



Università  
Ca' Foscari  
Venezia

Corso di Laurea Magistrale (*ordinamento  
ex D.M. 270/2004*)  
in Scienze del Linguaggio

Tesi di Laurea

**Slang terms in Italian Sign  
Language (LIS):  
a sociolinguistic perspective**

—

Ca' Foscari  
Dorsoduro 3246  
30123 Venezia

**Relatore**

Prof.ssa Chiara Branchini

**Correlatore**

Dott.ssa Alessandra Checchetto

**Laureanda**

Laura Fedeli

Matricola 826609

**Anno accademico**

**2014/2015**



*“Da Venezia ho ricevuto gli  
insegnamenti più preziosi della vita:  
da Venezia sembra di uscirmene come  
accresciuto dopo un lavoro.”  
A. Modigliani*

## INDEX

General Introduction .....	7
<b>CHAPTER 1. SIGN LANGUAGES: THEORETICAL FOUNDATIONS FOR THEIR LINGUISTIC STATUS .....</b>	<b>9</b>
1. Introduction .....	9
2. False misconceptions .....	10
2.1 Myth 1: sign languages are universal .....	10
2.2 Myth 2: sign languages are iconic and not arbitrary .....	13
3. Neurological studies about sign languages .....	17
4. The phonological level .....	19
4.1 Nonmanual markers (NMMs) .....	26
4.1.1 Lexical NMMs .....	27
5. The morphological level .....	29
5.1 Nouns and verbs .....	30
5.1.1 Inflectional and invariable morphology of LIS nouns and the role of the space .....	32
5.1.2 Verbal morphology in LIS .....	33
5.2 Classifiers .....	36
5.3 Morphological processes involving NMMs .....	40
6. The syntactic level .....	42
6.1 Word order in LIS .....	43
6.1.1 Laudanna's study (1987) .....	45
6.1.2 Geraci's study (2002) .....	49
6.1.3 Branchini and Geraci's study (2001) .....	49
6.2 Simple sentences and NMMs .....	50
6.2.1 Negative sentences in LIS .....	50
6.2.2 Interrogative sentences in LIS .....	52
6.3 Complex sentences and NMMs .....	54
6.3.1 Conditional clauses in LIS .....	54
6.3.2 Relative clauses in LIS .....	55
7. Summary .....	57

<b>CHAPTER 2. SOCIOLINGUISTIC VARIATION IN SPOKEN AND SIGN LANGUAGE</b> .....	58
1. Introduction .....	58
2. Sociolinguistics: a general overview .....	59
2.1 Sociolinguistic variables .....	60
2.2 Sociolinguistic variation in sign languages .....	63
2.2.1 Diachronic phonological variation in LIS .....	68
2.2.2 LIS Corpus: lexical and phonological variation in LIS .....	72
3. Summary .....	75
<b>CHAPTER 3. A LINGUISTIC CHALLENGE: AN ANALYSIS OF SLANG IN LIS</b> .....	77
1. Introduction .....	77
2. Defining slang: a challenging task .....	77
2.1 Word formation in slang .....	79
2.2 Italian young people: internationalisms and dialects .....	81
3. Slang terms in Sign Languages .....	82
3.1 My research on slang in LIS .....	84
3.1.1 Gathering the data and research technology .....	85
3.1.2 The informants .....	85
3.2 Introducing the data .....	85
3.2.1 Results and discussion .....	86
3.2.1.1 Metaphors .....	86
3.2.1.2 Metonymies .....	91
3.2.1.3 Synecdoches .....	93
3.2.1.4 Hyperboles .....	93
3.2.1.5 Neologisms .....	95
3.2.1.6 Sign play/sign modifications .....	98
3.2.1.7 Iconicity and classifiers .....	103
3.2.1.8 Special Oral Components .....	105
3.2.2 Results from adult signers .....	106
4. Summary .....	108

Conclusions .....	110
References .....	114

## GENERAL INTRODUCTION

Italian Sign Language (LIS) is the language used by Italian Deaf people exhibiting all of the fundamental linguistic properties of natural languages.

LIS, as other sign languages, is often object of prejudices: sign languages are thought to be gestural communications systems lacking the linguistic properties exhibited by oral languages. Nevertheless, linguistic research dating back to 1960 by the American linguist William Stokoe demonstrated the presence of a phonological structure in the signs of ASL (American Sign Language), giving dignity to what was considered only a gestural system without a grammar.

Subsequent research in many sign languages has demonstrated that oral and signed languages share an equal linguistic status, despite their modality-specific characteristics, thanks also to the contribution of psychological and neurological studies.

Linguistic research on LIS (Volterra et al. 1984; Pizzuto et al., 1986, 1987; Volterra, 1987; see also: Boyes Braem et al., 1990; Corazza, 1990; Pizzuto et al. 1990, 1995; Laudanna and Volterra, 1991; Cameracanna et al. 1994, Geraci, 2002, 2004; Brunelli, 2006; Geraci, 2006a;b; Cecchetto et al., 2006; Cecchetto, Zucchi, 2006; Bertone, 2007; Branchini, 2007; Branchini, 2007; Geraci, 2007, 2008; Bertone, 2008; Geraci et al., 2008; Lerosé, 2008; Mazzoni, 2008; Bertone, 2009ab; Branchini, 2009; Branchini, Donati, 2009; Brunelli, 2009; Cecchetto et al., 2009; Geraci, 2009; Lerosé, 2009; Zucchi, 2009; Zucchi et al., 2010; Bertone, Cardinaletti, 2011; Bertone, 2011; Brunelli, 2011; Branchini, Geraci, 2011; Mantovan, 2011) has proved that it exhibits the linguistic properties common to natural languages: it has a phonology, a morphology and a syntax comparable to that of any other spoken language.

Still, LIS lacks an official recognition as a minority language by the Italian government and for this reason it is mainly used in private and informal contexts.

From an historical point of view, a symbolic date has marked the fate of sign languages, including LIS: in 1880, the International Congress of Milan banned the use of sign languages from any educational context, as they were considered an obstacle in learning the oral language, imposed as only way to communicate and to educate deaf pupils. As a consequence, also in Italy, Deaf people were discouraged to use their natural language, that was confined only to the Deaf community and, in the scholastic context, to the dormitories of the schools. This is one of the many reasons

why LIS reflects a high degree of variation all over Italy, which has been being object of sociolinguistic investigation recently (Radutzky, 2000; 2009; Battaglia, 2009; Geraci et al. 2010; Branchini e Geraci, 2011; Geraci et al., 2011; Geraci e Bayley, 2011; Cecchetto, Giudice & Mereghetto, 2011).

This study aims at investigating more deeply the sociolinguistic variation in LIS, focusing on the Deaf young population and its way to communicate. It is well known that young people use slang to create and develop their own language in order to reinforce their identity and cohesion inside their peer group. In every language, slang has specific characteristics, it is often associated to bad language and for its fresh and ephemeral nature, it is very susceptible to changes. It is interesting to investigate the strategies employed by Deaf young signers to develop their own slang terms and to compare them to those of the hearing population. In fact, no study has been conducted yet on this topic in LIS. The analysis of slang in sign language is an important instrument to get closer to the Deaf culture and it can constitute a further object of study for those approaching the study of sign language and for those who work with it, like interpreters, educators, teachers, as slang can work as stimulus to enrich linguistic repertoires and to learn sign language in all its playful shades.

The thesis is divided into three chapters. The first chapter aims at supporting the equal status of signed and spoken languages. In particular, it provides the reader a theoretical background about sign languages, aiming at debunking some false misconceptions and supporting the idea that sign languages can fulfil the same functions as spoken languages do. In order to reach this goal, the chapter sums up the phonological, morphological and syntactic characteristics of LIS.

The second chapter approaches sociolinguistic issues of the Deaf community, analysing first the strict relation existing between language and society, then focusing on the sociolinguistic variation applied to sign languages: gender, ethnicity, age of the signers are important factors which can lead to variation.

Finally, in chapter 3, I examine in depth the heart of my research, an attempt to discover how slang develops among young Deaf signers and which characteristics it shows. The chapter tries to outline some general strategies adopted by some young students of the College of the Deaf 'Magarotto', in Padua, and to provide sociolinguistic explanations related to the Deaf community. Finally, I present the results of my research.

# CHAPTER 1

## SIGN LANGUAGES: THEORETICAL FOUNDATIONS FOR THEIR LINGUISTIC STATUS

### 1. Introduction

As long as we have deaf people on earth, we will have signs.[...]It is my hope that we will all love and guard our beautiful sign language as the noblest gift God has given to deaf people.

George Veditz, 1913

It is very common among people the belief that sign language is a universal language, namely, something connected to pantomime derived necessarily from oral languages, thus unable to express abstract concepts. These are some of the prejudices that are keeping LIS (Italian Sign Language) from being recognized as a natural language.

On December 13<sup>th</sup> 2006, ONU General Assembly approved the Convention on the Rights of Persons with disabilities, subscribed in Italy on March 30<sup>th</sup> 2007. This Convention clearly states that every country should recognize its own sign language and therefore the role of professional interpreters facilitating its transmission and promoting the cultural and linguistic identity of the national Deaf<sup>1</sup> community. All European countries but three of them have recognised the national sign language. Italy is not one of them and the Italian Deaf community and those who use LIS are still struggling to reach this goal. In Italy, many bills have been proposed from different political parties, but LIS has still not received an official linguistic recognition. This is due to the fact that it is strongly linked to the situation of handicap by which its community is seen.

In this chapter we will see some of the most common misconceptions connected to sign languages and we will analyse the linguistic status of sign languages from a phonological, morphological, syntactical point of view, demonstrating that sign languages have an highly articulated grammar and all the fundamental properties linguists have assumed for all languages.

---

<sup>1</sup> The convention concerning the use of capitalised 'D' in the word 'Deaf' is respected: it refers to members of deaf communities using sign language and sharing the deaf culture. The employment of the lower case 'deaf' refers to an individual's audiological status.

## 2. False misconceptions

### 2.1 Myth 1: sign languages are universal

As we said, sign languages are often object of prejudices that do not help them to emerge as fully developed languages, autonomous with respect to other signed and spoken languages. One of the most common misconceptions concerns the supposed universal status of sign languages. People often wonder why all deaf people in the world do not employ a unique sign language. However, sign languages, like spoken languages, are different in every country for geographical, national, political and social reasons. This is so because sign languages share with natural languages the universal principle of arbitrariness. Sometimes dialectal variation within a sign language is attested and this also holds for Italian Sign Language, where we find a lot of lexical variations from one region to another, sometimes from a city to another. In most cases, this depends from the fact that new signs spread mainly inside the institutes for the deaf, where signers gave rise to great linguistic differences. This variation is due not only by a lack of a writing system, but also by an internal stratification among deaf communities: signers have very different linguistic competences. In fact deaf people who have been exposed to sign language from birth represent only 5-10% of the entire deaf population.<sup>2</sup> For this reason, only a small percentage of deaf children can be considered to acquire a sign language from his parents in the same way as a hearing child would do in the acquisition of a spoken language.

Another reason giving rise to variation must be attributed to the resolution of 1880 against the use of LIS in the education of deaf students: as we will see throughout this work, from that moment on residential schools for deaf represented a crucial role in the survival of sign language. Every boarding school helped deaf students to constitute small communities which gave rise to great linguistic variation. Furthermore, LIS lacks an official recognition as a minority language by the government and for this reason it is very uncommon to find it in official situations as it could be for example in public events or in the public television and the social media in general.

---

<sup>2</sup> The statistics is calculated on data coming from the United States, calculated on the percentage of deaf children born from deaf parents (Schein & Delk, 1974).

Let us see more evidence proving that sign languages are not universal: spoken and sign languages are usually very different and independent from a linguistic point of view although being used on the same national territory.

Different sign languages can also use an identical sign but with different meanings. This is the case for example for LIS and ASL: as we can see in the following picture (1), the realization of the sign is the same but in LIS it means ROME, whereas in ASL it means NAME.

(1)<sup>3</sup>



LIS Sign for 'Rome'



ASL sign for 'name'

At the same way, different sign languages have different signs to express the same meaning. The following examples give a clear idea of this: the meaning the signs refer to is TREE, but we see different realizations of it respectively in LIS, LSE (Spanish Sign Language), ASL, AUSLAN (Australian Sign Language) (2).

(2)



LIS sign for 'tree'



LSE sign for 'tree'

---

<sup>3</sup> The explanatory drawings (1) and (2) are taken from Caselli, Maragna, Volterra (2006)



ASL sign for 'tree'



AUSLAN sign for 'tree'

There are also sign languages that do have a lot of similar signs and characteristics, and this can depend from geographical proximities and historical influences. As Caselli, Maragna, Volterra (2006: 40) point out, ASL and LSF (French Sign Language), for instance, share a lot of similarities because of historical reasons: Laurent Clerc, the French deaf teacher from the school for the Deaf in Paris, followed the American Thomas Hopkins Gallaudet to North America, where they co-founded the first institution of the deaf. For this reason ASL has been very influenced by LFS. It is interesting to focus on ASL, as its influence is widespread throughout the Deaf world, since it is more and more used as lingua franca. As LeMaster and Monaghan (2004) claim, we could sum up the reasons into four points:

- 1- ASL is the language of the world's largest Deaf community. For this reason many Deaf people come to visit the United States.
- 2- Most of the research on sign languages linguistics and deaf culture has been conducted in America and in ASL, and afterwards it has become available in a widespread way.
- 3- ASL has been adopted by many Deaf people as second sign language as well as the American culture, that has become familiar to non-American Deaf people, and this can be ascribed to the already cited prolonged contact between American Deaf people and Deaf people from other nations.
- 4- ASL is the language used not only in the United States, but also in other educational contexts abroad, where ASL has been exported by missionaries or imported by local educators.

For example, ASL is used in some Nigerian deaf schools (Schmaling, 2003) or some deaf Thai school use a local sign language which is very much influenced by ASL (Woodward, 2003).

Anyway, as we have already explained, it is not possible to think of a universal sign language, just like it is very hard to think about a unique common spoken language: Esperanto has not been successful as well. It is true that there is an invented communication system intended for international use, which is called “Gestuno” or “International Sign Language”, which has been accepted by the World Federation of the Deaf’s Unification of Signs Commission. This communication system is used by interpreters and officials during international meetings and sport events.

## 2.2 Myth 2: sign languages are iconic and not arbitrary

Another myth, for most cases coming from hearing people, is to think that signs are some very expressive gestures which have an evident relation with the objects or actions they refer to.

Different studies about iconicity in sign have been conducted, in particular the first one comes from Klima and Bellugi (1979), who have pointed out that this impression is true only in the citation form of the signs, that is, when a sign is produced as isolated from the context. We cannot deny that, as sign languages are expressed in a visual-spatial modality, iconic and mimetic characteristics are very evident. Anyway, sign languages cannot be compared to pantomimes, where the actions and the characteristics of the objects are realized in very different ways from one person to another, so we can see “[...] how much freer the pantomime is [than the sign]” (Klima and Bellugi, 1979:19). On the contrary, signers from the same community produce signs in the exactly same way. This data come from the study previously mentioned, which shows also how pantomimes involves all parts of the body and large movement, whereas even the most iconic signs, produced always only by the signer’s hands, are produced in a very restricted, simplified way. Another important characteristic, which makes a difference between pantomimes and signs, is that in the first case the eyes move frequently during the action expressed, while a signer focuses his eye gaze directly on his interlocutor.

It is interesting to cite other experiments conducted by Klima and Bellugi (1979), who wanted to investigate how transparent signs could appear, that is how hearing people with no familiarity with ASL could understand the meaning of the signs from its form alone. In one of these experiments ten hearing people were exposed to ninety very common signs on videotape, abstract and concrete nouns, made by a native signer with neutral expression and in their citation form.

The result was that only the 10% of the meaning of the signs have been understood: this proved that most signs are not immediately transparent.

In another experiment, always conducted by Klima and Bellugi (1979), the same signs have been proposed to another group of hearing people, but in this case a multiple-choice test was constructed in which a list of the possible English translation were available. For example, to the sign glossed as HOME (picture 3) people could choose among the English verb *kiss*, *math home*, *comprehend*, *orange*. Only 18,2% of the responses was correct.



ASL sign for 'home'

A last investigation by Klima and Bellugi (1979) was carried out with another group of hearing non signer people, who were exposed to ninety signs, each one translated in its corresponding form in English. In this task, people had to express what was according to them the relation between the form of the signs presented and the their translation in English. The result was that for more than 90% of the signs, people noticed the connection between the shape of a sign and its meaning. As an example, when the sign glossed as WEEK in ASL was presented, people would respond like “*one line across the calendar*”.

The results of this experiment show that some signs do have some representational aspects, and those signs are called “translucent” (Klima and Bellugi, 1979). The

---

<sup>4</sup> The explanatory drawings (3) and (4) are taken from Klima and Bellugi (1979)

difference between a transparent and a translucent sign, according to Bellugi (1979), is therefore very important because it proves that when a sign appears to be apparently easy to understand, its comprehension is actually only partial. In fact, if you don't know a sign, you won't understand its meaning; only by knowing its meaning it is possible to make a connection between the sign and the referent with no difficulties. For this reason, it is not completely wrong to assume that a high level of iconicity is a strong characteristic of signed languages and that signs clearly have some traces of mimetic properties.

Boyes-Braem (1981) first tried to give an explanation of the reason why iconicity is so strong in sign languages: hands are generally used to carry out daily tasks, to manipulate objects, to count, to point. For this reason, the hypothesis is that signers use iconicity as linguistic economy by making an efficient use of the hands in the creation of the signs. At the same way, the signer's body, which is obviously always visible and present during a sign language speech, is used to refer to some body parts, always in an economic perspective.

"But unlike in spoken languages, where sound symbolism is an incidental part of the structure, in sign languages, the visual symbolism is an integral and productive part of the structure of the language, largely due to the 'pre-coding' of the hand functions from daily life." (Boyes- Braem 1981: 57)

Pietrandrea (2000; 2002) adds an interesting explanation about the reason why sign languages are more iconic than the spoken ones: the movements made by the hands are real objects, which use all the four dimensions of the extra-linguistic world and all of the visible actions to which we refer to when using language. Signs do not have to switch between the four dimensions of the concrete world to the mono-dimension of the acoustic channel, so it is obvious that a visual-gestural way of communicating shares more aspects with the physical reality it refers to.

As we have already seen, the fact that there is an iconic relation does not mean that the actual details of the form will be determined. The following pictures (4) show in a very explanatory way this concept: the sign for 'tree' is different from ASL to Danish Sign Language to Chinese Sign Language, as for all the other sign languages.

(4)



It is true that every sign is no doubt iconic, but it is even true that every language chooses an aspect of the characteristics of the tree to represent, that is in an arbitrary way.

As we will see in §4 about phonology, signs of ASL were first systematically described in terms of their formational parameters by Stokoe in 1960. According to him, every sign can be seen as a composition of a limited set of handshapes, locations and movements.

For this reason, every sign language can use only some of the parameters available for that language, and it does it by selecting only the elements considered salient at the linguistic level (Pietrandrea, 2002).

The drawings in (5)<sup>5</sup> show how the signs for WASHING ONE'S HAND and TABLE in LIS are produced with the same handshape, which select a different aspect as relevant. In fact, while in the first sign it is clear that the handshape refers to the act of one person washing his hand, in the second one the handshape is selected to express the flat characteristic of the surface.

(5)



LIS sign for 'washing one's hand'



LIS sign for 'table'

<sup>5</sup> The drawings (5) and (6) are taken from Pietrandrea (2002)

In (6) we can also see that the three signs have the same handshape, but for the first sign glossed as STONE, it refers to the round shape of the stone, while in CAR the handshape can be attributed to the grasping of the steering wheel. In PRISONER, the handshape refers to the hands of a person who has been incarcerated (Pietrandrea, 2002)

(6)



LIS sign for 'stone'



LIS sign for 'car'



LIS sign for 'prisoner'

The same can be claimed for the location parameter, for example. The same locations can be selected to express more than one meaning relating to it. Every sign language, as well as every spoken language, allows only some phonological patterns. So given a referent, the sign configuration employed to represent it is not predictable and at the same way, given a configuration, it is not possible to predict which aspect of that parameter will be employed for linguistic purposes (Klima and Bellugi, 1979).

We can conclude that phonemes, the aspects of referents and articulators, the associations between the meaning and form of formational parameters are arbitrary in sign languages.

Haiman (1998:151) provides a suggestive point of view on arbitrariness: according to him “denotation is emancipated connotation”, meaning that thanks to arbitrariness language can be emancipated from the concrete reality, phonemes are available for a potentially infinite number of signs, which can evolve and change, and their meaning can be created in a social context.

### 3. Neurological studies about sign languages

Sign languages have the possibility to fulfil all the functions that spoken languages normally absolve. The fact that the faculty of language can be expressed also in a

visuo-spatial modality has important consequences also for the neuropsychological research. In fact it is very fundamental to focus on which areas of the brain are involved during sign language elaboration and to make a comparison with the spoken languages. The first studies have been conducted by Neville and Bellugi, 1978; Neville, Schmidt and Kutas, 1983. First of all, they have focused on the effects on the brain organization of an early exposition to a sign language (Neville and Bellugi, 1978; Neville, Schmidt and Kutas, 1983). Other experiments carried out with deaf people in comprehension and identification tasks show the brain areas involved are the same, that is, there is a high activity of the left frontal lobe both in the deaf and in the hearing group. These results prove that the brain systems involved in the spoken and in the sign language are alike.

Neville *et al.* (1981) has also monitored the brain activity involved during the elaboration of the acoustic information and she proposes that the temporal frontal lobes perform in the same way for the acoustic and visual elaboration of the information.

Connected to the studies just mentioned, Poizner, Klima and Bellugi's (1987) research (1987) is likewise interesting. Their study focuses on deaf signers who have suffered brain damage and who have shown a similarity between signed and spoken languages in the mapping of linguistic and spatial abilities within the brain. In particular, six deaf patients with brain damage have been tested: a strong difference between damages to the left and right brain hemisphere has emerged. In fact, deaf signers with left hemisphere brain damage can have forms of aphasia for sign language which can arise at different levels (phonological, morphological, syntactical), but their spatial cognitive abilities, like face recognition, localization of objects and drawing remains intact. A strong difference has been noticed with deaf signers with right hemisphere brain damage, who, on the contrary, had severe problems with spatial abilities, that were lost very rapidly, so that they could not draw nor show spatial abilities.

What is remarkable for the linguistic recognition of the sign language is that their signing was not impaired, but remained fluent and meaningful and they could even use grammatical devices connected to the signing space.

This important study proves that sign languages are controlled by the same left brain hemisphere to which language elaboration is assigned in a similar way with spoken languages.

For this reason, the fact that sign languages develop in a visuo-spatial channel does not prevent them to be identified as real natural language like spoken languages, since the neural specialization for language is determined more by the linguistic or spatial cognitive operation than by the physical channel in which it develops.

In the last decades several studies have been conducted with new neuroimaging techniques and the results have confirmed the previous studies, even if they have showed that also the right hemisphere has an important role during the comprehension tasks (Hickok, Bellugi and Klima 1998; Gordon 2004).

