Chapter 5
Some methodological issues

Introduction

Sign languages represent a challenge for linguistic research in that they constitute a peculiar kind of minority language. Many aspects contribute to their peculiarity. This chapter briefly addresses some of the most relevant factors influencing LIS linguistic research in particular, and sign language research as a whole. Such factors are roughly described as: a. sociolinguistic aspects strictly connected to the status of being a minority language and, moreover, to the lack of national linguistic recognition for LIS (discussed in § 5.1); b. linguistic variations due to the different levels of linguistic competence within the Deaf community and to the policies influencing its historical development (discussed in § 5.2); and c. the visual-spatial modality of LIS and all sign languages, which places specific demands on the methodologies employed to collect, analyze and report linguistic data (discussed in § 5.3). This section is dedicated to illustrating the methods used to collect the linguistic data presented in the next chapters. Some clarifications on the data used and the strategies and technical aids supporting their collection, as well as valuable information on the informants is provided. Finally, in § 5.4, I give some explanations of the manual and non-manual glosses utilised in this work to transcribe LIS data. Section § 5.5 sums up the relevant information.

5.1. Social influences on linguistic research

LIS is a minority language not yet officially recognized as such within its national borders. Its social status is further complicated by the negative connotation linked to the situation of ‘disability’ characterizing its community.

Some of the most relevant consequences of the social status of LIS affect the signer’s perception of his/her own language. The erroneous but widespread belief that the dominant spoken language, in this case Italian, displays a superior and more prestigious linguistic status may lead to cases of interference in the sign language of the syntactic properties characterizing the spoken language. This is a possibility any researcher should be aware of.
Equally relevant are the consequences affecting the social and educational spheres of the Deaf community. The use of LIS in schools or in social and public events like conferences and religious ceremonies is very rare, thus contributing to the creation of negative or dismissive attitudes towards its linguistic status. It is only recently that an interpreting service has been provided on public television, restricted to a few news programmes. One of the welcome results of such a policy is greater involvement of deaf people in national and international events as well as a stronger visible presence of the Deaf community and their sign language among the hearing population.

Like all users of a minority language, signers are often bilingual (with differing degrees of competence in both the signed and spoken language). A common phenomenon widely spread among bilinguals of two spoken languages, i.e. code-switching,\(^{144}\) assumes an unexpected form when the dominant and minority language are realized in different modalities. In this case, a form of *covert* code-switching may take place. The signer may, in fact, manually code the spoken language, reproducing its structure in alternation with the structure of the sign language.\(^{145}\) This could be a conscious or unconscious process, especially when engaging in conversation with a hearing or non-native interlocutor in the desire to facilitate his/her comprehension and integrate his/her own signing with the socially more accepted language. When conducting linguistic research on sign languages, such code-switching may turn out to be potentially misleading. It is particularly important to keep in mind that code-switching may profoundly affect a signer’s output and lead to an erroneous analysis of the linguistic data. Therefore, a fundamental caution consists in avoiding situations and linguistic environments that are particularly likely to give rise to cases of code-switching, as discussed further in § 5.3.2.

5.2. Linguistic variation within sign languages

As generally recognized for spoken languages, signed languages vary along many dimensions such as the diachronic dimension, referring to variations in the use of a language across different time periods; the geographic dimension, strictly bound to the region of a signer; and the sociolinguistic dimension, concerning the gender, age and education of a signer. All these aspects have an influence on the linguistic production of both spoken and signed languages but in the latter, the situation is complicated by factors internal to the visual-spatial modality and to the Deaf world. Such factors, requiring
careful consideration in light of linguistic research on sign languages, will be discussed in this section.

A false belief commonly held is that there is only one sign language shared by all deaf people. However, as for spoken languages, each Deaf community develops its own sign language giving rise not only to distinct national sign languages but also to dialectal variations within national boundaries. This also applies to LIS.

