogical language sciences. In A. Kravchenko (Ed.), *Cognitive dynamics in linguistic interactions* (pp. 107–124). Newcastle upon Tyne: Cambridge Scholars Publishing.
- MacFarlane, J. (1998). From affect to grammar: Ritualization of facial affect in signed languages. *Paper presented at the 6th International Conference on Theoretical Issues in Sign Language Research*, Washington, DC.
- McIntire, M. (1982). Constituent order and location in American Sign Language. *Sign Language Studies*, 37, 345–386.
- Milković, M. Bradarić-Jončić, S., & Wilbur, R.B. (2007). Information status and word order in Croatian Sign Language. *Clinical Phonetics and Linguistics*, 21, 1007–1017.
- Morales-López, E., Reigosa-Varela, C., & Bobillo-García, N. (2012). Word order and informative functions (topic and focus) in declarative utterances of Spanish Sign Language. *Journal of Pragmatics*, 44, 474–489.
- Mosella, M. (2012). *Les construccions relatives en LSC*. Ph Dissertation. University of Barcelona, Barcelona, Spain.
- Norde, M. (2009). *Degrammaticalization*. Oxford: Oxford University Press.
- Ormel, E., & Carsborn, O. (2012). Prosodic correlates of sentences in signed languages: A literature review and suggestions for new types of studies. *Sign Language Studies*, 12(2), 279–315.
- Oviedo, A. (2011). *Apuntes para una gramática de la lengua de señas colombiana*. Cali: Universidad del Valle, Instituto Nacional para Sordos
- Pascual, E. (2014). *Fictive interaction: The conversation frame in thought, language, and discourse*. Amsterdam: John Benjamins.
- Pfau, R., & Steinbach, M. (2005). Relative clauses in German Sign Language: extraposition and reconstruction. In L. Bateman, & Ch. Ussery (Eds), *Proceeding of the North East Linguistic Society (NELS 35)* (507–521.). Vol 2. Amherst, MA: GLSA.
- Rankin, M.N.P. (2013). *Form, meaning, and focus in American Sign Language*. Washington, D.C.: Gallaudet University Press.
- Sandler, W. (2010). Prosody and syntax in sign languages. *Transactions of the Philological Society*, 108(3), 298–328.

- Sandler, W., Meir, I., Dachkovsky, S., Padden, C., & Aronoff, M. (2011). The emergence of complexity in prosody and syntax. *Lingua*, 121(13), 2014–2033.
- Srinivasan, R.J.; & Massaro, D.W. (2003). Perceiving from the face and voice: distinguishing statements from echoic questions in English. *Language and Speech*, 46(1), 1–22.
- Slobin, D.I. (2013). Typology and channel of communication: Where do signed languages fit in? In B. Bickel, L. Grenoble, D.A. Peterson, & A. Timberlake (Eds.), *Language typology and historical contingency: In honor of Johanna Nichols* (pp. 47–68). Amsterdam: John Benjamins.
- Smith, W.H. (2005). Taiwan Sign Language research: An historical overview. *Language and Linguistics*, 6(2), 187–215.
- Steffensen, S. V. (2009). Language, languaging, and the extended mind. *Pragmatics and cognition* 17(3), 677–698.
- Sutton-Spence, R., & Woll, B. (1999). *The linguistics of British Sign Language*. Cambridge: Cambridge University Press.
- Sze, F. (2011). Nonmanual markings for topic constructions in Hong Kong Sign Language. *Sign Language & Linguistics*, 14(1), 115–147.
- Talmy, L. [1996] (2000). Fictive motion in language and ‘ception’. In *Toward a Cognitive Semantics: Concept Structuring Systems* (vol. 1, pp. 99–175). Cambridge: MIT Press.
- Tang, G., Lau, P., & Lee, J. (2010). Strategies for relativization in Hong Kong Sign Language. Paper presented at the *Theoretical Issues in Sign Language Research 10*, Purdue University, West Lafayette, Indiana.
- Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition*. Cambridge, MA: Harvard University Press
- Traugott, E.C. (1989). On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language*, 57, 31–55.
- Veinberg, S., & Massone, M.I.. (1992). Lengua de Señas Argentina: los rasgos nomanuales. *Fonoaudiológica*, 38(1), 74–93.
- Verhagen, A. (2005). *Constructions of intersubjectivity: Discourse, syntax, and cognition*. Oxford: Oxford University Press.

- Vermeerbergen, M., Van Herreweghe, M., Akach, P., & Matabane, E. (2007). Constituent order in Flemish Sign Language (VGT) and South African Sign Language (SASL). A cross-linguistic study. *Sign Language & Linguistics*, 10(1), 23–54.
- Vygotsky, L.S. [1934] (1962). *Thought and language*. MIT Press.
- Waleschkowski, E. (2009). Focus in German Sign Language. Poster presented at the *Workshop on Non-manuals in Sign Languages (NISL)*, Goethe-University Frankfurt, April the 5th, 2009.
- Wilbur, R. (2012). Information structure. In R. Pfau, M. Steinbach, & B. Woll (Eds.), *Sign Languages* (pp. 462–489). Berlin: Mouton de Gruyter.
- Wilbur, R.B., & Patschke, C.G. (1998). Body leans and marking contrast in ASL. *Journal of Pragmatics*, 30, 275–303.
- Wilbur, R.B., & Patschke, C.G. (1999). Syntactic correlates of brow raise in ASL. *Sign Language & Linguistics*, 2, 3–30.
- Wilcox, S., Rossini, P., & Pizzuto, E.A. (2010). Grammaticalization in sign languages. In D. Brentari (Ed.), *Sign languages* (pp. 332–354). Cambridge: Cambridge University Press.
- Zeshan, U. (2000). *Sign language in indo-pakistan: A description of a signed language*. Amsterdam: John Benjamins.
- Zeshan, U. (2004). Interrogative constructions in signed languages: Cross-linguistic perspectives. *Language*, 80, 7–39.
- Zlatev, J., Racine, T., Sinha, C., & Itkonen, E. (Eds.), (2008). *The shared mind: Perspectives on intersubjectivity*. Amsterdam: John Benjamins.

Appendix 1: Transcription conventions

Symbols	Function
DOG	glosses in uppercase
₁ EXPLAIN ₂	Subscripts indicate points in the signing space used in pronominalization
IX	IX stands for a pointing sign.

[]	The square brackets indicate the scope (i.e. onset and offset) of a particular nonmanual marker.
<CA: dog>	Constructed action is transcribed between angle brackets and it is indicated after the abbreviation CA: and, in subscript effect, the agent of the action.
CAR-MOVE	A hyphen signals a multi-morpheme or multi-componential sign.
[] _{br}	eyebrow raising
[] _{fr}	furrowed brows
[] _{hb}	head backward
[] _{hf}	head forward
[] _{neg}	negative headshake
nd	non-dominant hand
p	prosodic break
[] _{sq}	squinted eyes
[] _{top}	topic