#### 4. The phonological level

As we mentioned in § 2.2, the American researcher William Stokoe had a very important role in the 1960's. His work "*Sign Language Structure*" (1960) introduces a very crucial consideration from a linguistic and semiotic point of view about sign languages. For the first time, William Stokoe has given dignity to what was considered only a mere communicative system without a proper grammar and lexicon. Stokoe's pioneering analysis of ASL has focused on a sub-lexical structure in signs, very similar to the phonological structure of words in oral languages. Thanks to this discovery it is not possible to claim that signs are simple iconic gestures with no substructure. It was the Swiss linguist Ferdinand De Saussure (1987) who first introduced the notion of "static system of interconnected units" for spoken languages, and by this term he meant that linguistic units are composed by a network of similarities and differences both on the form level and on the meaning level. Stokoe showed that also sign languages are characterized by a feature common to all languages: a duality of patterning between the meaningful level (morphemes, words, phrases, sentences) and a form/meaningless level, corresponding for spoken languages to sounds that create meaningful expressions. The elements belonging to the form are linguistically significant, that means that they can influence the meaning; their combination with other morphemes and words has to obey some constraints; they may be altered in different contexts. Stokoe's analysis showed that also the phonology of sign languages is characterized by a duality of patterning between a form (the shape of the hand, the body parts used as locations, the shape of the movements) and meaning, that is the meaning of a sign conveyed by a single parameter. In fact, signs can be partitioned in smaller units which combine

simultaneously according to some regular principles. In the first analysis carried out by Stokoe (1960), each sign can be analysed along three parameters: 1) location 2) handshape, 3) movement that can be combined in a potentially infinite number of ways yielding different signs, in the same way as phonemes do in spoken languages. To provide an example, in LIS 26 handshapes, 15 locations, 6 hand orientations and 32 movements have been identified (Volterra, 1987). For this reason formational parameters have been defined “cheremes” by Stokoe (1960) (from the Greek word ‘*cheros*’, meaning ‘hand’) as the minimal significative units of a sign, just like the phonemes of the spoken languages. Battison (1978) identified a fourth parameter, orientation, specifying the orientation of the hand palm and the fingers in space. Therefore the combination of more than one chereme creates a unit of meaning and form. The following picture (7) shows the LIS sign for DOG, which is realized with the so called B-handshape on the signer’s chin, with the hand palm facing downwards and with a contact movement.

(7)<sup>6</sup>



LIS sign for ‘dog’

In spoken languages two phonemes are distinct and meaningful if there exist at least two words which vary only for that phonemes. A typical example in Italian is the pair *pasta-basta*, which are different only for one of the phonemes composing the two words, /p/ and /b/ respectively.

At the same way, the variation of one and only parameter provides a minimal pair, and this means that two parameters are different if there are at least two signs with a different meaning, differing only for a parameter: the location, the handshape, the hand orientation or the movement.

---

<sup>6</sup> The picture in (7) is taken from Radutzky (1992)

The following pictures in (8) exemplify a minimal pair differing only for the location parameter:

(8)<sup>7</sup>



LIS sign for 'to speak'



LIS sign for 'to know'

In (9)<sup>8</sup> the two signs differ only for the handshape parameter:

(9)



LIS sign for 'to cycle'



LIS sign for 'to change'

(10) is a clear example of two signs differing only for the parameter of movement:

---

<sup>7</sup> The drawings in (8) are taken from Radutzky (2001)

<sup>8</sup> The drawing from (9) to (22) are taken from Caselli, Maragna, Volterra (2006)

(10)



LIS sign for 'Africa'



LIS sign for 'to make a mistake'

Finally, the following drawings in (11) exemplify two signs differing only for the hand orientation.

(11)



LIS sign for 'father'



LIS sign for 'man'

Formational parameters vary among sign languages: some parameters are used in all sign languages, others are more frequent in some sign languages than others and some distinctions can be meaningful for a language, but not for another one

(Caselli, Maragna and Volterra, 2006). In LIS the handshape 'A' in LIS (fist hand) and the handshape 'S' (fist hand with extended thumb) are two different handshapes: as we saw in (9), the different handshape form a minimal pair. This is not the case for ASL, where handshape 'S' is a variant of the handshape 'A'. Moreover, some sign languages never use some handshapes.

In LIS for example, the handshape 'W'(figure (12)) is very rare, whereas it is extensively common in BSL and ASL.

(12)



'W' handsape

Another interesting aspect about handshapes is that one handshape can have different connotations in different sign languages. For example, in BSL the handshape "I" has a negative connotation (see figure (13)), whereas in LIS a negative connotation is conveyed by the handshape showed in (14):

(13)



Handshape 'I'

(14)



Handshape '4'

For this reason we can say that formational parameters have more than a phonemic function. The American linguist Boyes-Braem (1981) first introduced the concept that some handshapes occur in signs associated to the same semantic field. These studies were first conducted in ASL and were confirmed then for other sign languages, where it was demonstrated that not only handshapes, but also movements and locations are associated with meanings (Volterra 1987; Radutzky, 1992; Pizzuto et al. 1995 for LIS).

Let us see some examples of visual metaphor in LIS taken from Caselli, Maragna, Volterra (2006). The handshape '4', as you can see in the figure below (15), is generally associated to objects in parallel rows, for example the crown of a king (figure (15a)) or people in procession (15b), which differ from people in a demonstration (15c) with handshape '5', to indicate that they are not distributed in a confused way rather than ordered and lined.

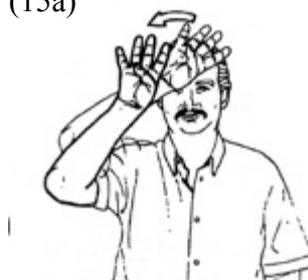
(15)



**4**

Handshape '4'

(15a)



LIS sign for 'king'

(15b)



LIS sign for 'procession'

(15c)



LIS sign for 'demonstration'

The visual metaphor does not work for all signs but only for some of them. To make a generalization, we could say for example that handshape 'B' (16) usually refers to flat closed surfaces, like the sign for DOOR (16a); handshape 'F' (17) represents the grabbing of a very light and little object, like in PAPER (17a).

(16)



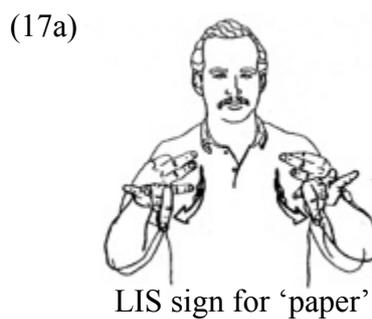
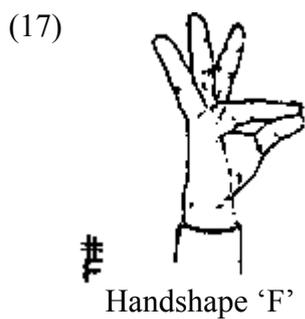
**B**

Handshape 'B'

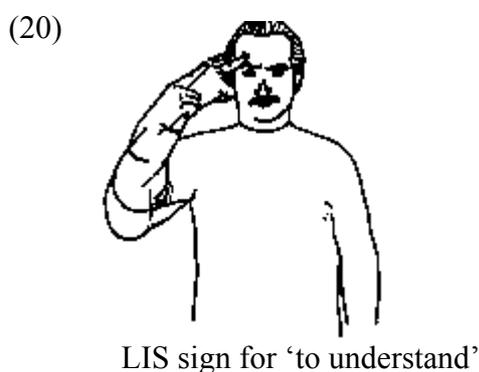
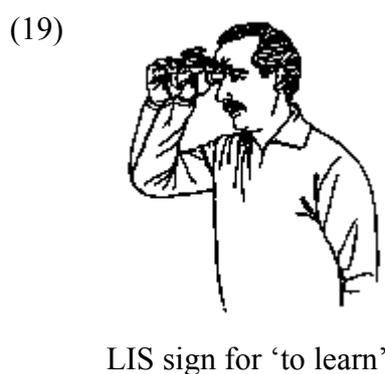
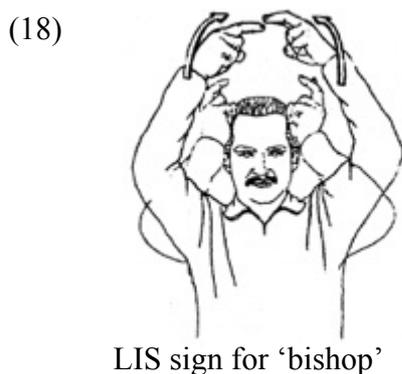
(16a)



LIS sign for 'door'



Also other parameters, like location, have semantic meaning. Signs can be articulated both on the signer's body or within the signing extending from the signer's head to his waist and from shoulder to shoulder. In the first case, they often show a relationship with that part of the body. For example, signs articulated near the signer's head generally remind of objects that can be put on in it, like the hat in BISHOP (18), or to activities of the mind, like TO-LEARN (19) or TO-UNDERSTAND (20)



The same can be said for verbs articulated near the eyes for activities related to the act of seeing, near the ears for what concerns the hearing, the mouth for the activity of eating or speaking. The chest is generally connected to emotions and feelings.

It is important to remember that visual metaphors vary among sign languages, they choose them in an arbitrary way to express the same concept (Caselli, Maragna, Volterra, 2006).

#### 4.1 Nonmanual markers (NMMs)

There is some debate about whether nonmanual markers (henceforth NMMs) constitute a fifth phonological parameter. In this paragraph we will analyse how nonmanuals features can change the meaning of a sign and constitute a minimal pair. Let us focus before on their nature in communication and more deeply in sign language.

In a face-to-face communication, hearing people use facial expressions to convey communicative purposes, whereas the syntactical information is deputed to the auditory channel. On the contrary, sign languages use specific facial grammatical expressions, which have a basic role, simultaneously with the use of the hands and the space in the structuring of a message. It is important to remember that simultaneity in sign language is encouraged by the fact that manual articulators perform a slower movement, to the contrary of spoken languages which can count on the speed of articulation and transmission of sound waves (Wilbur, 2009). In fact, an evident distinction between spoken and sign languages is that the former convey information in a sequential way (for instance, phonemes like sentence structures occur in sequence), whereas the latter make a great use of simultaneous information in a multi-layered structure, even if also signs are produced and perceived in sequence (Sandler & Lillo-Martin, 2006; Wilbur, 2000; Wilbur, Klima & Bellugi, 1983).

NMMs comprise a number of elements like head position, oral components, shoulders and upper body movements, facial expressions and gaze, which all contribute to convey messages in conjunction with manual signs.

It is important to point out that grammatical and affective nonmanual articulators differ in a substantial way for what concerns their shape, contour, timing, duration and activation of specific muscles (Baker-Schenk, 1983). Also from a neurolinguistic point of view (Bellugi *et al.* 1989; Corina 1989) it is proved how linguistic and affective NMMs are different in different contexts and for different purposes.

Looking at the time of acquisition of nonmanuals can make a first distinction: the use of facial expressions for affective purposes is acquired very early, whereas the use for

grammatical functions is acquired later (Andersson & Reilly, 1997, 1998; Reilly, 2000; Reilly & Bellugi, 1996; Reilly, McIntire, & Bellugi, 1991; Reilly, McIntire & Seago, 1992).

A second distinction to be pointed out concerns the scope and timing in which they occur, that is that the onset and offset of affective and grammatical nonmanuals: gradual and undefined for the first case, abrupt and specific of some facial muscles for the second one (Baker-Schenk, 1983; Liddell, 1978, 1980). The placement of grammatical nonmanuals is therefore more controlled and regulated with respect to signs, in addition to the fact that their presence is mandatory, on the contrary of the facultative presence of the affective expressions.

Before considering NMMs from a phonological point of view, it is interesting to focus on the proposal which compared NMMS to prosodic intonation in spoken languages (Padden 1990; Reilly, McIntire, Seago, 1992; Nespor and Sandler, 1999). Sandler (1999c) described the intonational system of sign languages by using the term “superarticulation”, supporting the idea that whereas intonational phrasing in spoken languages is conveyed by changes in pitch and pausing, it is marked by variations in facial expressions in sign languages. To make an example, in many sign languages yes/no questions are marked by eyebrows raising; Wilbur (1994) claims that boundaries of syntactic phrases in ASL are marked by head position changes.

The proposed prosodic analyses will be interfaced with a furtherer analysis of NMMs in the section about the syntactic level in sign language.

#### 4.1.1 Lexical nonmanual markers

If we focus on NMMs from a phonological point of view, we can notice how some lexical signs require specific NMMs.

Most signs referring to feelings and emotions are accompanied by specific facial expressions or body positions, which seem to complete and reproduce directly the meaning of the manual sign. In LIS, the sign ANGRY is accompanied by lowered eyebrows, the torso tends backward and the facial expression is serious.

The NMMS accompanying the sign FAT (cheeks and chest puffed out, arms creating a round shape) prove that they often convey information about physical characteristics.

On the phonological level of sign languages, it is also important to stress the role of the oral components, expressions of the mouth associated with manual signs. According to previous studies (Vogt-Svendson 1984; Schroeder 1985) cited by Franchi (2004), oral components can be divided into two groups: the so-called *Borrowed Word Pictures*, and *Special Oral Components*. The first group refers to mouth movements, accompanying a sign and coinciding to the word of the corresponding spoken language, without sound production. A typical example of this can be the sign for WORK, even if it is mainly the first letter that is stressed. In fact it is important to point out that in LIS the part of the word that is articulated is the most dominant and visible one for the signers (Franchi, 1987). For example in LAWYER the emphasized letter is the salient consonant ‘v’ of the Italian word ‘avvocato’.

Special Oral Components have nothing to do with a correspondence with spoken words: they reproduce the effects and sounds derived from perceptive feelings, inside the body. A Special Oral Component can reproduce a strong vibration felt, connected to a strong noise; sometimes there is no correlation between the sign and its mouthing. The LIS sign corresponding to ‘to loan’, for example, is accompanied by a cheek puffed out, the air is released with fast movements of the lips, opening and closing repeatedly, and it creates a minimal pair (see (21)) with the sign correspondent to ‘to work’, produced with the same manual sign, but articulated mainly with the initial letter ‘l’, standing for the Italian word ‘lavoro’ (Franchi, 1987).

(21)



‘to loan’



‘to work’

Special Oral Components are also used to specify the size and to represent for example minimal quantities (the tongue protrudes between teeth), abundant quantities (puffed cheeks) or maximal quantities (teeth biting the lower lip).

In this paragraph we have demonstrated that, despite the great difference between the articulators employed in the two modalities, sign languages display a phonological structure.

According to Sandler and Lillo-Martin (2006: 272), the phonology of spoken and signed languages shows several universals. A first one is “the existence of a sublexical level of structure that is meaningless, discrete, finite, and systematically organized”.

A second one is that also sign languages, like spoken languages, have a prosodic structure, found in nonmanuals like facial expressions, rhythmic devices and body postures.

It is evident that there are also undeniable differences between the phonological organization of the spoken and signed languages, and this is mainly due to the “physical production and perception system” (Sandler and Lillo-Martin, 2006: 278) of the two different modalities.

In the next paragraph we will see how sign language display a morphological structure.

## 5. The morphological level

Another common belief about sign languages is to think that they lack a morphological system and they cannot therefore create new words on the basis of the ones already existing (derivational processes), nor have markers for the grammatical functions in the sentence (inflectional processes).

As I will show below, these assumptions are not true, as sign languages display a rich derivational/lexical morphology and inflectional morphology. The first one includes regularities that distinguish or mark relations among classes of signs (nouns and verbs), the second one marks the specification and modulation of the meaning of the signs, like the grammatical categories of person, number, tense and aspects of verbs (Pizzuto & Corazza, 1996).

Despite many contrasting opinions (Aronoff *et al.*, (2005); Bellugi and Klima (1982); Erlenkamp (2000); Sandler and Lillo-Martin (2006)), sign languages seem to belong to the agglutinative type of morphological classification, that means that the meaning of a word is based on a group of morphemes easily identified and segmented, each

one independent one from another but clustered together (Kegl *et al.*, 1999; Schuit, 2007, Schwager, 2004 for Russian Sign Language).

LIS also displays an agglutinative morphology and this is a furtherer evidence of its independence from spoken Italian, which has a fusing morphology: according to Lyovin (1997) fusing languages “fuse” together inflectional categories, so that a morpheme can carry more categories. To make an example, in the Italian word ‘alberi’ (*trees*), the last suffix –i carries two meanings: the word has masculine gender and plural number.

In order to analyse the morphology of a language, it is necessary to identify the classes of words (nouns, verbs, determinants, adjectives, pronouns, adverbs, prepositions and conjunctions), and their collocation in the sentence, the suprasegmental features and their agreement with other elements (Bertone, 2011). In the next paragraph we will focus on the morphology of nouns and verbs in LIS: their inflection is thought to be due to a change in movement, location and orientation, so these three components can be considered morphological markers.

## 5.1 Nouns and verbs

Generally speaking, in every language nouns and verbs are strictly connected from a semantic and morphological point of view. In LIS, as for other spoken and signed languages, nouns and verbs do not belong to a homogeneous and unique morphological class. As a general rule, the most frequent process by which a noun becomes a verb happens when changing movement of a sign: nouns have repeated and restrained movements, verbs can have single, repeated or continuous movement (Supalla and Newport, 1978 for ASL, Volterra 1987; Pizzuto, Giuranna, and Gambino 1990; Pizzuto, Corazza 1996 for LIS).

Nouns can be divided basically into two classes: the inflectional one, which allows inflection, and the invariable one, which does not. The behaviour of nouns LIS can condition the behaviour of verbs in LIS, in particular of those verbs that can be inflected to agree with their arguments (Pizzuto, 1987; Pizzuto *et al.*, 1990, Pizzuto , Corazza, 1996).

Let us now see how a noun is different from a verb in LIS: first of all a sign must be observed in its citation form, in an isolated context. Otherwise

"[...] any systematic alteration of the citation form of a sign that conveys specific grammatical or discourse, and that applies in the same manner to a set of signs, is considered to be a morphological inflection". (Pizzuto & Corazza, 1996: 171)

It is true that in LIS, not all nouns and verbs are related morphologically, they are simply classified as nouns signs referring to people, animals or objects, or as verbs if they refer to actions or states. This is the case for nouns like DOG, or for verbs like KNOW.

In the other cases, nouns and verbs are strictly related from a semantic and morphological point of view, and the relationship is evident also in the citation form. A first subclass of nouns and verbs of this type is that one including nouns and verbs related semantically, referring to objects and actions and that share most but not all formational parameters (the handshape is always the same). A typical example of this subclass is the pair SCISSORS and CUT-WITH-SCISSORS in (22)).

(22)



LIS sign for 'scissors'



LIS sign for 'cut with scissors'

The only characteristic that differentiates them is the type of movement: shorter and static for the noun, longer and directed forward for the verb. The movement is therefore responsible for the different interpretation of the two signs.

A second subclass includes nouns and verbs that share all the formational parameters (handshape, movement, orientation and location) and whose difference can be detected only by observing them in their semantic, distributional and morphosyntactic context. Pizzuto and Corazza (1996) make an example with the citation form of the sign TELEPHONE: the noun and the verb are almost identical and the verb can only be detected in cases where the verb is modified in its aspect, such as when accompanied by a specific slow and repeated movement meaning 'for a long time'

(Franchi, 1987; Pizzuto, 1987; Pizzuto & Corazza, 1996). In a similar way, a noun can be easily detected if accompanied by a lexical modifier, such as NEW.

### 5.1.1 Inflectional and invariable morphology of LIS nouns and the role of the space

According to Pizzuto (1987) and Pizzuto *et al.* (1990) nouns in LIS can be divided into two morphophonological classes:

- 1- nouns articulated in neutral space;
- 2- nouns articulated on the signer's body.

In sign languages, space is defined as 'neutral' only from a phonological perspective, as there are not minimal pairs that can be distinguished depending on their articulation in the signing space (Verdirosi, 1987). According to a previous research by Stokoe's *et al.* (1976), the neutral space must be referred as that "that region in front of the signer's body where the hand move and where a large number of signs are executed" (Pizzuto & Corazza, 1996:175).

Space turns out to be linguistically relevant from a morphological point of view. In fact, two morphological processes seem to characterize the two classes of nouns:

- the first one marks inflection for plurality, that is conveyed by modifying a sign with a repeated displacement in the neutral space in at least three points (Pizzuto & Corazza, 1996). This process is available only for nouns articulated in neutral space. A LIS example is the sign TOWN (figure (23)). Nouns articulated on the body are inflected for plurality by adding a lexical modifier like the quantifier MANY (figure (24)<sup>9</sup>).

---

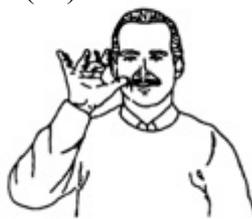
<sup>9</sup> The explanatory drawing is taken from Pizzuto & Corazza (1996)

(23)



LIS sign for 'town'

(24)



'woman'



'many'

- The second morphological process is again available for nouns articulated in the signing space but not on the body. It allows the modification of the place of articulation, specifying or marking a nominal argument for deictic-anaphoric reference and for agreement of the verb with the same argument. Any point of the space in which a space is articulated becomes “marked” as opposed to the neutral one. Pizzuto & Corazza (1996) give a clear example of this by showing how in (25)<sup>10</sup>, the sign KNIFE, since its citation form is produced in the neutral space, can be articulated into a marked position in the signing space. Consequently, the verb BREAK is displaced in the same location as the noun to mark agreement with it. Let us now see how verbs are classified under a morphological point of view and how the use of space is central to carry out morphological verb agreement.

(25)



'knife'



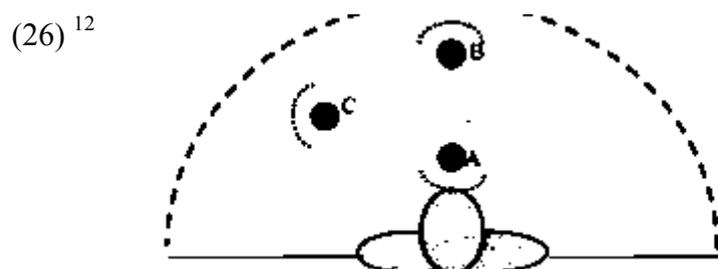
'to break'

### 5.1.2 Verbal morphology in LIS

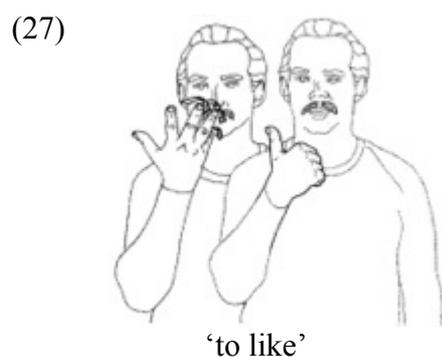
According to previous studies on LIS (Volterra, 1987; Pizzuto, Giuranna, and Gambino (1990), inspired by the first studies on verbs in ASL (Padden (1983; 1988), LIS morphological verbs are divided into three main classes on the basis of their place

<sup>10</sup> The drawing in 24) is taken from Pizzuto & Corazza (1996).

of articulation. In sign languages verb agreement takes place in the signing space through the association of initial and final points of the verb movement with points of the neutral space, so called *loci* (Lillo-Martin & Klima, 1990), referring to the verb arguments. To better understand how it occurs, it is useful to divide the signing space into sections (see 26), each one corresponding to a grammatical category of person. In this way, the signer corresponds to the first person (A), the addressee to the second person (B), any other referents to the third person (C)<sup>11</sup>



Let us focus now on verb classes: verbs of the first class are defined as “plain verbs” (Padden, 1983), they are articulated near or on the signer’s body (head, shoulders or chest) so they have an invariable form, they do not allow orientation change or movement direction, so they cannot agree with their arguments. An example of a plain verb in LIS is provided in figure (27)<sup>13</sup>.



A second class includes verbs defined “agreement verbs” (Liddell and Johnson (1987)). They move along the signing space from a referential point to another one, and show overt agreement by altering both or either one of their points of articulation

<sup>11</sup> In LIS, the first person is represented by the index fingers pointing towards the signer’s body; for the second person it points in front of the signer, the third person is conveyed with the index pointing to the left or to the right.