Within Deaf communities, geographical variation assumes a fragmentation traceable to the historical development of sign languages. As mentioned in the General Introduction to this work, after the 1880 resolution against the use of sign language in deaf education, the dormitories of residential schools played a fundamental role in the survival of sign languages in most countries. They often constituted small isolated linguistic communities developing a linguistic system characterized by considerable lexical variation. This gave rise to substantial linguistic differences between communities of signers, often even within the same city.

A further source of linguistic variation peculiar to Deaf communities involves the linguistic competence of signers. As opposed to any other linguistic community, native users of a sign language, i.e. deaf people who have been exposed to sign language from birth, represent only 5–10% of the entire deaf population. This means that 90–95% of deaf people are born to hearing parents that do not use sign language. This striking fact has a number of relevant consequences. First of all, many deaf people have little opportunity of acquiring any natural language during the first years of their life. In the majority of cases, hearing parents do not provide any linguistic input in the visual-spatial modality and the only spoken linguistic input they provide does not reach the deaf child. In this situation, only an educational and social signing environment can rescue the child from the absence of any linguistic input. On the other hand, the situation of the minority of deaf children born to deaf parents is similar to that of hearing children exposed to a spoken language from birth with respect to competence and language acquisition.

If we consider that linguistic competence is strictly bound to early exposure to a natural language, the situation of deaf children gives rise to wide diversity in language competence depending on the age at which an individual deaf child is exposed to an accessible language. Only a small percentage of users of a sign language can, therefore, be safely referred to as ‘native users’ that have acquired the sign language in the same way and following the same timetable as hearing children learning spoken language. The consequences for a linguistic study on a sign language are easily surmised. The restriction posed by any linguistic research prescribing the informants to be competent
speakers of a language does not simply imply that they should have a good knowledge of the language but that they should also possess those intuitions and grammatical judgments that only native speakers possess. A native speaker’s competence enables them to provide valuable intuitions and grammatical judgments regarding the acceptability or non-acceptability of sentences even if they are unable to provide theoretical justifications or general rules. For linguistic research on sign languages, only native signers, who are very few in number, qualify as equivalent informants.

To complicate the situation, a factor that might influence the linguistic production of deaf signers is the kind of education they received. In Italy, and in most countries, there is no uniform educational system for deaf children. Although recent theories encourage bilingual education (involving distinct linguistic environments for the spoken and signed languages), the more traditional oral education prescribing the exclusive use of spoken language is still widely used in many educational contexts. Moreover, within the oral education, linguistic interference between the two modalities has arisen in the desire to teach deaf students the spoken language. Hearing educators have thus conceived some sort of pidgin in the attempt to employ the sign language as a tool to acquire the spoken language. Within this method, deaf students are exposed to unnatural linguistic input that manually codes the spoken language using the sign language lexicon while reproducing the syntactic structure of the spoken language. This mixed linguistic form, called Signed Italian, has been used together with a codified system called ISE (‘Exact Signed Italian’), manually reproducing all elements of the spoken language, including Italian functional words (such as articles and prepositions) that are not present in LIS. Thus the educational context greatly influences both the signer’s attitude towards the sign language (whether it is conceived as an autonomous language on a par with the spoken language, or just as an aid to learn the spoken language) and the influence of the spoken language on his/her signing behaviour.

Finally, as is the case with any language, a sign language user is particularly sensible of the diversified linguistic environment around him/her. He/she (consciously or unconsciously) modifies his/her signing to match the competence of his/her interlocutor. In the presence of a hearing interlocutor, the signer may attune his/her production to the structures of the spoken language. For this reason, data from a linguistic exchange between two native signers represent an especially valuable resource.

From the discussion carried out in this section, it appears evident that the linguistic influence of the spoken language on the signed language derives from a variety of factors (sociolinguistic, educational, family-based, etc.).
Any linguistic research on sign language should evaluate all these factors and attempt to isolate them in order to minimize their impact.

5.3. Collection of linguistic data and research technology

An obligatory stage of linguistic research is the gathering of linguistic data on which to base the analysis. Such data can take the shape of either a corpus of spontaneous production, or of data elicited in a more or less natural setting. The data used in this work come mainly from elicitation data, although, as will be explained in § 5.3.1, some naturalistic corpus data have been used to double-check the actual presence and use of the targeted structures in spontaneous conversations. While the naturalistic data have been offered by the CNR (National Research Council) of Rome, the elicited data are from previous research on the strategies of relativization in LIS carried out by researchers at the University of Milano-Bicocca and consists, for the most part, of first-hand elicited material collected from native deaf signers belonging to the Italian Deaf communities of Rome, Ancona, Pesaro and Venice.

5.3.1. Naturalistic data

Naturalistic data refers to the spontaneous production of (native) users of a given language. In this situation, the researcher and technical equipment (e.g. audio-recorder, microphone or video camera) should occupy as marginal and discreet a position as possible. This research setting has many advantages: it gives a relatively faithful picture of the actual use of the language with minimal influence from the researcher’s expectations; it presents the contexts in which some linguistic constructions are produced; it shows constructions which might not be realized in constrained settings; it avoids the risk of incongruence between the researcher’s questions and the interviewee’s responses; and it reduces unwanted influences from any other possible language. However, the freedom characterizing this setting, and facilitating some of its advantages, may also represent its main disadvantage for the researcher. When the object of linguistic research is, as in this study, the production of a highly specific syntactic structure not commonly produced in everyday conversation, naturalistic data will rarely provide it, and even if they do, its limited frequency would not allow the researcher to make any relevant generalizations or carry out an in-depth analysis.
Furthermore, within sign language research, the necessary employment of one or more video cameras placed in front of the signer(s) to adequately capture linguistic production, inevitably undermines the spontaneity of the linguistic exchange.

In this work, naturalistic data provided by the CNR of Rome have constituted an important part of the research mainly during its first and last phases.

As already mentioned, a large section of this work is devoted to the investigation of a specific LIS structure translating the equivalent of relative constructions. As such, the study starts with the pioneering analysis carried out by Cecchetto, Geraci and Zucchi (2006) on the strategies of relativization in LIS. As will be discussed in chapter 6, Cecchetto et al. identify a specific sign characterizing LIS relative constructions that was never thoroughly investigated in the previous literature. The first phase of my research aimed, therefore, at isolating the presence of this sign and verifying its syntactic function and actual use in spontaneous productions. This was possible by consulting the naturalistic data representative of the LIS variety used by signers coming from different regions of Italy. Once the intermediate phase of collecting and analyzing the elicited data had been concluded, the naturalistic data were consulted and analyzed again. At this point, some structures employing the same sign present in relative structures but different in many respects, led me to investigate a different construction, namely, what I claim to be the LIS equivalent of cleft sentences (see chapter 8).

5.3.2. Elicited data: collection procedures

The elicitation of linguistic data requires a somewhat constrained setting where the researcher (and, if necessary, an interpreter) places specific demands on the informants. This strategy of data collection is very useful since it enables the researcher to elicit grammatical judgments, test linguistic hypotheses and verify predictions regarding the acceptability of linguistic structures. Within the elicitation context, the main caveat is the need to limit any undesirable influence on the linguistic production of the informants.

Within my research, the elicited data represent the main source on which I base my analysis. Given the high specificity of the structures investigated, i.e. relative constructions and cleft constructions, elicitation represents a helpful tool of investigation. One main concern during the elicitation of sign language data is to limit the influence of the spoken language on the production of the informants. A way to reduce this risk is to interview native signers belonging to a culturally active Deaf community and, if possible, displaying
good metalinguistic abilities. Another way to minimize influence of the spoken language is the exclusive use of LIS within elicitation contexts. This may be achieved either by the researcher’s fluency in the sign language or by the use of an interpreter. Even in the latter case, it is very important that the researcher is able to follow the conversation between the informant and the interpreter. During the elicitation of data, I benefited greatly from my knowledge of LIS both in contexts where the interpreter was present, by intervening with questions and clarifications, and in contexts where no interpreter was available. Particular attention was also paid to the preparation of situational contexts to present to the signer. These reproduced common everyday situations within the deaf community, thus providing a natural environment for both the signer and the syntactic structures under investigation. To clarify, I will explain with examples all the phases making up a common execution of elicitation within my research.