<sup>12</sup> The explanatory drawing is taken from Bertone & Cardinaletti (2007)

<sup>13</sup> The explanatory drawings in (27), (28) and (29) are taken from Radutzky (2001)

(figure (28)). The movement direction provides information about the syntactic role of the arguments.

(28)



A third class includes the so-called “spatial verbs”, that are articulated in the signing space but whose movement is restricted only to one specific point of articulation. These verbs agree only with one argument, the external argument in intransitive verbs (see the verb ‘to fall’ in (29)), the internal argument in unaccusative verbs and transitive verbs (Pizzuto, 1986).

(29)



In the last two categories the movement of the verb between the locations associated with discourse referents specifies the grammatical relations. The role of the subject and object is evident by looking at the locations associated with them during the movement of the verb. In a LIS sentence like in (30), the location in which the verb GIVE starts is associated with the subject, whereas the location in which the verbs ends coincides with the object.

- (30) JOHN<sub>i</sub> MARY<sub>j</sub> CANDY GIVE<sub>j</sub>  
'John gives Mary a candy'

## 5.2 Classifiers

We have seen how morphology interacts with verbal morphology, but it can also play a significant role with classifiers morphology. Classifiers have been given many different labels, but it was Nancy Frishberg (1975) who first focused on classifiers in sign languages. She observed how sign languages make large use of them due to the visual-spatial modality they employ.

Sandler & Lillo-Martin (2006:76) refer to classifiers as:

"[...] forms representing different classes of nominal in combination with other elements. The noun class forms are represented by a set of handshapes and it is these handshapes that are [...] called classifiers. "

Mazzoni (2008: 38) describes classifiers as:

"[...] variable elements which, generally, occur in post-nominal position and which show a systematic relationship with the referent argument of the predicative root."

Classifiers are therefore equivalent to morphemes that mark salient characteristics, in particular the shape or the semantic category of their nominal referents. So, for example, the extended palm or handshape 'B' (figure (31)), if related to a noun, generally refers to entities with flat and compact surfaces, such as walls, cars, doors, tables, and so on. Depending on the kind of information one wishes to provide, a particular classifier handshape is chosen: for example, as Corazza (1990) and Corazza and Volterra (1987) have pointed out, the H handshape (see (32)<sup>14</sup>) refers to "linear objects with some, but relatively limited width" (like keys, knives and persons).

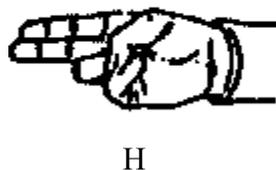
---

<sup>14</sup> The explanatory drawing is taken from Russo (2004)

(31)<sup>15</sup>



(32)



In sign languages, classifiers are selected basically on iconic rules and they are basically divided according to their predicative nature, and the manual handshapes with morphological value are mainly combined with predicative roots (Mazzoni, 2008).

The first 4 predicative roots combining with classifiers morphemes have been identified by Supalla (1982, 1986), McDonald (1982), Schick (1987), Liddell & Johnson (1987), Corazza (1990).

For what concerns LIS, we will focus on Mazzoni's model (2008) who expanded the first models on the basis of Engberg-Pedersen's studies about Danish Sign Language (DSL) (1993) and Benedicto and Brentari's ones about ASL (2004). According to Mazzoni (2008), there are 4 predicative roots that combine with semantic categories. The predicative roots are:

- 1) action or movement root, representing the movement of the referents. An example can be the handshape B (see figure (33)<sup>16</sup>), which combined with the movement of the hand realized the movement of a vehicle);

(33)



<sup>15</sup> The picture is taken from Volterra (2004)

<sup>16</sup> The pictures from (33) to (40) are taken from Mazzoni (2008)

- 2) imitation or manner, describing the type, the direction or the manner of an action (see an example of movement direction in (34), meaning ‘to walk forward and backward’));

(34)



- 3) contact root: the movement of the hand shows the position and the orientation of the referent entity, without specifying the kind of movement. Example (35) shows a specific position of a vehicle:

(35)



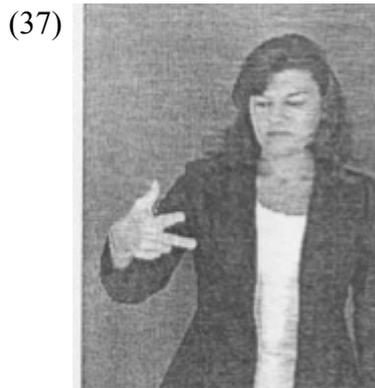
- 4) extension or stative-descriptive root: the movement of the hand shows physical characteristics of an entity, or the position of some elements in relation one to each other. The movement of the hand represents the form or the location of the described object (36):

(36)

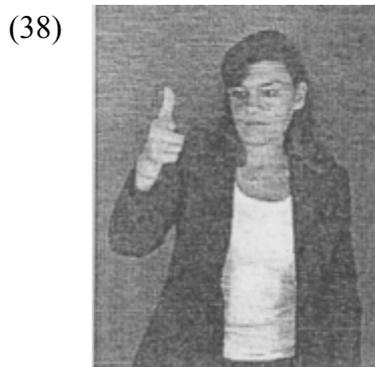


The semantic categories combining with the predicative roots are the following:

- 1) whole entity classifiers (semantic classifiers, instrumental classifiers, descriptive classifiers): the handshape shows the semantic class to which the nominal referent belongs. The figure in (37) shows an example of handshape '3' referring to a vehicle:



- 2) handling instrumental classifiers: the handshape refers to the act of handling objects or instruments (see figure (38), representing the handshape for 'drill');



- 3) extent-surface classifiers: they refer only to some characteristics of an entity and not to its whole. In this category we find extension classifiers, surface classifiers, perimeter classifiers, depth and width classifiers (figure (39) is an example of extension classifier)



- 4) limb/body part classifiers: they refer to specific part of the body (they can refer also to animals), generally head, legs, feet, eyes, tongue, paws, tails and so on (see an example of the classifier used for HEAD in (40);

(40)



In this last paragraph we observed the morphological function of classifiers in sign language. Pizzuto and Corazza (1996) explain how they can relate to any type of noun, regardless of inflectional features. In fact, since they are produced in the signing space, they can be freely displaced and also repeated to convey plurality. The only constraint they must obey is that they must always be preceded by the noun they refer to. It is not still clear whether LIS classifiers can be analysed only as bound, formational morphemes (Corazza, 1990) or whether they can also be considered as free morphemes, fulfilling pronominal functions (Corazza et al., 1984; Pizzuto, 1987).

### 5.3 Morphological processes involving NMMs

As we have already mentioned, NMMs play several grammatical functions in different sign languages (Sandler, 1999). In 4.1.1 we have seen how, phonologically speaking, they constitute a part of the signs and how they can also distinguish minimal pairs.

In morphology, they can function as morphemic markers as they can convey adjectival or adverbial functions by adding information to the manual sign (Schuit, 2007). Morphological NMMs are used as augmentative and diminutive morphemes. In Franchi (2004) we find an example of a variation of the LIS adjective BIG in its superlative degree VERY-BIG (41)<sup>17</sup>.

---

<sup>17</sup> Explanatory from (41) to (43) are taken from Caselli, Maragna, Volterra (2006)

(41)



LIS sign for 'big'



LIS sign for 'very big'

The sign BIG in its superlative degree is exaggerated and expanded in its dimensions, while the nonmanual features accompanying the sign are eyes and mouth opened. Let us also see the variation for the adjective LITTLE and its superlative form VERY-LITTLE (42). In the second case, the sign is more contained, the head is lowered, the mouth is closed, the eyes are squinted and the shoulders are pushed forward.

(42)



LIS sign for 'little'



LIS sign for 'very little'

At the same time, NMMs are employed to express many manner and degree adverbs. Let us consider the LIS verb TO-MEET: in the sign TO-MEET-SUDDENLY(43), the altered manual parameters of the citation form of the verb (the movement of the verb is faster and more stretched) are accompanied by nonmanual features alterations (Franchi, 1987; Celo, 1997; Ajello, Mazzoni and Nicolai, 1998): raised eyebrows, opened mouth and eyes, upper body (shoulders, neck, head) pushed forward (Franchi, 2004).

(43)



LIS sign for 'to meet'



LIS sign for 'to meet suddenly'

## 6. The syntactic level

To prove that sign languages are real languages, it is important to verify that they also have a full syntax, since this is the most central component of the grammar of a language.

One of the fundamental properties of human language is that, given a limited number of pieces, it is possible to create an unlimited number of utterances: at the syntactic level this property is called recursiveness. In this sense, structures are embedded in other structures to create subordinate clauses.

Since we are showing that also sign languages adhere to universal properties, just like all spoken languages, we would expect them to have this essential property.

Talking of subordination, in 1977 Thompson tried to look for subordination in ASL and, since he could not find what he considered to be an evidence of subordination, namely, the equivalent of functional words, he claimed that ASL lacked subordination. He thought ASL expressed the equivalent of a subordinate clause by employing coordinate clauses.

The evidence Thompson was looking for to find subordination in ASL were several, we will see three of them. First, he looked for overt complementizers in ASL that could be compared to the English ones, such as 'that' in 'I know *that* Susan will win' (Sandler & Lillo-Martin, 2001): he could not find any comparable. Secondly, he analysed relative clauses and also in this case he found no complementizer, but only what he considered to be a sequence of signs like in the example below:

- (44) English target: 'The girl Asa gave the dog to is pretty.'  
ASL response: ASA GIVE DOG GIRL INF PRETTY IND  
(Roughly: Asa gave the dog to the girl and she is pretty)  
(Sandler & Lillo-Martin, 2001:537)

Thirdly, he could not find embedded sequences in structures with clausal complements selected by adjectives like 'happy', as in 'He is happy that he passed' (Sandler & Lillo-Martin, 2001).

So the equivalent of the English sentence 'I regret that Asa had to leave', would be signed as MUST ASA MUST GO/ SORRY in ASL (roughly: 'Asa must go. Sorry') (Sandler & Lillo Martin, 2001: 537).

What Thompson failed to discover is the presence of an overt marker of subordination. Liddell (1980) argued that Thompson's hypothesis was incorrect: in fact he showed that ASL not only has a coordination system, but also a subordination one, with sentential complements, relative, clauses and adverbials, and this subordination system is guaranteed by nonmanual markers which include facial expressions and movements of the signer's body (Sandler & Lillo-Martin, 2006).

It is evident that one of the reasons why Thompson thought that no subordination was available in ASL is that he was looking for clauses that could look like more English. In this paragraph we will analyse sign languages from the syntactic point of view, focusing on word order, simple and complex clauses and the role of syntactic nonmanual markers.

## 6.1 Word order in LIS

Word order is one of the criteria employed for the typological subdivision of world languages. Starting from the 70s, sign languages have been included in the study on word order<sup>18</sup> and this has turned out to be fundamental to ascertain their linguistic status.

---

<sup>18</sup> (Fisher, 1975; Liddell, 1980; Aarons, Bahan, Kegl, Neidle, 1992; Kegl, Neidle, MacLaughlin, Hoza, Bahan, 1996 for ASL; Beugnette and Billiant, 1981 for French Sign Language (LSF) Deuchar, 1983 for British Sign Language (BSL); Bergman and Wallin, 1985 for Swedish Sign Language (SSL); Massone and Curiel, 2004 for Argentine Sign Language (LSA); Schembri *et al.* 2002; Johnston and Schembri, 2007 for Australian Sign Language (AUSLAN))

Word order (the position of the subject, the verb and the object in a sentence) is a parameter that is fixed very early during language acquisition as it plays a crucial role in the comprehension of the elements within a sentence.

Although Kayne's theory (1994) supports the idea that the word order Subject- Verb-Object is universal, it has been proved that surface word order can vary across languages through language-specific movement operations. This variation depends on the head-direction parameter which can be of type 'head-complement' or 'complement-head'.

The word order parameter is acquired early by infants (Christophe, Nespoulet, Guasti and Van Ooyen, 2003): the idea is that infants learn the word order of their language and by doing so they infer some of the syntactic properties of their mother tongue on the basis of its prosodic characteristics (Gleitman & Wanner, 1982; Mazuka, 1996; Morgan & Demuth, 1996).

Among all the possible word orders, the most common ones are three: 1) Subject-Object-Verb (SOV); 2) Subject-Verb-Object (SVO); 3) Verb-Subject-Object (VSO). The orders VOS, OSV, OVS are more uncommon relative to SVO, SOV and OVS (Comrie, 1989:81).

As for what concerns sign languages, the first studies proposed that word order is free or that sign languages have not a phrasal hierarchical structure due to the fact that they use nonmanual markers and a simultaneous production of the constituents.<sup>19</sup> Nevertheless, many researchers have showed how in different sign languages there are non-random word orders, which are different from their corresponding spoken languages. Therefore the same word order variation found for spoken languages, is attested in sign languages.<sup>20</sup>

One of the characteristics of languages is that their basic word order (also called 'non-marked') can be modified by moving constituents containing new or old information

---

<sup>19</sup> See Friedman 1976a, Bouchard and Debusson 1995 and Bouchard 1996 for ASL; and Schlesinger 1971 for Israeli Sign Language (ISL).

<sup>20</sup> Sign languages with predominant SOV order are German Sign Language (DGS: Hänel, 2005a,b; Happ and Vorköper, 2005; Pfau, 2001), Japanese Sign Language (JSL: Suzuki and Kakihana, 2002; Abe, 2007), Indo-Pakistan Sign Language (IPSL: Zeshan, 2000), Dutch Sign Language (NGT: Coerts, 1994), Al-Sayyid Bedouin Sign Language (ABSL: Sandler, Meir, Padden, Aronoff, 2005). Sign languages with attested predominant SVO word order are: ASL (Aarons, Bahan, Kegl, Neidle, 1992; Kegl, Neidle, MacLaughlin, Hoza, Bahan, 1996), Brazilian Sign Language (LIBRAS: de Quadros, 2003), Hong Kong Sign Language (HKSL: Sze, 2003), Croatian Sign Language (HZJ: Milkovic, Bradaric-Joncic, Wilbur, 2007).

to the left or right periphery of the sentence, so that the order will turn out to be ‘marked’. In spoken languages, movement of the constituents is often accompanied by a different intonation contour, marking a focussed or topicalized constituent.<sup>21</sup> Sign languages display the same mechanism: an internal constituent can be moved from its original position to the right or left periphery of the sentence and this is possible thanks to the activation of specific NMMs (see example (45) below for ASL).

- (45) re  
JOHN, MARY LOVE  
‘Mary loves John’  
(Neidle *et al.*, 2000)

As for LIS, the first studies which focussed on word order were carried out by a group of researchers from the CNR in Rome lead by Virginia Volterra (Volterra *et al.* 1984) and were then carried out by Laudanna (1987) and Laudanna & Volterra (1991).

#### 6.1.1 Laudanna’s study (1987)

Laudanna’s (1987) study aimed to analyse two types of data: a first corpus containing a grammatical judgments task, and a second corpus derived from elicited production data. According to the results related to the first corpus of data, the linear order considered the “most acceptable” is Subject-Verb-Object (SVO) as in (46).

- (46) JOHN WATCH TELEVISION

The other orders seem to be derived from the dislocation of some elements from their original position.

Marked orders are obtained through the focalisation or topicalization to the left (O,SV) or to the right (VO,S) of some constituents. Following Laudanna’s (1987) study, when the verb is reversible<sup>22</sup>, the sequence Noun-Verb-Noun is interpreted as

---

<sup>21</sup> Focused constituents contain new information while topicalized constituents convey information that is shared between the speaker and his interlocutor.

<sup>22</sup> With reversible sentences we mean that the action of the verb can be inverted so that also the order of the arguments will be inverted. For example, in the sentence *The mother kisses the daughter*, the verb *to kiss* is reversible, so that if we invert the order of the arguments (*the*

SVO (47), the sequence Noun-Noun-Verb as OSV (48) and the sequence Verb-Noun-Noun as VOS (49).

- (47) MOTHER KISS DAUGHTER  
'The mother kisses the daughter'
- (48) MOTHER DAUGHTER KISS  
'The daughter, the mother kisses'
- (49) KISS DAUGHTER MOTHER  
'(She) kisses the daughter, the mother'

According to Laudanna (1987) the SOV order is accepted only with a pause between the two first elements or if the verb incorporates the object.

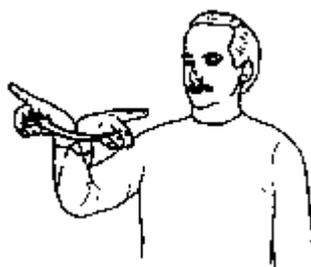
- (50) MOTHER, DAUGHTER KISS  
The mother kisses the daughter
- (51) JOHN APPLE EAT  
John eats an apple

Possessive constructions have the Possessor-Possessive Adjective-Owned Object order (see Laudanna's example in LIS (52)<sup>23</sup> followed by the explanatory drawing):

- (52) FATHER HIS RADIO  
'Father's radio'  
(Laudanna, 1987: 217)



FATHER



HIS



RADIO

---

*mother* and *the daughter*) the thematic role (agent and patient), and the syntactic role (subject, object) is modified.

<sup>23</sup> The explanatory drawings from (52) to (55) are taken from Caselli, Maragna, Volterra (2006)

As for negative sentences<sup>24</sup>, we find negation element in the sentence right peripheral position (Laudanna, 1987) (see example in (53) followed by the picture), whereas temporal modification elements is usually on the left of the sentence (see example in (54)).

- (53) I HOME GO NOT  
 'I don't go home'  
 (Laudanna, 1987: 218)



I



HOME



GO



NOT

- (54) TOMORROW I CINEMA GO  
 'Tomorrow I will go to the cinema'  
 (Laudanna, 1987: 217-218)



TOMORROW



I

<sup>24</sup> See paragraph 6.2.1 for furtherer analysis on negative sentences in LIS.



CINEMA



TO GO

According to this study, the interaction between order and the sentence type is crucial: when the sentence is reversible, the order SVO is the favourite one; when it is not reversible<sup>25</sup>, the order SOV prevails.

SOV word order prevails also when the relationship between the arguments is made evident thanks to the morphological use of the signing space and the classifiers.

In (55) we can see an example:

- (55) WOMAN STRAND STRAND-CUT-WITH-SCISSORS  
 ‘The woman cuts the strand with the scissors’  
 (Laudanna, 1987: 220)



WOMAN



STRAND



STRAND-CUT-WITH-SCISSORS

---

<sup>25</sup> In non reversible sentences the action can go only one way, because the inversion of the arguments of the verb causes a diverted meaning. So for example if we invert the arguments in *The child washes his hands* we will obtain a diverted meaning, like *His hands wash the child*.

### 6.1.2 Geraci's study (2002)

The second important study on word order is by Geraci (2002) who analysed data from spontaneous conversation among native and non-native signers and grammatical judgments from the production of professional sign language interpreters.

Geraci (2002) states that the non-marked order in LIS is SOV, whereas SVO is only found when in a sentence there is a heavy object (for instance if it is modified by a relative clause), like in (56)<sup>26</sup>, or when the signer needs to repeat something the interlocutor has not understood or if he reports something he reads from a newspaper or Teletext.

(56) DANIELE SERGIO BOOK GIVE  
'Daniele gives a book to Sergio'

In negative sentences the SVO word order is not accepted, whereas any other word order is rejected according to participants of the study.

### 6.1.3 Branchini and Geraci's study (2011)

In this study, data from spontaneous conversations from three groups of signers divided according to their ages (young; medium; old) have been collected from three main geographical areas (North, Centre and South) but it is fundamental to consider that the data from this study represent only partial results, as only three cities have been analysed. The main word orders that have emerged as almost equal are SOV (54%) and SVO (46%).

Two factors seem to influence word order: 1) linguistic factors (i.e. the presence of functional elements and the reversibility of the predicates); and 2) a social factor (geographical origins).

As for linguistic factors, when a sentence contains the functional elements DONE and the modal WANT, the word order is predominantly SVO (51,7%). With negative elements and the modals CAN and MUST the order prevailing is SOV (75,9%) (Branchini & Geraci, 2011).

---

<sup>26</sup> The example reported is taken from Geraci (2002)

As for the second significant linguistic factor, Branchini and Geraci show that while reversible predicates favour the SVO order (49,2%), non reversible predicates favour the SOV order (60,7%).

For what concerns the geographical origin factor, data show that signers from Bari and Rome prefer SOV order, while signers from Bologna the SVO order.

What emerges is that the position of the object is influenced by the kind of the functional element it occurs with: according to Branchini and Geraci (2011) this can depend on the different position in the hierarchical structure occupied by the different functional elements that can influence the position of the object, which will be before or after the verb. Data about reversibility of the predicates confirm Laudanna's (1987) and Laudanna and Volterra's (1991) first studies: the SVO order helps to make syntactic roles more evident, especially when the subject is not explicit and no facial expressions are employed: sentences with a Verb-Noun order are interpreted as involving the order Verb-Object.

As for the diatopic<sup>27</sup> variation, it seems that signers from the North prefer the SVO order, while those from Centre and South the SOV order, even if this is a hypothesis that has to be verified against the data collected in the other Italian cities.

## 6.2 Simple sentences and the role of syntactical NMMs

### 6.2.1 Negative sentences in LIS

Among the studies focusing on simple sentences in LIS, Geraci (2006a;b) analyses sentential negation in LIS, the position of negative markers and negative words (N-words) and their interaction with specific nonmanual markers. The analysis focuses on two negative manual signs, glossed as NOT (the hand is closed in a fist and the index finger points up, the hand moves twice from left to the right) and NEG (realised symmetrically with the two hands having the same handshape: a small circle formed by the index finger and the thumb, the other fingers are extended; the movement is similar to the precedent sign but more rapid and more local). Geraci also analyses two negative quantifiers (N-words), glossed as NOBODY, sharing the same handshape with sign NOT but produced with a single movement from right to left for the left hand, and from left to right for the right hand, and NOTHING, produced with the

---

<sup>27</sup> For the definition of diachronic and diatopic variation see chapter 2

same handsape as the sign NEG, but moving in small circles. All negative markers analysed by Geraci (2006) share the same distributional position, that is, they occupy a sentence-final, after the verb (see (57)):

- (57) CONTRACT SIGN NOBODY  
'No one signed the contract'  
(Geraci, 2006: 5)

When negation is expressed with N-words, the simultaneous presence of negative markers is not allowed and the presence of two negative markers within a sentence also leads to ungrammaticality, as shown in (58):

- (58) \*CONTRACT SIGN NOT/NEG NOBODY  
(Geraci, 2006: 5)

With respect to the position of negative markers with modals, Geraci claims that negation always follows modals in LIS (59).

- (59) GIANNI CONTRACT SIGN CAN NOT  
'Gianni cannot sign the contract'  
(Geraci, 2006: 4)

Besides, negative markers and N-words cannot co-occur with the aspectual marker DONE<sup>28</sup>.

Let us now focus on the NMMs employed in negative structures: both negative markers and N-words share the same facial expressions (side-to-side headshaking and lowered eyebrows). In the variety of LIS studied by Geraci, it is not possible to mark a sentence as negative only by using negative NMMs, no matter what the domain of the spreading is, as shown in (60)<sup>29</sup>. The NMMs always occur with a negative sign and they generally never extend over larger domains, as shown in (61). One exception is represented by the behaviour of N-words when occurring in argument position: in this case the NMM spread from the negative sign rightwards, as in (62).

---

<sup>28</sup> See Zucchi (2003) for a more exhaustive in-depth analysis of the temporal/aspectual marker DONE and the impossibility of its co-occurrence with negation.

<sup>29</sup> The line over the glosses indicates the spreading of the Neg-NMM.

(60) (\_\_\_\_\_(\_\_\_\_\_(\_\_\_\_\_  
 \*PAOLO CONTRACT SIGN  
 (Geraci, 2006: 5)

(61) PAOLO CONTRACT SIGN NOT <sup>neg</sup>  
 ‘Paolo did not sign the  
 contract’ (Geraci, 2006: 5)

(62) <sup>neg</sup>  
 NOBODY CONTRACT SIGN  
 ‘Nobody has signed the  
 contract’ (Geraci, 2006: 5)

### 6.2.2 Interrogative sentences

Interrogative sentences in LIS can be of two types: yes/no questions or wh-questions; the two types are marked by different NMMs. In the first case, they are characterized by raised eyebrows, in the second one they consist of furrowed eyebrows, slight and repeated headshake, squinted eyes, co-occurring obligatorily with the wh-element (Cecchetto *et al.*, 2009).

Cecchetto *et al.* (2009: 278-320) studied wh-interrogative pronouns (like *what*, *who*, *which*, *etc.*) in LIS: they seem to be equivalent to those employed by oral languages and occur always in sentence-final position, as shown in (63):

(63) GIANNI BUY <sup>wh</sup> WHAT  
 ‘What did Gianni buy?’  
 (Cecchetto and Zucchi, 2004: 1)

Wh-elements seem to occupy the last position of the sentence, even after adverbs (64), negation (65) and the temporal/aspectual marker DONE (66):

(64) ARRIVE-IN-TIME <sup>wh</sup> WHO  
 ‘Who arrived in time?’  
 (Cecchetto *et al.*, 2009:283)

(65) CAKE EAT NOT <sup>wh</sup> WHO  
 ‘Who did not eat the cake?’  
 (Cecchetto *et al.*, 2009:283)

- (66) HOUSE BUILD DONE  $\overline{\text{wh}}$  WHO  
 ‘Who built the house?’  
 (Cecchetto *et al.*, 2009: 283)

The wh-element appears in sentence final position also when it has an overt NP restriction, i.e. ‘which book’, whereas there are three options for the position of the NP restriction: it can remain in situ (67), it can be doubled (68), it can be pied-piped (69).

- (67) BOY<sub>i</sub> BOOK STEAL  $\overline{\text{wh}}$  WHICH<sub>i</sub>  
 ‘Which boy stole the book?’  
 (Cecchetto *et al.*, 2009: 285)

- (68) BOY<sub>i</sub> BOOK STEAL  $\overline{\text{wh}}$  BOY<sub>i</sub>-WHICH<sub>i</sub>  
 ‘Which boy stole the book?’  
 (Cecchetto *et al.*, 2009:285)

- (69) PAOLO STEAL  $\overline{\text{wh}}$  BOOK<sub>i</sub> WHICH<sub>i</sub>  
 ‘Which book did Paolo steal?’  
 (Cecchetto *et al.*, 2009: 285)

Doubling of the wh-element leads to ungrammaticality (70):

- (70) \*BOY-WHICH BOOK STEAL BOY-WHICH  
 (Cecchetto and Zucchi, 2004:2)

In WH-questions, NMMs are generally restricted to the wh-phrase in LIS, even if they can spread over a wider part of the clause: if the wh-phrase is the object of the sentence, the wh-NMM may spread over the verb and the object, but not over the subject, as shown in (71):

- (71)  $\overline{\text{wh}}$  GIANNI WHO KISS  
 ‘Who did Gianni kiss?’  
 (Cecchetto and Zucchi, 2004: 4)

If the wh-phrase is the clausal subject, the NMMs may occur optionally over the entire sentence, as in (72):



In LIS, the conditional clause obligatorily precedes the matrix clause and they cannot be inverted, unlike in spoken languages.

In addition to NMMs, LIS can introduce conditional clauses with an optional conditional lexical marker, such as IF, always introducing the conditional clause (see (75)):

- (75) cond  
IF RAIN IX-1 HOME STAY  
'If it rains, I (will) stay home'  
(Brunelli, 2011:229)

### 6.3.2 Relative clauses in LIS

Syntactically speaking, relative constructions are composed by two clauses, a dependent and an independent one, and a constituent shared by both clauses, called 'antecedent' (Branchini, 2007:146). Semantically, they can be restrictive or appositive: restrictive relative clauses univocally identify the referent they modify, appositive relative clauses add additional information about the referent that is already identified.

For LIS, Cecchetto *et al.* (2004a; 2006) first observed relative constructions which involve a special manual sign, which is glossed PROREL or PE in the literature, for the mouthing resembling the sound 'pe' which accompanies the manual sign, signed with "the wrist bent toward the floor, the hand closed with the index finger extended and moving from left to right" (Cecchetto *et al.*, 2006:16). Let us see an example of a relative clause in LIS (76):

- (76) rel  
[DOG<sub>i</sub> CAT CHASE PE<sub>i</sub>] [ (IX<sub>i</sub>) HOME COME ]  
'The dog that chased the cat came home'  
(Branchini, 2007: 144)

Let us now see the features of the sentence-initial clause in LIS:

- 1- it cannot be produced in isolation, but it must precede another main clause;
- 2- it is always characterised by the sign PE (always located at the end of the relative clause, after modals, aspect and negation) (Cecchetto *et al.* 2006)) which co-refers with an NP realized in the same clause, usually through agreement in space;

3- specific NMM are involved (raised eyebrows, tension of the eyes and upper cheeks, head tilt (Branchini, 2007)), which must obligatorily spread over the sign PE. Its presence over the rest of the sentence is subject to variation: it may spread over the entire clause as in (77), only over the sign PE (78) or over the material intervening between the antecedent NP and the sign PE (if the antecedent is the subject of the dependent clause 79)) or if the antecedent surfaces as the object (80):

(77)  $\overline{\text{DOG}_i \text{ CAT CHASE PE}_i}$   $\text{rel}$  [ (IX<sub>i</sub>) HOME COME ]  
 ‘The dog that chased the cat came home’  
 (Branchini, 2007: 163)

(78)  $\overline{\text{DOG}_i \text{ CAT CHASE PE}_i}$  HOME RETURN  
 ‘The dog that chases the cat came home’  
 (Branchini, 2007: 163)

(79) STUDENT<sub>i</sub>  $\overline{\text{EXAM DONE PE}_i}$   $\text{rel}$  ALL<sub>i</sub> PASS  
 ‘The students that took the exam all passed’  
 (Branchini, 2007: 163)

(80) MARIA TABLE<sub>i</sub>  $\overline{\text{BURN PE}_i}$   $\text{rel}$  NEAR CHILD PLAY  
 ‘The child plays near the table that Maria burnt’  
 (Branchini, 2007: 163)

The sentence-final position has instead the following features:

- 1- it can be produced in isolation;
- 2- it contains what Branchini (2007:145) calls a ‘correlate’, co-referent with the NP which PE co-refers with inside the sentence-initial clause.
- 3- a reduplicated form of the co-referent NP occurring in the preceding clause leads to ungrammaticality, as shown in (81):

(81) \*BOY<sub>i</sub> CALL PE<sub>i</sub> BOY<sub>i</sub> LEAVE DONE

## 7. Summary

The aim of this chapter was to claim and demonstrate the linguistic status of sign languages, trying to debunk some myths about them, and showing that they display the same features characterizing natural languages.

In order to reach this goal, §2 was devoted to dispel the most common misconceptions about sign languages and §3 supported the idea that sign languages can fulfil the same functions as spoken languages do, by providing also neurological evidence. In §4 I tried to sum up the basis of the phonological structure in LIS, in §5 the morphological level and in §6 I focused on the syntactic level and on some constructions in LIS.

Throughout the chapter I showed that NMMs play a crucial role, since they are exploited in all sign languages to mark several features: they provide lexical, morphemic information on lexical items but they also mark syntactic features like, for instance, negation, questions, conditions, relativization.

The second chapter focuses on sociolinguistic issues, analysing sociolinguistic variation in spoken and sign language communities, and introducing the main topic of this work, i.e. slang variation in sign language, specifically in LIS.

## CHAPTER 2

### A SOCIOLINGUISTIC PERSPECTIVE: LANGUAGE VARIATION

#### 1. Introduction

Language is by its nature a communal thing;  
that is, it expresses never the exact thing but  
a compromise—that which is common to you,  
me and everybody.  
-T.E. Hulme

This chapter aims at introducing the reader to some concepts on sociolinguistics both in spoken and signed languages, underlying the crucial and complex relationship existing between language and society, which necessarily coexists in a linguistic community.

In §2, I sum up some general definitions of sociolinguistics, which can subsume a wide range of perspectives. We will examine in depth the sociolinguistic variables, in which the relation between language and society is made evident, and where terms like ‘prestige’ and ‘stigma’ are very important to analyse the status of a language. Then we will move to sociolinguistic variation applied to sign languages, according to the first studies and considering also some peculiarities strictly connected to the Deaf population, such as ethnicity (we will focus in particular on the African American Black signing), gender (we will see a study about gender variation in Irish Sign Language), age of the signers, age of acquisition of a sign language, type of school attended. A description of diachronic variation, a particular type of variation that can occur in a language, will be provided, focusing our attention on LIS, following Frishberg (1975) and Radutzky’s previous studies (1989; 2009). We will also take in consideration part of an extensive collection of data and results of the LIS Corpus, to focus on how lexical and phonological variation occurs in LIS, which seems to be very strong all over the country, always taking into consideration the lacking of an official recognition of LIS and its consequent lacking of a standard variety. §3 sums up the relevant discussion.

## 2. Sociolinguistics: a general overview

As conceived by Hudson (1980: 4), sociolinguistics is “the study of the language in relation to the society”, so what is evident is the strong relationship between language and society. One of the fundamental characteristics of language is that it creates, defines and sustains society (Hudson, 1980).

The interrelation between language and society is not easy to define, several points of views have tried to sketch it out (Wardhaugh, 2006). One of those is that social structure may influence the linguistic behaviour: according to Chambers’ sociolinguistic model (1995), young children speak differently from older children, who speak differently from adults. Babies’ models are parents and their carers; as they grow up, they prefer to consider children of their age as models; as adolescents, their models are other adolescents, who will speak differently from adults to feel more independent and autonomous. Adults take other adults as models or current adolescents as a potential source of inspiration.

What is interesting to notice is that from babyhood, as soon as babies start to speak, they speak differently to different people (Giles and Powesland, 1975: 139). According to Hudson (1980:99), “language is an instrument of socialisation- the process whereby children are turned into fully competent members of their society”.

A second perspective, also known as the “Whorfian hypothesis”, considers the linguistic structure as the one influencing or determining the social structure: according to Whorf, the relationship between language and culture is so close that it is very hard to appreciate the one without a knowledge of the other. Furthermore, language would act like a filter through which speakers experience the world: their point of view depends on the different languages they speak.

A third point of view sustains a bi-directional influence, whereas a last hypothesis is that no relationship at all exists between language and society.

What is undeniable is that language and society are strongly linked by the so- called *speech community*: people feel to belong to a society as they share the same language (Hudson, 1980: 25-30).

Several definitions have been given to the concept of speech community concept, the simplest one comes from Lyons (1970:326) who claims that a speech community is made by “all the people who use a given language (or dialect)”, implying that no social or cultural unity is needed. A second definition focuses on the communication

within a community (Hockett, 1958:8), so what determines a speech community is the communication among the people, directly or indirectly. The idea is that if two communities speak the same language but they have no contact, then they will not be considered to belong to the same speech community. Another interesting definition of speech community is from Le Page and Tabouret-Keller (1985): the verbal behaviour of a individual aims to resemble the one of the others belonging to the same community, to identify with them, to observe and analyse the behavioural system, so that he can choose and adapt his own behaviour.

It is interesting now to consider the sociolinguistic variables of a language, which can be considered the relevant relationship between language and society.

## 2.1 Sociolinguistic variables

According to Fasold (1990: 223-224) a sociolinguistic variable is “a set of alternative ways of saying the same thing, although the alternatives will have social significance”. Social variables are therefore crucial, let us focus on Milroy’s definition (1987:10) of a sociolinguistic variable:

"A linguistic element [...] which co-varies not only with other linguistic elements, but also with a number of extra-linguistic independent social variables such as social class, age, sex, ethnic group or contextual style."

Every time we find a different realization of a linguistic element, we can recognize it as a variant, whereas a group of variants originates a variable (Berruto, 2004): every language is composed by a group of linguistic variations.

As a matter of fact, each natural language has a high degree of variability in all their use conditions (Sobrero, 1993; Berruto, 1995).

In every language variety we can distinguish basically five fundamental parameters: the diatopic variation, the diastratic variation, the diaphasic variation, the diamesic variation and the diachronic variation.

The diatopic variation is the variation arising from different geographical areas, different cities, so it is a variation along the dimension of space. If we think about standard Italian, it is distinct from local dialects, considered of lower ‘prestige’.

Prestige is the good evaluation given by the majority of the population, who judges in a subjective way some personal or social features as worthy of respect. If a society judges in a negative way a certain social feature, then this will constitute a 'stigma' (Berruto, 1995). Prestige depends on:

- the speakers' positive linguistic attitude;
- the value of the language as symbol of the community;
- language as vehicle of literary tradition;
- the language spoken by the dominant social groups: the variety spoken by a dominant group influences the other speakers and the other groups.

The diastratic variation depends on the social stratification, so it basically depends on social groups. The diastratic variation considers also the economic condition of the speaker, his educational level, age and gender.

The diaphasic variation refers to the communicative situation of the speech: depending on the conversational situation, the speaker adopts a different variety and register according to his pragmatic competence. There is a continuum along the register variation: it can reach the top of the formality or it can become, through different shades, very informal and colloquial.

Ferguson (1994:20) gives a clear definition of register when he says that

"People participating in recurrent communication situation tend to develop similar vocabularies, similar features of intonation, and characteristic bits of syntax and phonology that they use in these situations."

This social behaviour is crucial as it facilitates the communication among people and it is a valid instrument to establish relationships.

A very important difference between the diastratic and diaphasic dimension is that the former is strictly linked to the speaker, depending necessarily on his age, social class, gender, and education, whereas the latter is more independent from this point of view.

The diamesic variation refers to the change of the communicative mean; it can be the difference between a spoken language and a written one, the register of an e-mail or an SMS.

The diachronic variation is the variation subject to time, and it can be analysed, for example, by comparing the phonological changes in the lexicon of elderly and younger people. As Battaglia (2010) underlines, we cannot establish a border and define with precision to what category a linguistic production belongs, where it begins and where it ends, as linguistic productions are part of a continuum without specific boundaries: the shades of registers allow the speakers to understand each others.

In sociolinguistics, the process of standardization attempts to reduce variation and diversity, two elements that assure the vitality of languages, being natural elements enabling them to change (Wardhaugh, 2006). A standard language is produced where before there were just dialects (non-standard varieties), since a standard language is the “result of a direct and deliberate intervention by society”(Haugen, 1966). In order to become the standard, a variety must go through a process of selection, which is a matter of great social and political relevance allowing the variety to gain prestige: it must be codified (written in dictionaries to be “fixed”); its use must have the possibility to be associated to the central government (parliament and law courts) and with writing (bureaucratic, educational and scientific documents of all kinds); finally it has to be accepted as the official national variety, which will serve as a unifying factor for the country, as symbol of its independence from the others.<sup>30</sup>

So, when we talk about the ‘status’ of a language we refer to what it is possible to do with it from a practical, political, legal, economic, and social point of view.

The ‘function’ is everything that can be actually done with a language within a society. Status and function are not always the same thing: they strongly depend on the prestige of the language. According to Berruto (2004), a language can have a status only if it has a good level of standardisation and if it is spoken by educated, cultured people.

Dialects are in opposition to standard varieties. They consist of differences in the phonological pronunciation, in the forms of their words and in aspects of their syntax, varying along different geographical areas.

---

<sup>30</sup> See Fasold (1984); Milroy and Milroy (1985), and Haugen (1994).

## 2.2 Sociolinguistic variation in sign languages

As we have seen in Chapter 1, Stokoe's (1960) pioneering work and the following research on sign languages of the world have given recognition and dignity to sign languages as natural linguistic systems.

For this reason, we may say that there is variation in the use of documented sign languages (Stokoe, Casterline, Croneberg, 1965) and that they reflect almost every characteristic we have seen so far regarding sociolinguistic variations.

The first studies about sociolinguistic variation in sign languages were conducted by Patrick and Metzger (1996) who examined 50 sociolinguistic studies of sign languages from 1971 to 1994. Unfortunately, those studies have involved few signers and the data were collected with a wide variety of methods, so the results could not be considered significant (Bayley, Schembri, Lucas, 2015).

From the 21<sup>st</sup> century additional studies have provided new data about sociolinguistic variation in sign language, they have particularly focused on lexical variation, rather than phonology and morpho-syntax.<sup>31</sup>

According to Lucas *et al.* (2001), regional variation in ASL is the major focus of interest among social factors. When considering Deaf communities, other aspects, which make the picture more complicated, have to be taken into account, since they are minorities embedded within larger communities employing a different linguistic modality. The factors we are referring to are: ethnicity, gender, age, factors related to Deaf communities (Schembri & Lucas, 2015), for example, as we will see, considerations about the family (deaf or hearing) in which a deaf person has grown up, the age of acquisition of a sign language<sup>32</sup>, the type of school attended. On the basis of these facts, we can understand the level of linguistic competence of a signer, how early he has been exposed to a signed language and what was the linguistic context around him.

---

<sup>31</sup> Work on sociolinguistic aspects of ASL has been mainly conducted by Lucas (2007), Lucas and Bayley (2010); work in other sign languages are by Fischer and Gong (2010) for Chinese Sign Language (CSL), Lucas and Bayley (2011) for Black ASL, Australian Sign Language (AUSLAN), New Zealand Sign Language (NZSL) and LIS, Schembri *et al.* (2010) for British Sign Language (BSL), AUSLAN and NZSL, and Schembri and Johnston (2013), Schembri *et al.* (2013) for BSL.

<sup>32</sup> See Newport and Supalla (1980), Hoffmeister (1982), Petitto (1983), Newport and Meier (1985); Meier and Newport (1990); Petitto and Marentette (1991) for studies about American Sign Language acquisition.

All these factors have to be reconsidered also when talking about regional background, which, together with the geographical origins, in a Deaf community is less relevant than where deaf people attended school, i.e. if it had an oral or signing planning (Schembri and Lucas, 2015). For example, the age factor may be analysed under other aspects, variation between older and younger signers could be influenced not only by the natural language change processes common to all languages, but also by language policies factors.

If we focus for example on the Italian situation, it is important to remember that up to 1977 deaf people attended residential schools where they were constantly in contact with other deaf peers with whom they could interact through the sign language. Residential schools for the deaf have been a crucial meeting point and a place of exchange and contact which have helped sign languages to enrich themselves yielding different variants not only all over the country, but also within the same city.

In Italy, in 1977 a new law (517/1977) integrated deaf students together with disabled individuals into mainstream schools, leading to the closing of most residential schools and therefore to important changes in the use of the sign language (Geraci *et al.*, 2011). One of the main consequences was the impoverishment of the sign language due to the migration of deaf pupils towards the public schools.

Furthermore, we have to consider that only a natural transmission between parents/children grants for a good maintenance of the language, however, given that only 5-10% of the deaf has deaf parents, only a small percentage of them receives a linguistic input in a sign language from birth in a similar way as hearing people do so from their parents. The great majority of the deaf has his first contact with a sign language only later, outside the family (Cardinaletti, Cecchetto, Donati, 2011). We may conclude that if the linguistic competence depends on early exposition to a natural language, deaf children show a great diversity in language competence, depending on the age at which they have been exposed to the sign language. For this reason, deaf individuals that can be considered native speakers of a sign language are very few, if we compare the language acquisition situation of the deaf children to that one of the hearing children. Furthermore, one factor to consider in any sociolinguistic analysis is the educational system of deaf children: since 1880 in Italy, and in other countries, the traditional oralist system prevails on the bilingual one, favouring the exclusive use of the spoken language. Consequently, deaf pupils do not have the chance to be exposed to their natural language, often receiving an unnatural linguistic

input mixing up the sign language lexicon with the structure of the spoken language (this method is called Signed Italian and it is used together with another system called ISE, Exact Signed Italian, which aims to reproduce manually all elements of Italian, including functional words absent in LIS).

As we said before, another important factor to be considered when analysing sociolinguistic variation is ethnicity or social group: African American Deaf signing is the most significant example on which sign language sociolinguistic studies have focused in this respect<sup>33</sup>. This variety seems to be influenced both by African American Vernacular English spoken by African American hearing people, and by the general distinction between white and black communities. In fact, this variety has been strongly influenced by the historical background of the American deaf education established for African-American deaf children in Southern communities during the period of black segregation between the 19<sup>th</sup> and the 20<sup>th</sup> century.

A different vocabulary between Black and White Deaf signers living in the same city, in North Carolina, was identified by Croneberg (1965).

Croneberg reports that black signers show unique lexical variants (Aramburo, 1989) for signs such as ‘flirt’, ‘boss’, ‘school’, as shown in figure (1)<sup>34</sup>, in which the picture on the left represents the white variant, whereas the picture on the right the black variant:

(1)



White variant for ‘school’

Black variant for ‘school’

---

<sup>33</sup> See Croneberg (1965); Woodward (1976), Lucas *et al.* (2001), McCaskill *et al.* (2011); Lucas *et al.* (2013)

<sup>34</sup> The picture is taken from Schembri and Jonhston (2013:17)

Recent work by McCaskill *et al.* (2011) identifies other differences in the black signing variety, in addition to lexical variations, such as a greater use of two-handed variants, the production of fewer lowered variants of signs and a great use of repetition. Furthermore, African-American Deaf signers seem to make larger use of the signing space than white signers<sup>35</sup>.

Another interesting factor is related to gender variation in sign language. The most important work on the gender-distinction in the lexicon of sign languages comes from LeMaster and Dwyer (1991); Leeson and Grehan (2004) for what concerns Irish Sign Language (IrSL) in the Republic of Ireland.<sup>36</sup> In fact, for over a century, males and females in Dublin were separated in residential deaf schools in Dublin: St. Mary's School for Deaf girls, St. Joseph's School for Deaf boys. This separation led to a systematic variation in the lexicon concerning common everyday nouns, verbs and adjectives, such as 'night', 'use', 'cruel' (LeMaster and Monaghan, 2004). In their work, LeMaster and Dwyer (1991) reported that out of 152 stimuli, 106 items were different, although 63% of these were related in some way. Some examples are the sign for 'green', which differs in handshape, location and movement (figure (2))<sup>37</sup>, or the signs for 'apple' and 'daughter', which in the two varieties are produced with the same handshape but a different location, movement and palm orientation (see figures (3) and (4) below<sup>38</sup>):

(2)



Male and female signs for 'green'

---

<sup>35</sup> See Schembri and Johnston (2013) for a deeper discussion on sign varieties used by various ethnic groups in the United Kingdom and Australia.

<sup>36</sup> See also LeMaster (1997); LeMaster and Foran (1986), Matthews (1996); Ó Baoill and Matthews (2000).

<sup>37</sup> The picture in (2) is taken from Curtin (1993: 128)

<sup>38</sup> The pictures in (3) and (4) are taken from Schembri and Johnston (2013:16)

(3)



Female variant for 'apple'



Male variant for 'apple'

(4)



Female variant for 'daughter'



Male variant for 'daughter'

Other important studies on gender distinction in sign language have been reported by Wulf (1998), Coated and Sutton-Spence (2001) for different styles of conversational interaction in BSL, and Mulrooney (2002) on variation in fingerspelling in ASL.