As an introductory phase of elicitation, all informants were encouraged to produce the variety of LIS they usually used when engaged in a conversation with other native signers of the Deaf community, trying to avoid any influence from the spoken language in which they all had good competence. They were then presented with a situational context in LIS of the kind in (348).

(348) *Yesterday there was a welcoming party at the National Deaf Institute of your city for an Italian deaf student returning from a period of study at Gallaudet University. The people who came to the party were almost all men. Only three women were present. One of them brought a very good pie that you liked a lot. You asked this woman for the recipe. Another woman had very high heels and chatted with your best friend all night. Finally, another one did not talk to anyone and left very early.*

The informants were then asked some questions (again, in LIS) regarding the situation described. A sample of these questions is given in (349).

(349) a. *Which woman did you ask for the recipe?*
   b. *Which woman did your best friend chat with?*
   c. *Which woman left early?*

The questions above constitute the stimuli given to the informants during the very first elicitation, the aim of which was to stimulate spontaneous utterances equivalent to relative constructions of the kind in (350).
(350) a. *I asked for the recipe from the woman who brought the pie.*

b. *My best friend danced with the woman who had high heels.*

c. *The woman who didn't talk to anyone left early.*

All informants reacted very naturally to the presentation of such stimuli, providing a uniform LIS structure that will be presented and analyzed in detail in chapter 6. During the elicitation context, the informants often engaged in conversation, asking me and the interpreter for further clarifications on the context. Discussion on the scenarios provided was always carried out in LIS. When, by controlling the context of elicitation, the informants’ linguistic production appeared to be the natural equivalent of the Italian structure I tried to elicit, each question was repeated and they were asked to sign the answer in front of the video camera. The final output was filmed and subsequently used as the input for the elicitation of more data with different informants. With this next group, the procedure followed was the opposite. From a LIS linguistic input, the informants were first asked for grammatical judgments on the sentence, and then they were asked to provide an adequate context for the sentence. This enabled a double-checking of the structures elicited, minimizing the risk of erroneous interpretations.

Another very useful practice of elicitation improving the signers’ spontaneous LIS production was the presence of another native signer to whom the informants signed the final output of the required sentences.

Overall, the syntactic distance between the elicited LIS structures and the equivalent Italian relative structures seems to confirm the lack of interference between the sign and the spoken language. To illustrate this point, the LIS equivalent of a relative construction is reported in (351).

(351) [DOCTOR VET DOG BRING PE] EAT A-LOT

‘The *dog* [that I took to the vet] eats a lot.’

As appears from the sentence in (351), the head of the relative clause, DOG, occupies a relative CP internal position in the LIS sentence where both Italian and English prescribe a relative CP external position. As further discussed in chapter 6, another difference between the two structures is the preference for a sentence-initial position of the relative CP in LIS but not in Italian or English.
5.3.3. Research technology

The digitalized technology used in this work greatly facilitated the collection and analysis of linguistic data. The informants were filmed with a digital video camera the size of which enabled me to carry it to the (distant) deaf communities the informants belonged to. This had the great advantage both of keeping the informants in a familiar environment, thus diminishing the unnatural influence of the research, and of facilitating the possibility of meeting deaf people who would willingly share their expertise. Among the advantages of the digital video camera, it is worth mentioning, the high resolution feature is fundamental in analyzing sign language data where non-manual behaviour is a crucial part of the linguistic production.155 The data were then transferred into a MacBook Pro laptop and edited first with the software iMovie where all material not relevant to the research was eliminated. The relevant linguistic production was converted into Quicktime format and glossed using ELAN. ELAN is a professional tool created at the Max-Planck Institute for Psycholinguistics in the Netherlands for the annotation of video and audio resources.156 It is particularly useful for the annotation of sign language data as it allows the creation of multiple layers, called tiers, hierarchically interconnected and representing, through the glosses, the simultaneous behaviour of the two hands and the different non-manual components. Annotations can be time-aligned to the video and a control panel allows the speed of playback to be set. Up to four different video clips can be associated with an annotation document, which enables them to be synchronized and simultaneously played.