Studies about differences between heterosexuals and homosexuals communities have been reported by Rudner and Butowsky (1981) and by Kleinfeld and Warner (1997). The differences emerged mainly in signs connected to sexual orientation, such as 'gay' or 'lesbian', where the fingerspelled version of the two signs appeared to be more acceptable to the gay and lesbian community.

In this paragraph, we have seen how variation occurs in sign language communities for many linguistic, social and stylistic factors in a similar way as attested in spoken languages.

### 2.2.1 Diachronic phonological variation in LIS

In § 2.1 we distinguished five important parameters when analysing linguistic variation: diatopic variation, diastratic variation, diaphasic variation, diamesic variation and diachronic variation.

Let us now focus on the diachronic variation in sign language, that is the variations connected to the use of a language in different time periods: in a similar way to spoken languages, also sign language vocabulary evolves and changes over time. As Radutzky (2000) points out, the first thing that changes in a spoken language over time is its vocabulary (slang, colloquial terms change very easily, as we will see in chapter 3), then grammatical constructions evolve, word pronunciations vary and consequently also the written form is subject to change. In sign language, like phonemes in spoken languages, cheremes are susceptible to modification, and this is made evident by the alteration of the parameters of the signs over time. Nancy Frishberg (1975) was the first one who focused on diachronic variation in the ASL lexicon, trying to analyse which factors led signs to change: a general consideration was that signs tend to abandon their iconic traits, adopting a more arbitrary lexical system.

As for LIS, since 1979 several studies about phonological changes based on Frishberg's pioneering work have been conducted. Radutzky's (1989; 2009) analysis focuses only on the historical/phonological change, whereas morphological or syntactic changes are not considered. According to this study, phonological changes are due mainly to linguistic factors, which have to do with the visual modality of the sign languages. Radutzky claimed that many of the phonological changes have to do with ease of articulation, so that the signs will require less energy for the signer to produce them.

We will see some of the forces behind phonological changes: one of the main processes is 'symmetry' that is the tendency for the handsape, movement and orientation of the palm to become more symmetrical over time. Signs articulated with two hands tend to be more and more symmetrical (Radutzky, 1989). Figure (5)<sup>39</sup> below shows an example for the LIS sign 'to try', articulated with two different

---

<sup>39</sup> The explanatory pictures from (5) to (8) are taken from Radutzky (2000)

handshapes in its earlier version (the left picture), as opposed to being articulated with the same handshape in its actual version (the right picture).

(5)



LIS sign for 'to try'

Another important active process is 'centralization' or 'displacement', whereby signs that were previously articulated in the corners of the visual plane are lowered towards the centre, so that the signer's face expressions are well visible and available to convey lexical and syntactic information. On the other side, signs that once originated under the chest are lifted close to the neck, to make them more visible and easy to articulate.

Picture (6) is an example of centralization of the sign SHOES:

(6)



LIS sign for 'shoes'

'Fluidity' is another crucial process connected to phonological variation: signs tend to become less complex in their articulation, in particular those composed of more than one sign. What was once a stop to grasp a body part in a sign may become just a brush or a tap (Radutzky, 1989). A phenomenon concerning the sign fluidity is the so-called assimilation: in sign language, compounds (signs that are composed by two signs, originally with two distinct meanings and then combined to form a new sign with a different meaning) are those more susceptible to assimilation processes. This phenomenon mainly affects the handshape and movement of the sign, making the

traits of the two different signs closer and less distinguishable one from the other. Furthermore, signs tend to lose their original iconicity to become more opaque, easier to be articulated and to be better perceived by the interlocutor.

Assimilation can be of three types: anticipatory (or regressive), perseverative (or progressive) and bidirectional. Within anticipatory assimilation in compounds, some traits of the handshape of the second component are assimilated into the first part of the sign; in perseverative assimilation, some traits of the first sign persist on the articulation of the second sign; in bidirectional assimilation a trait has some characteristics both of the preceding sign and of the following one.

In (7) we can see an example of anticipatory assimilation in the LIS sign for ‘to make fun of somebody’: what once was composed by two distinct signs (a ‘G’ handshape touching the nose followed by a ‘T’ handshape performing a circling movement in the neutral space) becomes a sign in which in its first part the hand already shows the ‘T’ handshape of the sign following it, and the second part of the compound starts with a cycling movement produced in the neutral space.

An example of perseverative assimilation in LIS can be the sign for ‘deaf’: in its previous version, it was composed by two different signs, the first made with a ‘G’ handshape touching the ear, the second with a ‘B’ handshape touching the mouth. In its actual version, the second part of the sign maintains the ‘G’ handshape of the first sign (figure (8)).

(7)



LIS sign for ‘to make fun of somebody’

(8) <sup>98.3</sup> G) \* G) \*



LIS sign for 'deaf'

Another process connected to phonological change can be a tendency towards the use of 'initialization' with two-handed signs: the dominant hand tends to assume the handshape of the manual alphabet letter representing the first letter of the corresponding spoken word. The result of this phonological change is that the initialized sign gains a finer handshape. In (9)<sup>40</sup> we can see an example of initialization of the LIS sign LAW: in its previous version (the picture on the left), the sign was made by the dominant hand performing a 'B' handshape, tapping on the palm of the non dominant hand, assuming the same 'B' handshape. In its actual version (the picture on the right), the dominant hand has shifted its handshape towards an 'L' handshape, indicating the first letter of the Italian word '*legge*'.

(9)



Previous and actual LIS signs for 'law'

Many other phonological changes can occur with respect to movement, handshape (for example handshapes tend to become more and more precise over time with a

<sup>40</sup> The pictures (9) is taken from Radutzky (2009:31)

phenomenon called ‘refinement’ (see Radutzky, 2009)), location and orientation of signs, but a general conclusion reported by both Frishberg and Radutzky is that phonological change processes mainly occur to ease and simplify the articulation and the perception of signs.

### 2.2.2 The LIS Corpus: lexical and phonological variation in LIS

As we have seen in the first chapter, LIS lacks a formal recognition from the national authorities and this is one of the main reasons why LIS reflects a high degree of variation all over the country.

In this section, we will focus on some of the data coming from the Corpus LIS (Geraci *et al.*, 2011), an extensive collection of data in Italian Sign Language on which some statistical analysis have been conducted to explore different aspects of sociolinguistic variation in LIS (Cecchetto, Giudice and Mereghetti, 2011).

The collection of the LIS Corpus as well as its analysis was inspired by the previous collection of an ASL Corpus<sup>41</sup>. Data have been collected from ten Italian cities<sup>42</sup> with 165 signers within the PRIN 2007 research project “Dimensions of Variation in Italian Sign Language”, approved in September 2008 starting in February 2009. Three universities (Venice-Ca’ Foscari, Milan-Bicocca and Rome-La Sapienza) have contributed to the project receiving a grant from the Italian Ministry of University.

Data have been elicited during four different moments: a free conversation task, an individual narration session, a question-elicitation session and an elicitation of single signs using a picture-naming task.

Let us focus on the last task and in particular on those signs appeared to be subject to diachronical variation and in which a strong lexical variation is attested: GOOD, COFFEE, UNDERSTAND, HOUSE, BIRTHDAY, WOMAN, CHEESE, INTELLIGENT, TO-SEE. The relevant data were collected from 128 signers from eight (out of ten) cities: Bologna, Brescia, Turin (for the North) Florence, Rome (for the central Italy), Bari, Ragusa and Salerno (for the South).

---

<sup>41</sup> See Lucas, Bayley and Valli (2001).

<sup>42</sup> The cities have been selected in a way that almost every part of Italy would have been represented: the North, Centre, South and the Isles.

The signs object of the picture naming task were chosen in order to investigate the phonological changes active in LIS due to some observed processes of articulatory simplification, such as:

- loss of contact: signs articulated with contact on some body part may also be articulated without contact;
- movement towards the neutral space: signs articulated on the body may be located in the neutral space;
- handshape assimilation, operating in two distinct domains: the nondominant hand in two-handed signs assimilating the handshape of the dominant hand; the handshape of the first element partially or totally assimilated to the handshape of the second element in compounds (Geraci *et al.*, 2011).

In order to study lexical variation, data have been divided into two different groups: a first group included national variants (signs produced almost in every city) and a second group included local variants (signs emerged only in a few cities).

The results show a clear difference: of the 1.175 signs analysed, 1.003 (85,4%) are shared along the whole national territory, 172 (14,6%) are local variants. These results have been intersected with the sociological information of the informants and it has emerged that two factors mainly influence the distribution of the variants: the age of the signers and the geographical provenience. In fact it seems that older people prefer local variants, whereas younger signers are more likely to use national variants. The geographical provenience factor shows how signers from central Italy prefer national variants (90,76%), whereas northern and southern signers produce more local variants.

According to Geraci *et al.* (2011), an explanation to this situation is that what is going on is a process of standardization in the LIS lexicon, which is more and more shared throughout the country, and this is particularly evident in the central cities of Italy. This diatopic phenomenon coincides with a diachronical one: the variety used in Rome seems to be the prestige variant considered more standard among all the others. For what concerns phonological variation, signs have been analysed when produced in their primitive form (i.e. signs that have contact and have not undergone a process of change) and signs produced in all potential derived forms through phonological changes.

The following pictures in (10) and (11)<sup>43</sup> show an example of a primitive form and a derived form for the LIS sign for ‘good’, which, in this case, shows a shift to [-contact]:



Primitive form of GOOD: [+contact]



Derived form of GOOD: [-contact]

The statistical analysis shows that the 38,4% of the items emerge in their primitive form, 61,6% in the derived form and this is explained by looking at two significant social factors, that are in this case age and gender. Middle-age signers and young signers prefer to use signs in their derived forms, whereas older signers tend to use signs in their original form. The gender factor shows how female signers have a higher percentage of the derived forms (67,98%) than male signers (57,28%). In conclusion, it is evident that younger signers prefer innovative forms; on the contrary older signers are more conservative. Moreover, for what concerns gender, females seem to be more innovative than males.

The results coming from the phonological variation analysis are similar to the lexical variation analysis for what concerns the age factor: older signers generally tend to use more conservative forms, whereas younger signers seem to be have an active role as innovators both at the lexical and the phonological level. Interesting observations

---

<sup>43</sup> The pictures in (10) and (11) are taken from the LIS corpus project (Geraci *at al.*, 2011:545-546)

come from the gender factor, according to which female signers tend to use more innovative forms than male signers: this trend seems to be in contrast with previous studies on sociolinguistics in spoken languages (according to which women are said to be more conservative<sup>44</sup>) (Eckert, 1989; Labov, 1990; Trudgill, 1974; Wolfram, 1969) and in ASL (Lucas, Bayley, Valli, 2001).

In Geraci *et al.*, this phenomenon is explained by considering the lacking of a standard variety of the LIS lexicon, which leads to perceive derived forms as more prestigious than primitive ones.

These data underline a positive process of standardisation, made evident by the establishment of national variants over local ones.

### 3. Summary

This chapter offered the reader a general overview of the basic concepts of sociolinguistics studied and presented a deeper analysis of sociolinguistics studies in sign language, accounting for the high degree of variation existing in particular in LIS.

As we have seen in §2.1, a variety that becomes standard automatically gains prestige and a status. It is very important to consider these factors in relation to the process of the standardisation of LIS, since not only it is not yet officially recognized as a natural language, but its status is complicated by the fact that the deaf population is often regarded as a community affected by a situation of handicap. Consequently, this influence the signers' perception of their language, which results stigmatised if compared to the superior status of the Italian spoken language. A negative attitude towards the sign language is also due to its absence in educational settings or in public events, and it is still very rare to see LIS interpreters in the public television.

The welcome but still developing process of standardisation that seems to be going on in LIS is crucial, at least for what concerns the lexicon, as it can help LIS to reach an official recognition and a status, making the Deaf community more conscious of their importance as a linguistic group.

---

<sup>44</sup> Nevertheless, it is common knowledge in literature that, although women are more conservative than men in general, being more likely to use prestige forms of a language than men, they are more likely to lead language change using the innovative forms of the standard.

This chapter aimed also at providing an overview on the sociolinguistic situation of the Deaf community, as this will help us to introduce the next chapter, devoted to the main topic of my work, that is how slang develops within the Deaf community, in particular among Deaf young signers: how we will see, they are important language innovators.

The third chapter will therefore focus first on the characteristics of the slang in general in spoken languages, and then it will try to outline what can be the features characterizing the slang in a sign language, in particular in LIS. The discussion I will carry out in the next chapter is supported by the data collected during some interviews providing evidence for the analysis.

## CHAPTER 3

### A LINGUISTIC CHALLENGE: AN ANALYSIS OF SLANG IN LIS

#### 1. Introduction

Language [...] is something arising out of the work, needs, ties, joys, affections, tastes, of long generations of humanity, and has its bases broad and low, close to the ground. Its final decisions are made by the masses, people nearest the concrete, having most to do with actual land and sea. It permeates all, the Past as well the present, and is the grandest triumph of the human intellect.

- Walt Whitman

This chapter is an attempt to describe how slang develops among young Deaf signers, giving first a definition of what slang is in spoken languages, outlining its complex nature for its ephemeral and changing nature. In §2 I sum up some general definitions of the term ‘slang’, often associated to bad language and to subgroups, used to hide information from authorities, to reinforce social identity and cohesion inside a group. Some strategies adopted to create new slang terms are analysed, and a description of the Italian situation is provided. §3 discusses my research, that is how slang develops among young Deaf signers: I collected data from some interviews administered to some students of the College of the Deaf “Magarotto” in Padua, and I tried to sketch some strategies employed to create new terms, considering also the sociolinguistic background of the Deaf community.

#### 2. Defining slang: a challenging task

Slang is a complex phenomenon for its relationship to socio-linguistic variables and pragmatic functions. There is little agreement on the definition of the term ‘slang’ and the challenge in defining it depends basically on two reasons: the first one is that slang is ephemeral, it changes from generation to generation, from person to person (Andersson and Trudgill (1990)). Sornig (1981:20) claims that “slang is a language in the making, it is an experimental language”, underlying its oral nature: even if some slang words may become part of the standard language, they generally vanish as time goes by.

The second reason is that, as Munro (1997: 27) said:

“Some slang expressions are no longer recognized by speakers just a few years later, other slang words come to be accepted as standard language, while other persist as slang for many years.”

So we may not recognize a word as slang, since it may have become part of our lexicon, in a way that it will be identified as part of the informal language (Mattiello, 2005).

Trumble and Stevenson (2002) describe slang as “[...] the special vocabulary and usage of a particular period, profession, social group” and as “[...] a language that is regarded as very informal or much below standard educated level.” These definitions of slang show a tendency towards a sociological view of the phenomenon.

In fact, slang is a term commonly used to refer to lexical innovation by sub-groups, delegitimized groups of people, who want to reinforce their identity and cohesion by using terms and words inaccessible to other people not belonging to their group.

Thus, slang is something deliberately far from the standard formal language, which is generally associated with education, institutional affiliation. Slang is therefore commonly “[...] not accepted as good, formal usage by the majority” (Flexner 1960: 6). The paradox of slang is that, although people look down on it, they can hardly avoid using it (Epoge, 2013).

For its complex nature, slang is often referred to as informal or bad language, and it is associated to language varieties such as dialects, jargons and accents.

Slang can be considered a diastratic variety, but it must be pointed out that it is not jargon (that is the specialized vocabulary of a set of people sharing trade or profession (OED; Sager, 1992; Nash, 1993; Burke, 1995), which, on the contrary of slang, is very technical and has some sort of prestige but lacks that spontaneity and familiarity characterizing slang.

Slang cannot be even reduced to cant, that is that vocabulary peculiar to the members of an underworld group, since it is not spoken only by criminals: it is true that it may be used to hide information from authorities, but it is very common also among subgroups (mainly adolescents and teenagers) who want to keep their conversations secret to adults and to be independent from them.

Slang is not even accent (it is not a matter of word pronunciation regarding tone, quality, pitch, stress, and so on), or dialect, because although it varies from place to place, it cannot be related to a particular social class or a particular region.

## 2.1 Word formation in slang

One of the main characteristics of slang is its “freshness” (Mattiello, 2005), and this is due to the fact that the words used in slang are always new, or they are current words but used in a different way. In fact, every day new terms are coined, denoting the same thing as other terms in standard language, helping to enriching the language with new meanings.

Mencken (1976: 702) defines this process as “a kind of linguistic exuberance”, “an excess of word-making energy”, something always changing, evolving in a creative way.

So we may claim that slang is fresh for three main reasons:

- Slang is something trendy, depending on fashion, those who use it feel part of a group and can express their identity;
- Slang is used especially among adolescents, young people, college students; thanks to slang they reinforce their friendship and their belonging to their group;
- Slang is crucial to vitalize the vocabulary of a standard language that becomes richer thanks to innovation, which underlines the creative potential of a language.

It is for this reason that slang is also innovative for its possibility to enlarge and enrich the vocabulary of a language with its neologism, its wordplays, its “phonological identity and expressiveness” (Mattiello, 2005). Sornig (1981) considers slang, and lexicon more in general, as a field where the speaker can feel free: in fact, if in a language grammar is very strict and close, the lexicon is open to change and innovation.

As far as semantics is concerned, slang establishes new meaning, mainly deriving from figurative language: it is basically made of rhetorical figures, like metaphors, euphemisms, irony, hyperboles, similes. In particular, euphemistic and metaphoric extensions are responsible for many new meanings: in English, the term ‘bean’ may

stand for 'ecstasy pill'; irony is very productive and it allows the speaker to refer to the opposite meaning of what he is saying; hyperboles have the role to exaggerate the quality or quantity of something or somebody.

According to Mattiello (2005), the most prolific semantic areas concern drugs, sexual habits and lifestyles, alcoholism and criminality. Due to the figurative language characterizing slang, the meaning of the words used within a group is often hard to guess by the outsiders; sometimes periphrases or other expressions are needed to explain them. Sornig (1981:1) claims that slang share some characteristics with poetic language and secret language, because "it is extremely difficult if not altogether impossible to explain their real and complete meaning to an outsider." For this reason Mattiello (2005) uses terms like 'obscurity' and 'indeterminacy' to refer to slang, since it has no immediate, understandable meaning, and there is not a unique transparent referent easy to identify. So slang is basically made of association of meanings, made hard to understand thanks to a series of complex processes of new word formation. Generally speaking, it is very hard to go back to the origin of a word, since the innovation of the language belongs to a particular moment, which normally is not so easy to trace. If the origin of a word is traceable, it means that that word has become part of the common language, on the stylistic level of the slang usage.

The reason of this absence of transparency, as we have already seen, is connected to the purpose of not being understood, to be cryptic, to hide information, to condemn or sympathise someone. Nevertheless, slang has not only an exotic purposes: it often aims at creating fun in humorous situations, and this will help it to be "suitable for the expression of the feelings of the speakers" (Epoge, 2013: 28).

Slang is very powerful within a group as it can reinforce sympathies, it can offend or it can support a more informal communication to decrease the seriousness of a speech.

Another important characteristic of slang is that it can also include loan words deriving from other languages: this can facilitate the aim of keeping secrets. Anyway, the loaned word will not maintain its original meaning, but it will undergo a process of familiarization, popularization, and conventionalization (Sornig, 1981).

In slang we find another process of borrowing: words retained obsolete from the common standard language can be repurposed and this leads to an effect of strangeness to those who don't use them.

## 2.2 Italian young people: internationalisms and dialects

Sociologists usually consider 'young people' as belonging to the category of adolescents between 13 and 19 years old, whereas those between 20-24 years old are considered 'post-adolescents': they tend to use less slang, since they are oriented towards a neo-standardisation of their language (Radtke, 1993).

Banfi and Sobrero (1992) point out that young people are those who most use slang and, in Italian, young people have the tendency to use foreign terms to create a new distinguished vocabulary. This is because Italy seems to be too much confined, and the Anglo-American culture is penetrating more and more into the Italian one, thanks to music and films that influence the environment of Italian young people. By using foreign terms, the small-town mentality is put aside, as well as the mediocrity and the boredom of the standard language.

The rhetorical models seem to be the same all over the young population, with very extemporary rules.

One of the many reasons why it is difficult to study slang is that in the past linguists and Scholars were not interested enough in the evolution of the language of young people, since until the 18<sup>th</sup> century it was not something enough interesting to worry about.

Only in the 19<sup>th</sup> century, young people have acquired more autonomy and their own role and identity have grown up as something to be proud of, leading them to a narcissist tendency to distinguish themselves from others. In fact, although slang is commonly considered in terms of individual expressions, it is also to be considered as part of a style that often leads other age groups to linguistic change (Eckert, 2003). We may say that the language of the young people depends on social factors, so the linguistic attitude derives from the social one. In this regard, it is interesting Eckert's (2003:113) considerations about the relationship between adolescents and language, in which the second one would play "a key role in the creation and maintenance of social groups in general, hence of adolescent peer groups."

One interesting characteristic of Italian young people is that they have two tendencies: the first is the one we have already mentioned, that is, the tendency to adopt English and foreign terms; the second is the tendency to maintain words from their own dialect or provincial register. So the youths' slang swings between two opposites: the international language and the dialectal one. Since dialects are losing power, other

sub-standard dialect varieties are spreading. It is interesting to notice how slang can be different from the North to the South of Italy: slang is much more prevailing in the North rather than the South, in particular in big cities, where slang has replaced the role of dialects, nowadays spoken basically by the elderly people, in the small towns and in the countryside.

For what concerns the lexicon, as we have already seen, slang is characterized by the melting of:

- Varieties of the standard current language: we find very informal expressions, used in a funny and humoristic way; regionalism; sector-based terms (school, professions with specific cultural backgrounds and specific language).
- Dialects: when young people use dialectal expressions or terms, their speech becomes immediately playful and expressive.
- Jargon;
- Language of the mass-medias: humoristic TV programmes and advertising play an important role, they propose a lot of ephemeral but redundant expressions that can easily become part of the language of the young, even if they last a very short time. Also deejays are very helpful in this sense, because they use a very youthful language with a lot of very productive rhetorical instruments.

According to Sobrero (1992) the main fields and topics around which Italian slang develops are: school, music, sexual sphere, drugs, political movements, sport, peer group, insults or appreciations, and there is a clear taboo that characterizes the phenomenon.

The principle aim of slang creation is the playful aspect of the process, whereas, from a social point of view, there is the need to contrast everyone outside the group: it is within the group that everyone can express his identity.

### 3. Slang terms in Sign Languages

As far as we know, no linguistic studies on slang expressions have been carried out in sign languages, except for an interesting study by Mirus, Fisher, and Napoli (2012) which analyses taboo terms in ASL. We cannot consider taboo terms equal to slang expressions, even if we can claim that they share a lot of characteristics: they are both

potentially subject to evanescence, they both undergo word-formation processes, and, more generally, they are used in the same social conditions, with the aim of creating a sense of cohesion and familiarity with those who use the same slang, in order not to be understood by those who don't use those terms (Andersson and Trudgill, 1990; Labov, 1992).

Lemaster and Monaghan (2004: 149) report an example of some years back when a slang expression in ASL 'I-HAVE-REASON'

“[...]was used by younger women to indicate they had their period. It was supposed to be a safe way to talk about their period in front of adults (often in front of teachers who were not supposed to know signs because of their age group)”.

One of the main characteristics shared by taboo terms and slang is humour, the key factor that will establish whether or not a slang term is evanescent or will remain and consolidate in the language for years (Chesley and Baayen, 2010; Labov, 1992). As we will see throughout the next paragraphs, humour in Deaf communities is an important factor as it supports the in-group of community members (Martineau, 1972): as Mirus *et al.* (2012: 1011) claim, “the use of humour in creating a close linguistic community and in establishing one's membership in such a community is especially strong among Deaf communities”.

In the next section, I will examine in depth the heart of my research, referring to Mirus *et al.*'s (2012) study on taboo terms in ASL, but also to previous studies (Boyes-Braem, 1996; Klima & Bellugi, 1979; Lakoff & Johnson, 1980; Russo 2004; Wilcox et al., 2003) who helped me in the analysis of the slang terms I selected from the data I collected. As already mentioned in the previous paragraphs, slang is very productive among adolescents.

For this reason, I decided to administer my interviews to Deaf adolescents attending the College for the Deaf “A. Magarotto” of Padua, expecting to find slang expressions especially among young people who see each other everyday, both during lectures and in the boarding school, where they live.

### 3.1 My research on slang in LIS

#### 3.1.1 Gathering the data and research technology

In a linguistic research, the collection of data is a crucial step as it greatly influences the results of the investigation. Actual tools used to collect data in linguistic research can include interviews, structured data elicitations, questionnaires or free conversational sessions. The data from this study is based on my observations through recordings from spontaneous production: once I had explained what was the aim of my research, informants were invited to think of all slang expressions they could think of in a random way; I only intervened to give them inputs that could help them to remember some signs related to some specific areas (i.e. drugs, sexual acts, physical descriptions, and so on), or to ask for clarifications. As Schembri and Lucas (2015) point out, data collection presents a methodological issue: in sociolinguistic research, gathering data that are as natural as possible is fundamental, as it will help to base conclusions on conversations that could be found in everyday situations. Interviews in sign language are mainly recorded with a videocamera, because this facilitates the analysis; this fact makes it less likely a conversation to be close to a natural language. If we consider Labov's (1972) theory about the phenomenon of the "Observer's Paradox", we can understand how recording can be intrusive during an interview, and this can be an even bigger issue if we think that video-recording has a magnified effect than audio recording: a signer can be more easily inhibited by a camera more than a speaker would be by an audio-recorder (Schembri *et al.*, 2013). As Schembri and Lucas (2015: 77) claim, "on video, complete anonymity is impossible", and since Deaf community is relatively small and it is easy for signers to know each other, this could constitute a problem, as they could be concerned that what they sign during the interview will be seen by other Deaf people, fearing a negative judgment. In my case, I could feel this "fear", as the young informants were signing something very intimate connected to terms they used in their everyday life, referring to something secret, forbidden, unknown by other people. Before starting the interviews I was very concerned that my explanations could not be sufficiently clear and exhaustive about what I needed to collect. Anyway, the choice of interviewing them in a spontaneous production had many advantages, as the informants understood very well what the goal of my research was, and they proceeded very soon with producing a lot of interesting expressions. Data were collected using a digital video-

camera and then transferred into my laptop.

### 3.1.2 The informants

The data discussed in this work come from eight informants, all native signers born from deaf parents. Six of them are students attending the College for the Deaf A. Magarotto of Padua, coming from all parts of Italy. Their age ranges from 14 to 19 years old and all but one attended middle school with other deaf schoolmates. They were interviewed in couples, to ease and facilitate a more spontaneous speech and to encourage a possible debate on the expressions they used. The first couple was composed by a boy and a girl (respectively 18 and 19 years old); the second one were two boys (18 and 17); the third couple was composed by two young girls (14 and 16). In my data collection I included also two informants that are older than the students: they are one girl and one boy from Rome, aged respectively 26 and 27.

I decided to take into consideration also their productions, even if they don't live in Padua and they are out of the scholastic context, in order to see if they still use slang expressions despite their almost adult condition, or if they can remember some expressions they used during their college experience, that could be comparable to the productions of the students of Magarotto's College.

### 3.2 Introducing the data

As we saw in §2.1 and §2.2 the most prolific semantic areas concerning slang terms are mainly: drugs, sexual habits, offences about people and their physical aspect, feeling expressions. Thus, I decided to categorize slang signs first according to this criterion, by inserting and classifying them in the already cited semantic areas.

For what concerns drugs, I found that most of the slang terms are employed to refer to marijuana and cocaine; for sexual habits, slang terms refer to sexual acts but they also allude to states of sexual excitement. A lot of signs are used to make fun of somebody, mainly for what concerns physical aspect. As we will see throughout the next paragraphs, the prevalent characteristic of slang terms is a tendency to play with signs, in which meaning and form are compressed in few signs, with the specific aim of not to be understood but also of stimulating a sense of wit.

This tendency to play with signs shows how signers are aware of the availability of their linguistic resources, and this allows them to break the rules to create or modify signs (Klima & Bellugi (1979)). As Battison (1978) and Wardhaugh (1992) claim about taboo terms in ASL, young signers, in particular adolescents, make use of new terms to explore the limits of the grammar of their language.

In a second time, I classified slang terms according to the strategy employed to create them. I identified seven categories including metaphors, metonymies, synecdoches, neologisms, play on words/sign modifications, hyperboles, iconicity/ use of classifiers.

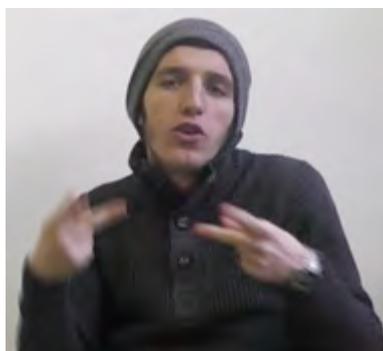
### 3.2.1 Results and discussion

#### 3.2.1.1 Metaphors

The first category I have identified is the one related to metaphors, a rhetorical figure in which a word or phrase denoting an object or an idea is used to refer to another thing in order to suggest an analogy between them.

For their property of referring to something else, metaphors are very productive in creating new terms, obscure to those who do not know them. Hence, I found a lot of slang terms produced by adopting this strategy. I have selected some of them and I will try to offer a description. Let us begin with the sign glossed as SALAD (picture 1), meaning marijuana. The relation bounding salad and marijuana is clearly the green colour and the fact that marijuana looks like grass.

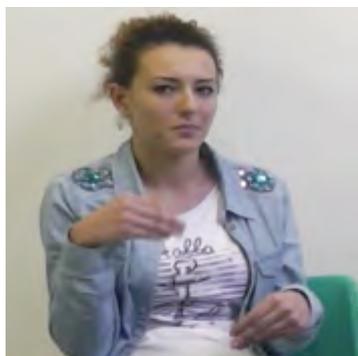
(1)



SALAD

A second type of metaphor is the sign used by adolescents to refer to menstruations: the expression they use is 'IT RAINS', and this is shared both by girls and boys (picture 2).

(2)



IT- RAINS

Another sign to refer to menstruation is KETCHUP (picture (3)), the red condiment which is obviously connected with the colour of the monthly women's flow. A similar strategy is used with the sign MAYONNAISE, standing for sperm (picture (4)). A sign referring to ejaculation is glossed as AIRPLANE (picture (5)), and it is accompanied by CLOUDS-PINK (picture (6)) if the woman has sex during her period.

(3)



KETCHUP

(4)



MAYONNAISE

(5)



AIRPLANE

(6)



AIRPLANE



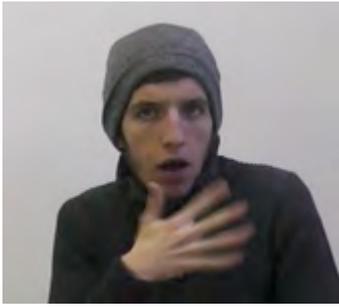
CLOUDS



PINK

The two following signs, WATER (picture (7)) and LIMITED (picture (8)) are used to refer to someone ignorant. In the first case, the sign WATER is related to someone who is so stupid that could have water in his brain, while the sign LIMITED, which in standard language is made in front of the forehead to indicate someone very close-minded, is produced in a lower position, in front of the chest, in order to hide it from the person involved.

(7)



WATER

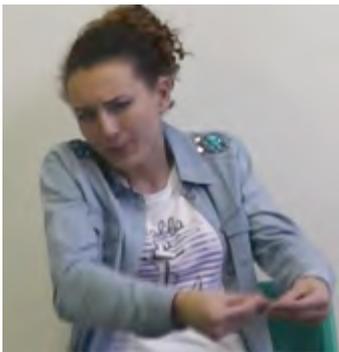
(8)



LIMITED

When someone dislikes a person and he feels the need to escape from him, he will sign DUST (picture (9)): the metaphorical image is related to the dust left behind by someone running very fast.

(9)



DUST

Vice versa, if someone judges a person responsible and conscientious, he will refer to him as a DEFENDER (picture (10)). Also in this case the analogy is easily understandable, since during a football match a defender has a big responsibility for what concerns the defence of his team's goal post.

(10)



DEFENDER

Again, connected to the football domain, some guys use the sign GOALKEEPER (11) in the following situation: if a person has to do something illicit and secret and does not want to be discovered, he will ask a friend to cover him up using this sign. Afterwards, the friend will sign PARRIED (13) if nobody noticed the mischief, or he will sign GOAL (12) if he did not succeed in his task.

(11)



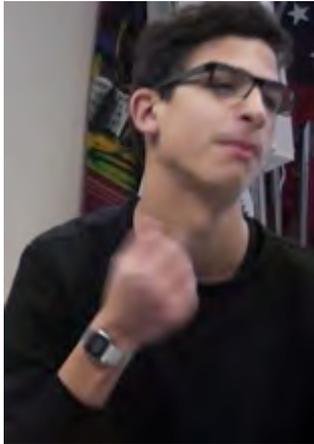
GOALKEEPER

(12)



GOAL

(13)



PARRIED

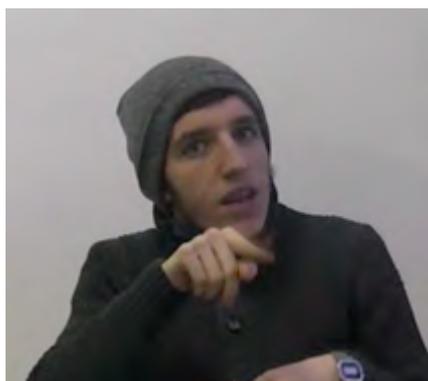
### 3.2.1.2 Metonymies

The second category includes terms which can be identified with metonymy, a rhetorical figure that replaces the name of a thing with the name of something else with which it is closely associated according to different relations, such as cause standing for the effect (for example cold standing for winter) or vice versa (sweat for hard work), the material instead of the thing made of it (wood standing for boat), the container is mentioned instead of the content (a glass standing for water), the concrete for the abstract and, vice versa, the author for the thing being made (for example: *he had several Picassos*, meaning paintings of Picasso), the instrument in place of the author (for example: *his pen was sharp*, meaning the author).

As Wilcox *et al.* (2004) point out, in sign languages metonyms are iconically depicted, and this is different from spoken languages, where metonymy relies on relations within the semantic domain only. According to the authors, this is very predictable if we think of the richer iconic potential of the hands moving in space, as opposed to spoken languages only relying on the acoustic channel.

For this category, I selected three slang terms, in which the relation between form and meaning is the effect standing for the cause: the first one is glossed as 1000 STARS (14). This sign refers to the effect of the cannabis, which causes a sense of visual hallucination, comparable to the experience of seeing a thousand stars.

(14)



ONE THOUSAND



STARS

A second type of metonymy is glossed as TEMPERATURE (15), used when someone is in a state of sexual excitement.

(15)



TEMPERATURE

A third sign classified as metonymy is SLEEP, used when someone is very bored during an event, like a party for example, but he does not want to be rude by saying that he's tired. So he will sign SLEEP (picture (16)), meaning a strong desire to close his eyes, as if they had shades to be pulled down.

(16)



SLEEP

### 3.2.1.3 Synecdoches

A third category includes signs which I have identified as synecdoches. It is very easy to confuse this rhetorical figure with metonymy, since they both have relations with other entities. The main difference is that in a metonymy, the word used to describe a thing is closely linked to that particular thing, but it is not a part of it; a synecdoche refers to a thing by the name of one of its parts. If we refer to a car with the expression “wheels”, that is a synecdoche.

In this category I will present two slang terms, both referring to the colours of the objects they refer to, and I have categorized them as synecdoches because I have considered them as intrinsic factors of the entities they refer to.

A first sign, GREEN (picture (17)), means marijuana, which is clearly green. An interesting evolution of this sign is the following: the signer may just point at a green object, and this is sufficient to make the interlocutor understand that he is referring to marijuana. The sign WHITE (18), on the other side, means cocaine.

(17)



GREEN (marijuana)

(18)



WHITE (cocaine)

### 3.2.1.4 Hyperboles

In this section, I will describe another type of rhetorical figure, hyperbole, a rhetorical figure used with the intent of exaggeration or emphasis. An example of hyperbole can be the expression “*I’ve told you a million times*”, meaning that something has been repeated a lot of time, and the number *a million* emphasizes it.

I identified three slang terms, which I classified as hyperboles.

The first one is the expression PLUTO (picture (19)), produced with a P of the manual alphabet, standing for the initialization of the English word. It is used when somebody keeps on misunderstanding a concept and it is very hard to communicate with him: the conversation is so much hard to conduct that it seems it is deviated to Pluto instead of being carried out on the Earth.

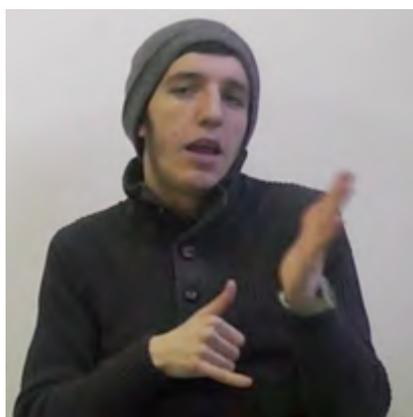
(19)



PLUTO

The second slang term belonging to this category is the one I glossed ESSAY (picture (20)). It is used when someone talks too much and the interlocutor is bored by his speech, he will sign ESSAY, produced with the dominant hand performing a Y handshape, moving downwards, parallel to the non dominant hand, performing a B handshape with the palm oriented towards the dominant hand, meaning that he talks too much as if he was writing an essay.

(20)



ESSAY

Another hyperbole is glossed FEVER 39 (picture (21)), used to refer to someone who is very gossipy, at the point that he may cause a temperature to the hearer. The degree can range from 37 to 40, depending on how much gossipy the person is.

(21)



FEVER



THIRTY-NINE

### 3.2.1.5 Neologisms

The next category includes signs that I have identified as neologisms, namely newly created words or expressions or new meaning of existing words.

The first sign is glossed as NO-SEX (22), and it is used with irony and in a playful way among friends to mean that someone is not been having sexual relations in a long time.

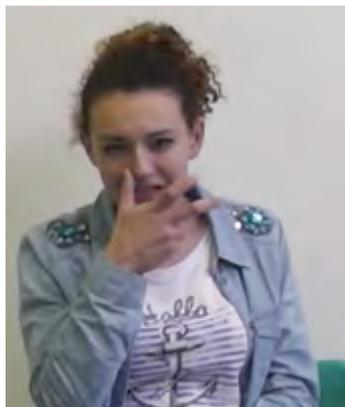
(22)



NO-SEX

The picture (23) glossed as BAD IMPRESSION-DISAPPOINTED shows another neologism which has two different shades of meaning, both used as exclamations: the first one is used when a person made a bad impression for some reasons; the second one expresses a particular feeling, when someone feels sorry or angry about a situation. The context situation my informants reported for its use involves somebody taking something from a set of objects, for example on a table, and someone else interferes by anticipating him, thus leaving him disappointed.

(23)

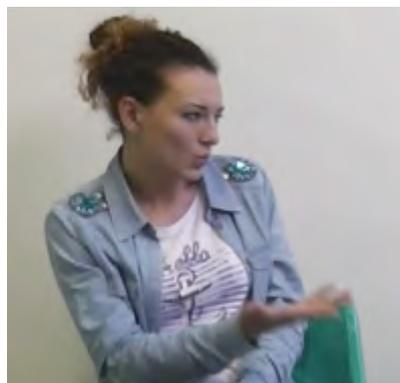
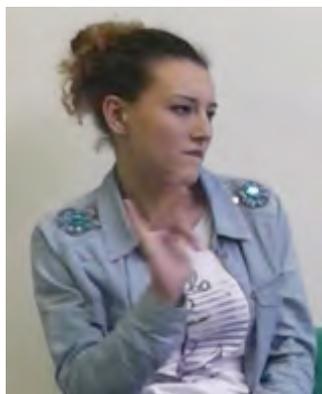


BAD IMPRESSION / DISAPPOINTED

Also, the term in (24) has two shades of meaning: the first one means literally “*I don’t care*”. One of my informants provided the following example to explain this sign: he is at a party and there is a drink on the table; he knows that it is someone else’s drink but he takes it anyway, carelessly. A second meaning is employed with a specific

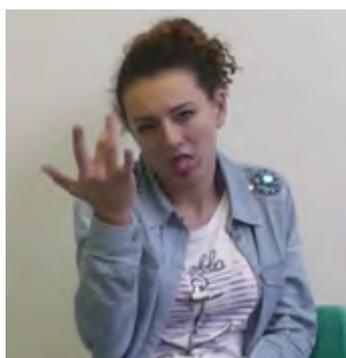
Special Oral Component (COS), glossed as ‘VU’, with the aim to insult someone considered stupid and clumsy. A synonym of this sign can also be the term showed in (25) that I glossed ‘STUPID’, accompanied by some non manual components: body leaning forward, semi-closed eyes and tongue pulled out.

(24)



NOT-CARE

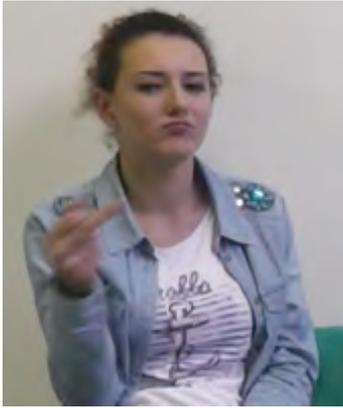
(25)



STUPID

Another term meaning ‘*I don’t care*’ is showed in picture (26), but it is strictly connected to a specific context: it is used as an exclamation, when a person does not want to pay something on purpose. For this reason, I glossed this sign ‘NOT-PAY’.

(26)



NOT-PAY

The picture in (27) is a neologism meaning GAY, employed both for men and women, with no purpose of judging or to offend, but only to refer to a person who is physically attracted to people of the same gender, by avoiding being tactless.

(27)



GAY

### 3.2.1.6 Sign play/ sign modifications

In this category I grouped those signs that already exist in LIS, but that are modified or used in different ways to create an effect of witness and humour or to mask some secret meanings.

A first term is strictly related to the city of Amsterdam: it is well known that this city is often associated to the modern-day shorthand for red light district x-rated entertainment. Actually, the 'XXX' symbol is three vertical St. Andrew's Crosses, a fisherman of the 1st Century AD who was said to have been crucified on an X-shaped cross. The Amsterdam XXX symbol was established as the symbol for the city and it

also flew as a flag on all ships registered in Amsterdam. In general, people, and in particular tourists, assume that the symbol is related to the Red Light District.

In LIS, the sign for Amsterdam is exactly produced with the index fingers crossing to form three X one next to another. One of the guys I interviewed told me that the three X stand respectively for marijuana, hallucinogenic mushrooms and sex. The slang term I am going to describe is an evolution of this sign: if someone has gone to Amsterdam, and he has experienced all but one of the three 'X', for example he did not experience sex, he will sign only two Xs, and instead of signing the last one, he will produce the sign of a flashing hand to indicate that the missing X will be the next experience to have (picture (28))

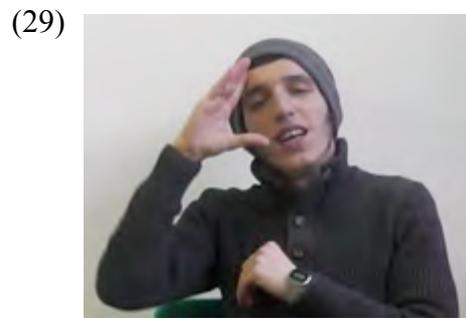
(28)



AMSTERDAM

A second play with signs is the evolution of the LIS sign for '*ignorant*' (picture 29). The evolution follows the following sequence: the standard sign IGNORANT is repeated a second time with an inversion of the palm orientation (picture (30)) to indicate that he's even more ignorant; then it turns into a I handshape (picture (31)) to mean that he is such an ignorant that his brain is extremely tiny; after that, it turns into a G handshape kicking out the little poor man (picture (32)), that eventually falls

forward, face up (picture (33)). In (32) the choice of the “V” handshape is used to refer and describe the position of the the man’s legs, falling on his back.



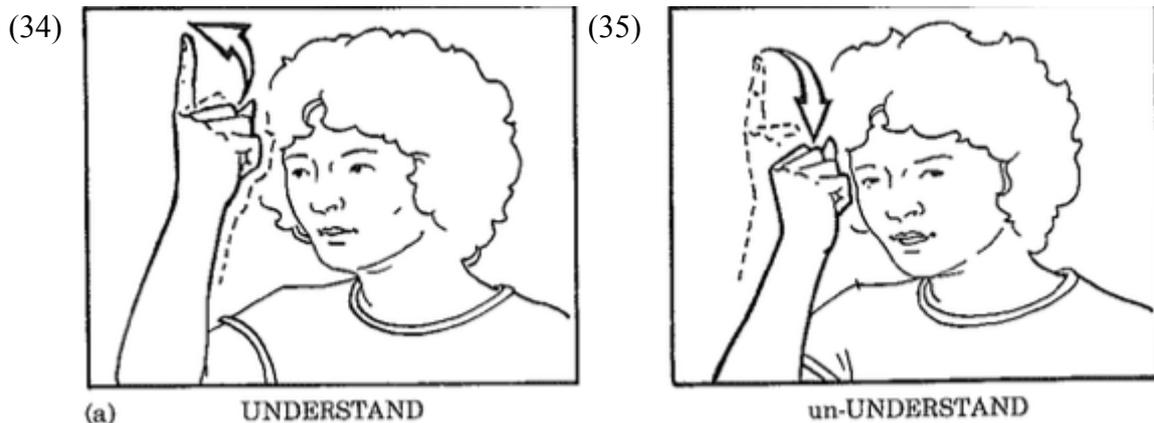
The next sign I am going to describe is a typical example of what Klima and Bellugi

(1987: 324) call ‘formational substitution’, related to ASL:

“One method of playing with sign is to substitute one regular ASL prime value for another, thus using elements of the linguistic code to create new sign forms.

This occurs when a signer intentionally distorts a sign by substituting a value that adds a new dimension of meaning. In a deliberate substitution for witty effect, when all but one of the basic characteristics of a sign are retained, the resulting distortion is a possible but not an actual ASL sign [...] which differs from an ASL sign in a way that is significant and meaningful [...].”

Klima and Bellugi (1987) describe a series of formational parameter substitutions, including ‘movement substitution’, which is the case of the slang term that I am going to show. The authors report the example of a deaf person who signed UNDERSTAND (picture 34)<sup>45</sup> but made the sign with a reversed movement, conveying an opposite meaning of the standard sign with a witty effect (picture 35).



In my research, a boy told me the following context: when someone tells someone that he thinks he is HUMBLE (picture (36)), and the interlocutor does not agree with him, stating the contrary, he will first sign the standard HUMBLE sign, and then he will modify the movement (from a backward movement to a forward movement (picture (37)), keeping the U handshape unchanged).