The employment of digitalized technology also has the important advantage of archiving and diffusing linguistic data. Digitalized sign language videos offer the possibility of storing sign language data with good video quality as well as sharing them through the internet, opening interesting possibilities for the creation of sign language databases that can be consulted for any linguistic purpose.

5.3.4. The informants

The data presented and discussed in this work come from eight informants belonging to the Deaf communities of Rome, Ancona, Pesaro and Venice. They are therefore representative of the variety of LIS spoken in the central and northern regions of Italy. Although the Deaf community of Rome has historically a far longer Deaf educational and cultural tradition playing a
fundamental role in the diffusion of the Deaf culture and language, the Deaf communities of Ancona, Pesaro and Venice are also culturally and socially very active. All informants are native signers born to deaf parents. The signer from Pesaro, although exposed to LIS from birth, received an oral education imposed on him by his deaf signing parents who tried to discourage the use of signs but had to capitulate in light of the child’s rapid sign language acquisition deriving from the input received at home and at the Deaf community gatherings he attended regularly. All informants have a strong linguistic competence and share a solid Deaf cultural identity, being active members of the Deaf community. More specifically, the two informants from Rome are also LIS teachers, and one of them has belonged to the Deaf theatre company ‘Laboratorio Zero’ and has been the president of the National Deaf Institute (ENS) of Rome. The informant from Venice is a LIS professor at the University of Venice and a LIS actor. The two pairs of siblings from Ancona and the signer from Pesaro are active members of the Deaf sport club and are also engaged in Deaf social and cultural happenings. All informants, whose ages range from 24 to 40, have a good knowledge of Italian as a second language and, following the educational methods used in Italy, received a traditional oral education. The older informants attended special institutions for the deaf, while the younger ones attended mainstream schools as a consequence of the fact that the special institutes for the deaf have been closed (as prescribed by the law n. 517 of 1977) and the placement of students with disabilities in ordinary schools has been encouraged (see law n. 104 of 1992).

Notwithstanding the geographical and age variations, the informants produced a homogeneous set of data, agreeing in their grammatical judgments of the LIS structures elicited.

5.4. Some clarifications on the glosses

Due to the visual modality employed by sign languages, linguistic research has always to deal with the problem of adopting a faithful and clear representation for glossing sign language data. In this work, I adopt the notational convention of representing LIS signs with capitalized English words. As illustrated in chapter 2, an essential syntactic role is carried out by facial expressions and body movements, the activation of which is governed by the linguistic system. It is, therefore, necessary to adopt an adequate written representation for non-manual markers. Following standard practice, non-manual marking is glossed with a line extending over the signs they co-occur
with. Syntactic structures are marked by specific non-manual markings, so for the sake of simplicity and in order to give a syntactic organization to the different non-manual markings, each set is glossed with an abbreviation clarifying the syntactic structure they mark (e.g. ‘wh’ for wh-questions), as illustrated in (352).

(352) wh
SARA EAT WHAT
‘What did Sara eat?’

A description of the non-manual markings and their behaviour will always follow the glosses.

The use of citation forms for the glosses translating signs for verbs does not mean that LIS verbs lack agreement (see chapter 2).

Finally, indexes are used only when relevant to the discussion and specifically in two cases: (a) to mark subject and object verb agreement; and (b) to signal co-referentiality.

5.5. Summary

The aim of this chapter has been to present some methodological considerations specifically connected to sign language research. I have discussed how considerable impacts on the production of deaf signers arise from the social status of sign languages as disadvantaged minority languages and from linguistic variations connected mainly to signers’ diverse language competence and educational backgrounds. Linguistic researchers must, therefore, be aware of such potential interferences and minimize their effects when gathering data. By introducing the empirical research on LIS presented in the following chapters, I have given an explanation of the different methodologies and technologies employed in the collection of linguistic data together with a discussion on the informants. I finally briefly illustrated the glosses used to transcribe the LIS data.