<sup>45</sup> The pictures (33) and (34) are taken from Klima and Bellugi (1987: 327)

(36)



HUMBLE

(37)



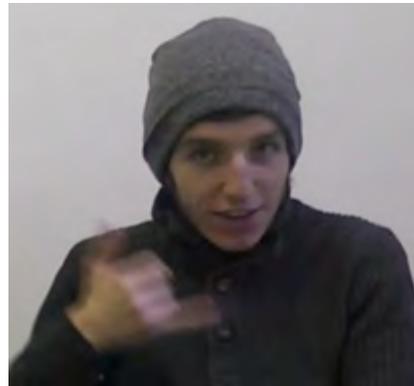
NOT-HUMBLE

The same happens with the sign CLEVER, to specifically make fun of a person who studies a lot. The standard sign is a compound sign consisting of two parts: in the first part, the G handshape touches the forehead (picture (38)), in the second part the hand turns into a Y handshape moving downward in the neutral space in front of the signer (picture (39)). In (40), we assist to a case of ‘handshape substitution’, since, in the slang term, the second part of the sign is produced with the middle finger extended (picture (40)), a clear offensive gesture within the Italian culture, with the intention to offend the diligent guy.

(38)



(39)



CLEVER

(40)



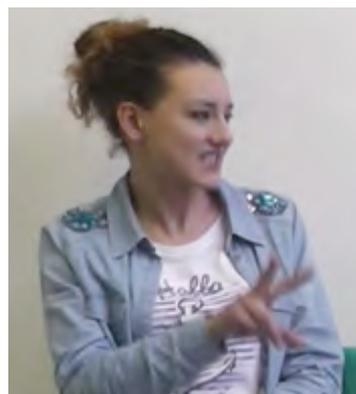
CLEVER (insult)

### 3.2.1.7 Iconicity and classifiers

Another classification includes signs with a high degree of iconicity and slang terms which are produced through classifiers.

The first one refers to the term *joint*, the roll marijuana cigarette. The first part of the sign corresponds to an S, followed by a V: the S reminds of the shape of the filter, the V corresponds to the shape of the paper used for rolling cigarettes and joints. Therefore I glossed the slang term as SV (picture (41)). A very interesting evolution of this sign has developed among some deaf students: since SV is becoming more and more transparent and known by most of the students, a new opaque version has appeared: the sign is glossed as CB (picture 42)<sup>46</sup>, the two letters corresponding to the same SV letters, translated into the Cyrillic Ukrainian alphabet. This sign comes from the girl I interviewed, who has Ukrainian origins.

(41)



SV (joint)

(42)

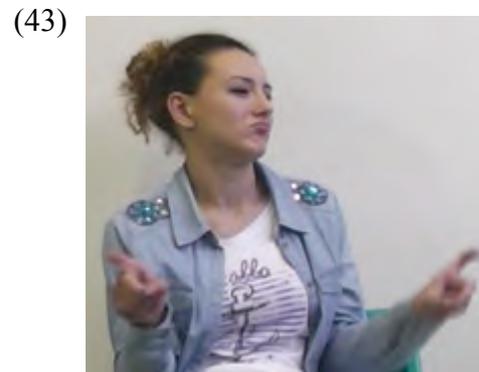


CB (joint)

---

<sup>46</sup> In (43) the non dominant hand has the only role to list the second version of the SV sign.

Another sign employing a classifier is SEX. In fact, as we can see in picture (43), the sign refers to the sexual act, and the index fingers with a hook-like G handshape are the classifiers employed to refer to the legs of a woman having sex.



SEX

Another sign can be identified as using a classifier: it is produced with the two index fingers extended and it means 'angry'. The fingers represent the movement of furrowed eyebrows. The sign glossed ANGRY (picture (44)) is articulated in front of the signer's chest.



ANGRY

The sign BED (picture (45)) also employs a classifier. It is used as a synonym of 'to have sex'. The classifier selected aims at reproducing the shape of the bed by extending vertically the index and the little finger as if they were the handboard and the footboard of the bed, whereas the middle finger and the ring finger are extended horizontally and move up and down, reproducing the mattress. In fact, the sign reproduces the movement of the bed during the sexual intercourse.

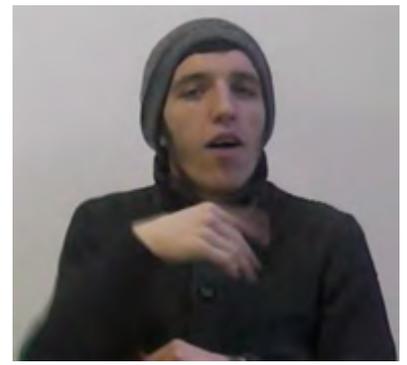
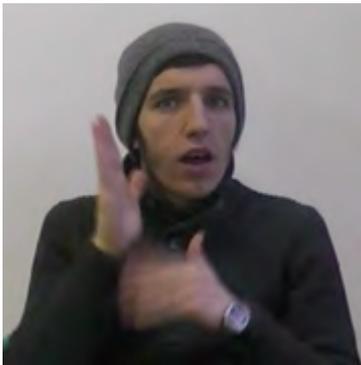
(45)



BED

A last sign included in this category is the sign ERECTION (picture (46)). It refers to the male sexual excitement, and it is used in presence of a very seductive woman. I classified this sign in this category since it iconically reproduces a mountain through the hand movement from the bottom to the top, and then descending again.

(46)



ERECTION

### 3.2.1.8 Special Oral Components

I decided to include another category even if I will describe only one term, which I consider very interesting for its complicated evolution.

The sign is glossed as STRANGE: the standard STRANGE sign (picture (47)) in LIS is accompanied by a 'VI' oral component. The slang term is composed by the number six (48), followed by the adjective ROMAN (49). This is because the two letters VI (from the oral component) can also be interpreted as the six Roman numeral.

(47)



STRANGE

(48)



Number 6

(49)



ROMAN

### 3.2.2 Results from adult signers

In this section, I will discuss some slang terms coming from the interviews I collected from the Roman signers, who are older than the students in Padua. The girl was born in Rome, she attended the Smaldone's boarding school in Salerno until high school and then she came back to Rome, where she is studying at the university. The guy was born in Rome, where he attended the Silvestri's State Institute for the Deaf.

I found two identical signs for what concerns the sign SV (picture (50)) and the play on words as in picture (29), (30), (31), (32), (33): they remember that this wordplay was used at the Paduan Magarotto's boarding school and then it spread among Deaf signers in other Italian cities.

Other slang terms I found is SNOW (picture (51)), a metaphor used to refer to cocaine. Also the initialized sign glossed MSC has the same meaning, and it is a play on words made on the basis of the name of the MSC Cruises, the global world's largest cruise company. The slang terms uses the three initial letters MSC (picture

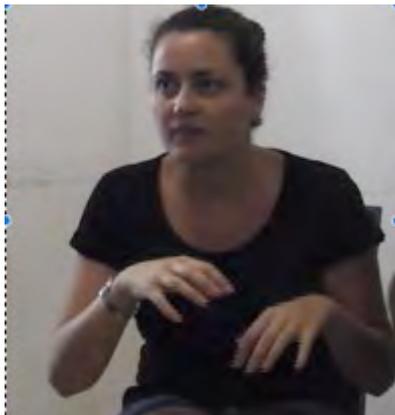
(52)) as an acronym for the following Italian expression ‘*Mi Sniffo Cocacina*’ (*I sniff cocaine*). A last metaphor used to refer to cocaine is a slang term, which compares cocaine to the white lines on the road (picture (53)).

(50)



SV (cocaine)

(51)



SNOW (cocaine)

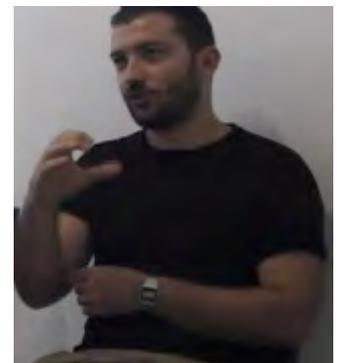
(52)



M

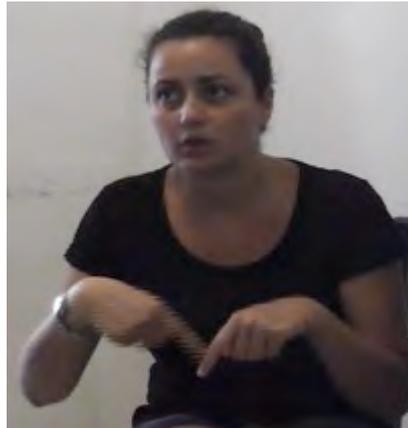


S



C

(53)



WHITE LINES (cocaine)

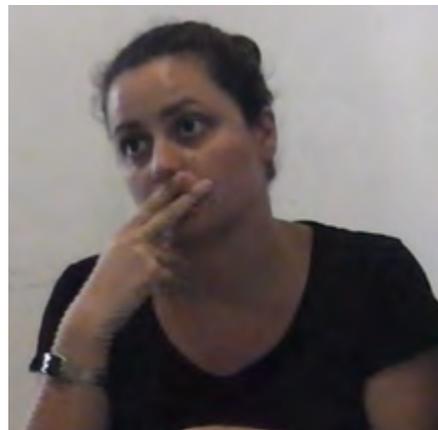
My informants told me that some of these slang terms are used by some Deaf young signers in Rome, but they could not think of other slang terms. They know that when they were in college, many students invented a lot of slang signs, but the girl I interviewed could only remember the sign CIGARETTE, reproduced in picture (54), instead of the standard sign (picture 55), in order not to be discovered by the nuns of the college, who were in charge of the education of the Deaf.

(54)



CIGARETTE (slang)

(55)



CIGARETTE (standard)

#### 4. Summary

The aim of this chapter was to try to investigate the Deaf culture through an analysis of the slang terms employed by young LIS signers, proving that this language has the same linguistic resources exhibited by spoken languages. It was interesting to analyse slang signs in the perspective of the high degree of iconicity, typical of the sign languages, and to see how many strategies can be adopted to create new signs. From

the results obtained, the main observations I can draw is that I found differences among the groups I interviewed: the first couple (the 19 years old girl and the 18 years old guy) were the ones who understood deeper what I was looking for and who demonstrated to know many slang terms, that they use daily. Their use of slang terms shows that they have already experienced a lot of transgression and they have found the way to talk about them in a secret way. The second couple, the two boys, (17 and 18 years old) produced a lot of slang terms belonging to the football sphere, as this is something they like and that they know very well.

The third couple was composed by two younger girls (14 and 16 years old). What I found is that they did not know most of the terms produced by the older students, and they could tell me very few slang terms. My hypothesis is that, being younger, they still do not belong to the groups in which slang is stronger, and, furthermore, they do not have the same experience as older students have, so they lack some signs because they do not feel the need to use them.

For what concerns the adult informants, they were very aware of what was the aim of my interview, but they could remember a very limited number of signs, since they are adults now and they do not use those signs anymore, as they do not need to keep their conversations secret from authorities or adults.

From the results, it has been demonstrated also how sign languages use similar techniques as spoken languages (metaphor, metonymy, hyperbole, synecdoche and other plays on words) to create new slang terms, which are very ephemeral and can easily disappear in a few years, evolve and change, helping the language to become richer and showing its linguistic potential. The eighteen-year-old boy explicitly explained what one of the main techniques they use to create slang terms is: they take foreign terms from spoken or signed languages and from word coming from Italian dialects, and they include them into their everyday language.

It is not easy to recognize and establish with certainty which term is slang and which is not, because, as we have already seen throughout this chapter, some terms can be assimilated into the standard language, so that it is not possible to date back the original meaning and form of a sign. As I expected, humour is a key factor in the creation of new terms, as it helps to emphasize and to give a sign a stronger impact.

The analysis of slang is very interesting because, being it an instrument of reinforcement of social identity, it can help investigating and getting closer to Deaf culture.

## CONCLUSIONS

This work has tried to provide a description of how slang can develop inside a Deaf community, in particular among young Deaf signers of Italian Sign Language, at Magarotto's boarding school, in Padua.

The analysis of slang is not an easy task, for its mechanisms of word creation are not always transparent, it is subject to evanescence and it changes from generation to generation. What is evident is that slang is very far from what is considered the standard language, generally associated to education, and for its complex nature slang is often referred to as informal or as belonging to a low register.

By focusing on word creation in spoken languages, it emerges that it is very common to find slang expressions especially among adolescents between 13 and 19 years old (Radtke, 1993): from a social point of view, adolescence represents the most difficult and conflicting period of human development, slang is a way of achieving one's identity by separating adolescents from adults and authorities. Slang has also a playful aspect: it reinforces sympathies inside a group and it decreases the seriousness of a speech, often generating fun and humorous situations.

The main fields around which slang terms develop are mainly: school, drugs, lifestyles, criminality, sexual sphere, sport, peer group, insults or appreciations (Sobrero, 1992; Mattiello, 2005). Another characteristic of spoken languages is that they employ particular strategies to create slang: new terms are created or current words are modified or used in different ways so that their meaning becomes ambiguous. Furthermore, terms from spoken languages including Italian dialects are taken and included into everyday language, undergoing a process of popularization, familiarization and conventionalization (Sornig, 1992). In this way, it becomes hard to understand the meaning of a slang expression and to trace its origin.

Slang terms are often created thanks to the use of rhetorical figures, like metaphors, euphemisms, hyperboles, similes. Irony is another fundamental factor: it is very productive because it allows the speaker to refer to the opposite meaning of what he is saying, and this generates humour.

As far as my research is concerned, I decided to conduct interviews at Magarotto's College because colleges for the Deaf are prolific settings where slang can easily emerge among students: the context favours daily exchanges in the students' lives where they have the opportunity to share a lot of different personal experiences.

Moreover, residential schools are restricted settings in which students interact in groups and constantly produce a huge number of new expressions, enriching and providing innovation to their language.

What has emerged from this research shows that there are many parallelisms between slang of spoken and signed languages. In fact, the slang signs collected in this study refer to the same semantic fields of the slang terms found in spoken languages: the Deaf students I interviewed use many slang signs to refer to sex, drugs, appreciations and insults, sport, feelings and emotions, in order not to be understood by teachers and by those who do not belong to their peer group. It is easy to understand how individuals who express themselves through the same language tend to form a social group in which they identify and to which they feel they belong by sharing behaviors, values and traditions. In this sense, slang language plays a cultural role, determining the cohesion of Deaf students as a social group.

Another parallelism between spoken and signed languages is that also slang signs are influenced by other signed or spoken languages and from dialectal terms, often conveying a witty effect.

It is also evident how in LIS rhetorical figures are the most employed strategies to create new words. I identified seven categories including metaphors, metonymies, synecdoches, neologisms, play on words/sign modifications, hyperboles, iconicity/use of classifiers.

In particular, metaphor is a very productive figure of speech creating parallelisms and obscuring the real meaning of a term, since it can refer to something by using other images, allowing to refer to it without being explicit. For example, a metaphor to refer to marijuana is the sign SALAD: the relation bounding the two elements is the green colour and the fact that marijuana looks like grass.

Other recurring rhetorical figures are synecdoche and metonymy, very similar as they both have relations with other entities: synecdoche refers to a thing by the name of one of its parts, whereas metonymy replaces the name of a thing with the name of something else with which it is closely associated according to different relations. For example, I categorized the signs GREEN and WHITE as synecdoches, because I considered the colours to be an intrinsic feature of the referents they refer to, that is respectively marijuana and cocaine. Instead, the sign TEMPERATURE is one of the examples I reported for metonymy: the temperature is the effect caused by a state of sexual excitement.

Neologisms are very frequent: they tend to change some of their traits whenever their meaning starts to become more and more intelligible and employed by people not belonging to the group within it was first created.

An example of neologism is NO-SEX, used with irony and in a playful way among friends to mean that someone is not having sex in a long time.

Playing with signs is another way to create new slang terms and one of the clearest examples of this is the sign HUMBLE, modified in the formational parameter of movement, from a backward to forward, thus conveying an opposite meaning from the original HUMBLE sign in LIS.

Hyperbole is also a very productive strategy. It has a particular effect since it helps creating a fun situation by exaggerating a concept: for example, the sign FEVER 39 is used to refer to someone who is very gossipy, at the point that he may cause temperature to the hearer. Humour and irony have revealed to be key factors in creating slang terms, and this is even truer if we think that for the Deaf culture humour has a fundamental role in creating cohesion among members of the Deaf community (Martineau, 1972). The more a slang term has a witty effect, the more it will permeate and consolidate into the standard language (Chesley and Baayen, 2010; Labov, 1992).

Another characteristic of slang terms in LIS that I found during my research is that they can also be produced by using classifiers and iconic signs. The use of classifiers has the advantage to give the signer the possibility to choose a characteristic of a referent by focussing on a detail that is not directly transparent and to refer to it in a secret way. For example, the sign ANGRY is a classifier representing the movement of furrowed eyebrows and it is articulated in front of the signer's chest in a way that its meaning is not immediately transparent.

The results suggest that there is a strong difference among the groups I interviewed: the students aged 18 and 19 provided a huge number of slang terms, whereas the couple composed by two younger girls (13 and 14 years old) knew very few slang terms.

Another couple was composed by two guys (17 and 18 years old) and their slang language was permeated of terms connected to the football domain, as this was their favourite hobby.

As a last analysis, I decided to compare these observations with an interview I administered to a couple of Deaf adults, aged 26 and 27. The results confirmed my

hypothesis: because of their adult condition, they did not employ slang terms anymore. They could remember very few of them from their adolescence, but they were sure that, when they were younger and attended the College for the Deaf in Rome and Salerno, students used many slang expressions. However, a couple of slang terms were the same as those I elicited in Magarotto's College: slang signs can pass on from generation to generation spreading all over Italy during Deaf cultural events and meetings among young signers. The spreading of slang signs is facilitated thanks also to the communications media, the Internet, the social network that today constitute more and more fundamental tools for the Deaf to communicate ideas and share information.

I believe that many more interesting results will emerge by conducting other interviews in other Italian cities and other residential schools for the Deaf, in order to confirm or test the results of my discussion, comparing other strategies, observing their evolution through time and focusing on the effects of the slang terms permeating the standard sign language.

I hope this work can contribute to the sociolinguistic research on sign languages as a first approach to the topic of the slang in LIS, providing again a further evidence of the richness and validity of sign languages and to encourage their official linguistic recognition.

## REFERENCES

- Aarons, D., B. Bahan, J. Kegl, & C. Neidle [ABKN] (1992). Clausal Structure and a Tier for Grammatical Marking in American Sign Language. *Nordic Journal of Linguistics* 15, pp. 103-142
- Ajello, R., Mazzoni, L., Nicolai, F. (1998). Gesti linguistici: la labializzazione in LIS. *Quaderni della sezione di glottologia e linguistica*, Università "G. D'Annunzio", Chieti, pp. 5-45.
- Allsop, L., Woll, B., and Brauti J.M. (1995) International Sign: The Creation of an International Deaf Community and Sign Language. In H. Bos. And G.M. Schermer (eds.) *Sign Language Research 1994* (pp. 171-188) Hamburg: Signum
- Andersson L., Trudgill, P. (1990) *Bad Language*, Oxford, Blackwell.
- Andersson D., Reilly, J.S. (1997) The puzzle of negation: How children move from communicative to grammatical negation in ASL. *Applied Psycholinguistics*, 18. Pp. 411-429.
- Andersson D., Reilly, J.S. (1998) PAH! The acquisition of non-manual adverbials in ASL. *Sign Language and Linguistics*, 1 (2). Pp. 115-142
- Aronoff, M., Meir, I., & Sandler, W. (2000). *Universal and particular aspects of sign language morphology*. Unpublished manuscript, SUNY Stony Brook and University of Haifa.
- Baker-Schenk, C. (1983) A Micro-analysis of the Nonmanual Components of Questions in American Sign Language. Doctoral dissertation, University of California, Berkeley.
- Banfi E., Sobrero A. (1992). *Il linguaggio giovanile degli anni novanta: regole, invenzioni, gioco*. Laterza, Bari
- Barattieri C. (2006), *Il periodo ipotetico in LIS*. Tesi di Laurea Magistrale, Università degli Studi di Siena.
- Bayley, R., Schembri, A., & Lucas, C. 2015. Variation and change in sign languages. In A. Schembri & C. Lucas (eds.), *Sociolinguistics and Deaf Communities*, 61-94. Cambridge: Cambridge University Press.
- Battaglia K. (2011). Variazione lessicale e fonologica nella LIS, in Cardinaletti A., C. Cecchetto, C. Donati (a cura di), *Grammatica, lessico e dimensioni di variazione nella LIS*, Milano, FrancoAngeli, 189-203.
- Battison, R (1978). *Lexical Borrowing in American Sign Language*. Silver Spring, MD: Linstok Press.

Bellugi, U., Bihrlé, A., Doherty, S., Neville, H.J., Damasio, A.R., (1989). Neural Correlates Underlying Dissociations of Higher Cortical Functioning. Symposium presented at the International Neuropsychology Society, Vancouver, B.C.

Benedicto, E. ,& D. Brentari (2004). Where did all the arguments go? Argument-changing properties of Classifiers in ASL. *Natural Language and Linguistic Theory*. 22: 743–810

Bergman B., Wallin L. (1985), Sentence Structure in Swedish Sign Language, in W. Stokoe e V. Volterra (a cura di), *SLR '83*, Roma, Istituto di Psicologia, CNR e Silver Spring, Linstok Press.

Berruto, G. (2004) Prima lezione di sociolinguistica. Roma-Bari : Laterza

Berruto, G.(1995). Fondamenti di sociolinguistica. Roma-Bari: Laterza.

Bertone, C., A. Cardinaletti (a cura di) (2007), “Alcuni capitoli della grammatica della LIS”, Cafoscarina, Venezia.

Bertone, C. (2011). Fondamenti della grammatica della Lingua dei Segni Italiana. Milano: Franco Angeli.

Beugnette G., Billiant J. (1981), Etude sur la Structuration Syntaxique de Jeunes Sourds Français, in A. Harrison-Covello (a cura di), *Les Enfants Handicapés*, Paris, PUF.

Boyes-Braem, P. (1981) Significant features of the handshapes in American Sign Language. Ph. D. diss. University of California, Berkeley

Boyes-Braem, P. (1996) Eine Untersuchung über den Einfluss des Erwerbalters auf die in der deutschsprachigen Schweiz verwendeten Formen von Gebärdensprache. Informationsheft. No. 27. Zurich: Verein zur Unterstützung der Gebärdensprache der Gehörlosen.

Bouchard D., Debusson C. (1995), Grammar, Order and Position of WH- Signs in Quebec Sign Language, *Sign Language Studies* 87, 99-139.

Bouchard D. (1996), Sign Language & Language Universals: the status of order and position in grammar, *Sign Language Studies* 91, 101-160.

Branchini C. (2007) On relativization and clefting in Italian Sign Language. *Sign language & Linguistics*, Amsterdam, John Benjamins vol. 10.2, pp. 201-221

Branchini C., Donati C. (2009), Relatively different: Italian Sign Language relative clauses in a typological perspective , *Correlatives Cross-linguistically*, Amsterdam, John Benjamins Publishing Company, pp. 157-191

Branchini C.; Geraci C. (2011), *L'ordine dei costituenti in LIS: risultati preliminari* , Grammatica, lessico e dimensioni di variazione nella LIS, Milano, Franco Angeli, pp. 113-126

Brunelli M. (2011), *Antisymmetry and Sign Languages. A Comparison between NGT and LIS*, LOT Publications, Utrecht.

Burke, P. (1995) *The Jaegon of the Schools*. In: Burke P. and Porter R. (eds.) *Languages and Jargons. Contributions to a Social History of Language*, Cambridge, Polity Press, pp. 1-41.

Cardinaletti, A., Cecchetto, C. and Donati, C. (eds.). (2011) *Grammatica, lessico e dimensioni di variazione nella LIS*. [Grammar, lexicon and types of variation in LIS] Milano: Franco Angeli.

Caselli, M.C., Maragna S., Volterra, V. (2006). *Linguaggio e sordità. Gesti, segni e parole nello sviluppo e nell'educazione*. Bologna: Il Mulino.

Cecchetto, C., and S. Zucchi (2004) *Why is Spec, CP on the Right in Sign Languages?* Paper presented at Glow 2004, Thessaloniki, Greece.

Cecchetto, C. Geraci, S. Zucchi (2006) *Strategies of Relativization in LIS*. *Natural Language and Linguistic Theory*, 24(4), 945-975

Cecchetto, C. Geraci, S. Zucchi (2009). *Another way to mark syntactic dependencies. The case for right peripheral specifiers in sign languages*. *Language*. 85:2, 278-320.

Cecchetto C., Giudice S., Mereghetti E. (2011), "La raccolta del Corpus LIS", in Cardinaletti A., C. Cecchetto, C. Donati (a cura di), *Grammatica, lessico e dimensioni di variazione nella LIS*, Milano, FrancoAngeli, 55-68.

Ceil, L. *et al* (2001). *Sociolinguistic Variation in American Sign Language*. Washington DC: Gallaudet University Press.

Celo, P. (1997). *Aspetti pragmatici e linguistici nella lingua dei segni: appunti*. In M.C. Caselli e S. Corazza (a cura di), *LIS. Studi, esperienze e ricerche sulla lingua dei Segni in Italia. Atti del 1° Convegno Nazionale sulla Lingua dei Segni*. Trieste 13-15 ottobre 1995, pp. 120-132.

Chesley, P. and Baayen, R.H. (2010) *Predicting new words from newer words: Lexical borrowings in French*. *Linguistics* 48, pp. 1343-1374.

Coerts J. (1994), *Constituent order in Sign Language of the Netherlands*, in M. Brennan, G. Turner (eds.), *Word-order Issues in Sign Languages*, Durham, England: Deaf Studies Research Unit, University of Durham, 47-71.

Corazza, S. (1990). *The morphology of classifiers handshapes in Italian Sign Language (LIS)*. In C. Lucas (a cura di). *Sign Language Research: Theoretical Issues*, Washington, D.C: Gallaudet University Press.

Corina, D.P. (1989). *Recognition of Affective and Noncanonical Linguistic Facial Expressions in Hearing and Deaf Subjects*. *Brain and Cognition* 9, pp. 227-237.

Christophe, A., Guasti, M.T., Nespors, M., & van Ooyen, B. (2003). Prosodic structure and syntactic acquisition: the case of the head-direction parameter. *Developmental Science*, 6: 211–220

Deuchar M. (1983), Is British Sign Language an SVO Language?, in J. Kyle, B. Woll (eds.), *Language in Sign*, London, Croom Helm.

Dryer, M.,S. (1989) Article-Noun Order. In *Papers from the 25th Regional Meeting of the Chicago Linguistic Society* , pp. 83-97.

Eckert, P. (2003) Language and adolescent peer groups. *Journal of language and social psychology*, Volume 22, N. 1, 112-118.

Engberg-Pedersen, E. (1993) *Space in Danish Sign Language: The Semantics and Morphosyntax of the Use of Space in a Visual Language*. Hamburg: Signum Press.

Epoge, N. K. (2013) Slang in Cameroon Pidgin English. *Global journal of human social science linguistics & education (G)*, Volume 13, Issue 5, p. 24.

Fasold, R. W. (1990) *The Sociolinguistics of Language*. Oxford: Blackwell

Fisher, S. (1975), Influences on Word Order Change in ASL, in C. Li (ed.), *Word Order and Word Order Change*, New York, Academic Press.

Flexner, S.B. (1960) Preface. In: Wentworth H. and Flexner S.B. (eds.) *Dictionary of American Slang*, New York, Thomas Y. Crowell Company, pp. 6-15

Franchi, M.L.(1987). Componenti non manuali. *La lingua italiana dei segni*, ed. by Volterra, V. Bologna: Il Mulino

Franchi M.L., (2004). Componenti non manuali. In V. Volterra, (a cura di) *La lingua dei segni italiana – la comunicazione visivo-gestuale dei sordi*, il Mulino, Bologna, 159-178.

Friedman L. (1976), The Manifestation of Subject, Object and Topic in American Sign Language, in Li C. (ed.), *Subject and Topic*, New York, Academic Press.

Frishberg N. (1975), “Arbitrariness and Iconicity: Historical Change in American Sign Language”, *Language* 51, 696-719.

Geraci, C. (2002). L’ordine delle parole nella LIS. Tesi di Laurea. Università degli Studi di Milano, Facoltà di Lettere Moderne. (Prof. C. Cecchetto)

Geraci, C. (2005/2006). LIS (Lingua dei segni italiana) tra ricerca e innovazione. Tesi Dottorato di Ricerca in Società dell’Informazione. Università degli Studi di Milano-Bicocca

Geraci, C. (2006). Negation in LIS. In *Atti del Convegno NELS 35*.U-Conn, University of Connecticut (USA), 22-24 ottobre 2004. Amherst (Mass.): Book Surge Publishing.

Gleitman, L., & Wanner, E. (1982). Language acquisition: The state of the art. In E. Wanner, & L. Gleitman (Eds.), *Language acquisition: The state of the art* Cambridge, UK: Cambridge University Press. (pp. 3–48).

Gordon, P. (2004). Numerical Cognition without Words: Evidence from Amazonia. In *Science*, pp. 496-499

Greenberg, J (1966). Some universals of grammar with particular reference to the order of meaningful elements. In Greenberg (ed.): *Universals of Language*. MIT Press.

Hänel B. (2005a), Der Erwerb der Deutschen Gebärdensprache als Erstsprache: Die frühkindliche Sprachentwicklung von Subjekt- und Objektverbkongruenz in DGS, Tübingen, Gunter Narr. □

Hänel B. (2005b), The acquisition of agreement in DGS: early steps into spatially expressed syntax, in H. Leuninger, D. Happ (eds.), *Gebaerdensprachen: Struktur, Erwerb, Verwendung, Linguistische Berichte*. Special Issue 13, 201-232.

Haiman, J. (1998b) Talk is cheap: Sarcasm, alienation, and the evolution of language. Oxford: Oxford University Press.

Happ D., Vorköper M.-O. (2005), Einige Bemerkungen zur syntaktischen und morphologischen Repräsentation von Numerus in Deutscher Gebärdensprache, in H. Leuninger, D. Happ (eds.), *Gebaerdensprachen: Struktur, Erwerb, Verwendung, Linguistische Berichte*, Special Issue 13, 87-110.

Hawkins, J. A. (1983). Word Order Universals. New York: Academic Press.

Hickock, G., Bellugi, U., & Klima, E.S. (1998) What's right about neural organization of sign language? A perspective on recent neuroimaging results. *Trends in Cognitive Sciences* 2, pp. 465-467.

Hudson, R.A. (1980) Languages. In: *Sociolinguistics*. Cambridge: CUP, pp. 30-38

Johnston T., Schembri A. (2007). Australian Sign Language. An introduction to sign language linguistics, Cambridge, Cambridge University Press.

Johnson M., Lakoff G. (1980) *The Metaphorical Structure of the Human Conceptual System*. *Cognitive Science*/ 1980 (n°4), pp. 195-208.

Jarque M. J., Wilcox S., Wilcox P.P. (2003) *Mappings in conceptual space: Metonymy, metaphor, and iconicity in two signed languages*. In: Jezikoslovlje (n° 4.1), pp.139-156.

Johnston, T., Schembri, A. *Variation, lexicalization and grammaticalization in signed languages*. *Langage et société* 1/2010 (n° 131), p. 19-35

Kayne, R. (1994). *The Antisymmetry of Syntax*. Cambridge, MA: The MIT Press.

Kegl J., Neidle C., MacLaughlin D., Hoza J., Bahan B. (1996), The case for grammar, order and position in ASL: A reply to Bouchard and Dubuisson, *Sign Language Studies* 90, 1-23. □

Klima, E.S., & Bellugi, U. (1979) *The signs of language*. Cambridge, MA: Harvard University Press. (Reprinted in Paperback, 1988)

Labov, T. (1992). Social and Language Boundaries Among Adolescents, *American Speech* 67 (4), 339-366.

Laudanna, A. (1987). Ordine dei segni nella frase. In V. Volterra (a cura di), *La lingua italiana dei segni. La comunicazione visivo-gestuale dei sordi*. Bologna: Il Mulino, pp. 211-230.

Laudanna A., Volterra V. (1991), Order of words, signs and gestures: A first comparison, *Applied Psycholinguistics* 12, 135-150. □

LeMaster, B. and L. Monaghan (2004) *Variation in Sign Languages*. In *A Companion to Linguistic Anthropology*, Alessandro Duranti (ed.) Blackwell Press.

Liddell, S. (1978). Nonmanual Signals and Relative Clauses in ASL. In Siple, P. Ed. *Understanding Language Through Sign Language Research*, pp. 59-90. New York: Academic Press.

Liddell, S. (1980). *American Sign Language Syntax*. The Hague: Mouton.

Liddell, S., & Johnson, R. (1987). An analysis of spatial-locative predicates in American Sign Language. Paper presented at the Fourth International Symposium on Sign Language Research, 15-19 July, Lappeenranta, Finland.

Lillo-Martin, D. & Klima, E. S. (1990). Pointing out differences: ASL pronouns in syntactic theory. In S. D. Fischer & P. Siple (eds.), *Theoretical issues in sign language research*. Volume 1: Linguistics, 191-210. Chicago: University of Chicago Press.

Lyovin, A.V. (1997). *An introduction to the languages of the world*, Oxford: Oxford University Press.

Martineau, W. H. (1972) A model of the social functions of humour. In: J. Goldstein, & P. McGhee (eds.), *The psychology of humour*. New York: Academic Press, pp. 101-125.

Massone M.I., Curiel M. (2004), Sign Order in Argentine Sign Language, *Sign Language Studies* 5:1, 63-93. □

Mattiello, E. (2005) The Pervasiveness of Slang in Standard and Non-Standard English. *Mots Palabras Words* 6:

Mazuka, R. (1996). Can a grammatical parameter be set before the first word? Prosodic contributions to early setting of a grammatical parameter. In J.L. Morgan and K. Demuth Eds., *Signal to Syntax: Bootstrapping from Speech to Grammar in Early Acquisition*. Hillsdale, NJ: Erlbaum, pp.313-330

Mazzoni, L. (2008). *Classificatori e impersonamento nella lingua dei segni italiana*. Pisa: PLUS-Pisa University Press.

McDonald, B.H., (1982). Aspects of the American Sign Language Predicate System. Unpublished doctoral dissertation, State University of New York at Buffalo, Buffalo, NY.

Mencken, H.L., (1967) American Slang, ch. 11. In : Raven McD. Jr. and Maurer D.W. (eds.) *The American Language*, 4th edition with supplements, New York, Alfred A. Knopf, pp. 702-761.

Milkovic M., Bradaric-Joncic S., Wilbur R.B. (2007), Information status and word order in Croatian Sign language, *Clinical Linguistics and Phonetics* 21(11-12), 1007-1017.

Fisher, J., Mirus, G., Napoli, D.J. (2012). Taboo expressions in American Sign Language. *Lingua* 122, 1004-1020

Morgan J., & Demuth K. (1996) *Signal to Syntax: Bootstrapping from Speech to Grammar in Early Acquisition*. Mahwah, N.J.: Lawrence Erlbaum Associates. pp. 171-184.

Munro P. (1989) Introduction. In: Munro P. (ed.) *Slang U.*, New York, Harmony Books, pp. 1-17

Munro P. (1997) Introduction. In: Munro P. (ed.) *U.C.L.A. Slang 3*, Westwood, Department of Linguistics, University of California, Los Angeles, p. 3-28.

Nash, W. (1993) *Jargon: Its Uses and Abuses*, Oxford, Blackwell.

Neidle, C., F. MacLaughlin, J. Kegl and B. Bahan (1996). Non-Manual Correlated of Syntactic Agreement in American Sign Language.

Neidle, C., J. Kegl, D. MacLaughlin, B. Bahan, R.G. Lee [NKMBL] (2000). *The Syntax of American Sign Language. Functional Categories and Hierarchical Structure*. The MIT Press. Cambridge, Massachusetts. London, England.

Nespor, M., and W. Sandler (1999). Prosody in Israeli Sign Language. In *Language and Speech*, 42 (2-3), 143-176.

Neville, H. J., & Bellugi, U. (1978). Patterns of Cerebral Specialization in Congenitally Deaf Adults: a Preliminary Report. In *Understanding Language Through Sign Language Research*, ed. Patricia Siple. New York: Academic Press.

Neville HJ, Schmidt A, Kutas M (1983) Altered visual-evoked potentials in congenitally deaf adults. *Brain Res* 266(1): 127-32

Padden, C. (1983) Interaction of Morphology and Syntax in American Sign Language. Doctoral dissertation, University of California, San Diego.

Padden, C. (1988). Interaction of Morphology and Syntax in American Sign Language. New York: Garland Publishing.

Padden, C. (1990). The Relation between Space and Grammar in ASL Verb Morphology. In *Sign Language Research: Theoretical Issues*, ed. Ceil Lucas, 118-132. Washington, DC: Gallaudet University Press.

Partidge, E. (1970) *Slang Today and Yesterday*, 4<sup>th</sup> edition, London, Routledge and Kegan Paul.

Pfau R. (2001), Typologische und strukturelle Aspekte der Negation in Deutscher Gebärdensprache, in H. Leuninger, K. Wempe (eds.), *Gebärdensprachlinguistik 2000 – Theorie und Anwendung*, Hamburg: Signum, 13-32. □

Poizner, H., Klima, E.S., & Bellugi, U. (1987). What the hands reveal about the brain. Cambridge, MA: Bradford Books/MIT Press. (Reprinted in paperback, 1990.)

Pietrandrea, P. (2000) L'interazione complessa di iconicità e arbitrarietà nel lessico LIS. In C. Bagnara, G. Chiappini, M.P. Conte, M. Ott. (eds) *La città invisibile. Atti del 2° Convegno Nazionale sulla Lingua Italiana dei Segni*, Edizioni del Cerro, Pisa. (pp. 38-49)

Pietrandrea, P. (2002). Iconicity and Arbitrariness in Italian Sign Language. *Sign Language Studies*, vol. 2, n° 3, pp. 296-321.

Pizzuto, E. (1987). Aspetti morfo-sintattici. In V. Volterra (a cura di), *La Lingua Italiana dei Segni- La comunicazione visivo-gestuale dei sordi*. Bologna: Il Mulino, pp. 179-209.

Pizzuto, E., Giuranna E., Gambino G. (1990). Manual and nonmanual morphology in Italian Sign Language: grammatical constraints and discourse structure. In C. Lucas (ed.) *Sign Language Research: Theoretical Issues*, Washington, D.C.. Gallaudet University Press. Pp. 83-102

Pizzuto, E, *et al.* (1995) Terms for spatio-temporal relations in Italian Sign Language. In R. Simone (a cura di), *Iconicity in language*, 237-256. Amsterdam: Benjamin.

Pizzuto, E., Corazza, S. (1996). Noun morphology in Italian Sign Language (LIS). *Lingua*, 98, pp. 169- 196

Quadros, R. M. de (2003), Phrase Structure of Brazilian Sign Language, In *Cross-linguistic perspectives in sign language research. Selected papers from TISLR 2000*. Signum Press: Hamburg. 141-162. □

Radtke Edgar (a cura di) (1993), *La lingua dei giovani*, Tübingen, Narr

Radutzky, E. (1989). La lingua italiana dei segni: historical change in the sign language of deaf people in Italy. Tesi di Laurea., New York University.

Radutzky, E. (1992). Cenni storici sull'educazione dei sordi e la lingua dei segni. In: E. Radutzky, (a cura di), *Dizionario bilingue elementare della Lingua Italiana dei Segni*. Roma: Edizioni Kappa, pp. 11-19.

Radutzky, E. (a cura di), (2001). *Dizionario bilingue elementare della Lingua Italiana dei Segni*. Roma: Edizioni Kappa

Radutzky E. (2009), "Il cambiamento fonologico storico della Lingua dei Segni Italiana", in Bertone C., Cardinaletti A. (a cura di), *Alcuni capitoli della grammatica della LIS. Atti dell'Incontro di studio "La grammatica della Lingua dei Segni italiana"*, Venezia, Cafoscarina, 17-42.

Reilly, J., M. McIntire, U. Bellugi (1991). WHERE SHOE. The acquisition of wh-questions in American Sign Language. *Papers and Reports in Child Language Development*, 30. Pp. 104-111.

Reilly, J. M. McIntire, H. Seago (1992). Affective Prosody in American Sign Language. *Sign Language Studies* 21: 75, pp. 113-128.

Reilly, J., U. Bellugi (1996). Competition on the Face: Affect and Language in ASL Motherese. *Journal of Child Language*, 23, pp. 219-239.

Reilly, J. (2000). Bringing affective expression into the service of language: Acquiring perspective marking in narratives. In K. Emmorey & H. Lane (Eds.). *The Signs of Language revisited: An Anthology to Honour Ursula Bellugi and Ed Klima*. Mahwah, NJ: Lawrence Erlbaum Associates. Pp. 415-434.

Russo, T. (2004). La mappa poggiata sull'isola. Iconicità e metafora nelle lingue dei segni e nelle lingue vocali. Arcavacata di Rende (CS): Centro Editoriale e Librario

Russo, T., Volterra, V. (2007) *Le lingue dei segni. Storia e semiotica*. Roma, Carocci editore.

Sager, J.C. (1982) *Jargon and Hermeticism in Special Language*, Unpublished article.

Sandler, W. (1999). Prosody in Two Natural Language Modalities. *Language and Speech*, 42 (2-3), pp-127-142.

Sandler, W. (1999c). The medium and the message: Prosodic interpretation of linguistic content in Israeli Sign Language. *Sign Language and Linguistics*, 2, 187–216.

Sandler, W. & Lillo-Martin, D. (2001). Natural Sign Languages. *Handbook of linguistics*. M. Aronoff & J. Rees-Miller (eds.) 2001. pp. 533-562

Sandler W., Meir I., Padden C., Aronoff M. (2005), The emergence of grammar: 13 Systematic structure in a new language, *Proceedings of the National Academy of Sciences* 102(7), 2661-2665. □

Sandler, W. & Lillo-Martin, D. (2006). *Sign Language and Linguistic Universals*. Cambridge: Cambridge University Press.

Saussure, Ferdinand de (1987). Essai pour réduire les mots du Grec, du Latin & de l'Allemand à un petit nombre de racines. Eds. From Ms. by Boyd H. Davis. *Cahiers Ferdinand De Saussure*. 32. Pp. 77-101

Schein, J.D., & M.T. Delk (1974). *The Deaf Population of the United States*. Silver Spring, MD: National Association of the Deaf

Schembri A., Wigglesworth G., Johnston T., Leigh G., Adam R., Baker R. (2002), Issues in Development of the Test Battery of Australian Sign Language Morphology and Syntax, *Journal of Deaf Studies and Deaf Education* 7(1), 18- 40.

Schembri, A. & Johnston, T. (2013). Sociolinguistic variation and changes in sign languages. In: R. Bayley, R. Cameron & C. Lucas (Eds), *The Oxford Handbook of Sociolinguistics*. Oxford: Oxford University Press.

Schembri, A & Lucas, C (2015) *Sociolinguistics and Deaf communities*. Cambridge, UK: Cambridge University Press.

Schick, B.S., (1987). *The Acquisition of Classifier Predicates in American Sign Language*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

Schlesinger I. M. (1971), *The Grammar of Sign Language and the Problems of Language Universals*, in J. Morton (ed.), *Biological and Social Factors in Psycholinguistics*, London, Logos Press.

Schmaling, C (2003). A for Apple: The Impact of western Education and ASL on the Deaf Community in Kano State, Northern Nigeria. In Monaghan, L., Schamling, C., Naka-mura, K., Turner, G.H. (eds.). *Many Ways to be Deaf*. Washington, DC: Gallaudet University Press.

Schroeder, O.I. (1985). A problem in phonological description. In W. Stokoe & V. Volterra (Eds.) *SLR '83*. Silver Spring, MD: Linstok.

Schuit, J. (2007). *The typological classification of sign language morphology*. MA thesis, Universiteit van Amsterdam.

Sobrero, A. (1992) Alternanza di codici, fra italiano e dialetto. Dalla parte del parlante. In: Giovanni Gobber (red.), *La linguistica pragmatica*. Atti del XXIV Congresso della SLI, Roma: Bulzoni, 143-160.

Sornig K. (1981) Introduction. In: “*Lexical Innovation: A Study of Slang, Colloquialisms, and Casual Speech*”. Amsterda. Benjamins;Philadelphia,PA: J. Benjamins North America, distributor

Stokoe, W. (1960). *Sign Language Structure: an Outline of the Visual Communication Systems of the American Deaf* (Studies in Linguistics Occasional Papers 8) Buffalo, NY: University of Buffalo, Department of Anthropology and Linguistics.

Supalla, T., & Newport, E. (1978). How many seats in a chair? The derivation of nouns and verbs in American Sign Language. In P. Siple (Ed.), *Understanding Language through Sign Language Research*. Academic Press.

Supalla, T. (1982). Structure and acquisition of verbs of motion and location in American Sign Language. Unpublished doctoral dissertation, University of California, San Diego.

Supalla, T. (1986). The classifier system in American Sign Language. In C. Craig (Ed.), *Noun Classification and Categorization*. J. Benjamins.

Suzuki E., Kakihana K. (2002), Japanese and American Sign Language Dictionary System for Japanese and English Users, in *Proceedings of LREC 2002*, 215-218 disponibile all'indirizzo:  
[http://www.irit.fr/ACTIVITES/EQ\\_TCI/EQUIPE/dalle/cognitique/Documentation/DicoLS-JapUs-332.pdf](http://www.irit.fr/ACTIVITES/EQ_TCI/EQUIPE/dalle/cognitique/Documentation/DicoLS-JapUs-332.pdf)

Sze F.Y.B. (2003) Word order of Hong Kong Sign Language, in A. Baker, B. van den Bogaerde, O. Crasborn (eds.), *Cross-linguistic perspectives in sign language research. Selected papers from TISLR 2000*, Hamburg: Signum, 163-192.

Thompson, H. (1977). The lack of subordination in American Sign Language. In L. Friedman (ed.) *On the Other Hand: New Perspectives on American Sign Language*, New York: Academic Press. Pp. 78-94.

Trumble W.R. and Stevenson A. (eds.) (2002) *Shorter Oxford English Dictionary*, 5th edition, New York, Oxford University Press.

Verdirosi, M.L., (1987) Luoghi. In V., Volterra (a cura di), *La lingua italianadei segni. La comunicazione visivo gestuale dei sordi*, Bologna, Il Mulino, 23-48.

Vogt-Svendsen, M. (1984). Word pictures in Norwegian Sign Language. *Working Papers in Linguistics*. Trondheim: University of Trondheim.

Volterra, Virginia, Laudanna, A., Corazza, S., Radutzky, E, Natale, F., (1984). Italian Sign Language: The order of elements in the declarative sentence. In: Loncke, Filip et al. (Eds.), *Recent Research on European Sign Languages*. Swets & Zeitlinger B. V., Lisse, pp. 19-46.

Volterra, V. (a cura di), (1987). *La Lingua Italiana dei Segni La comunicazione visivo-gestuale dei sordi*. Bologna: Il Mulino. (Nuova Edizione 2004)

Wardhaugh, R. (2006). *An Introduction to Sociolinguistics* (5th Ed.). Malden, MA: Blackwell Publishers.

Webster N, & Mckechnie J.L.(eds.) (1963) *Webster's New Twentieth Century Dictionary of the English Language*, 2<sup>nd</sup> edition, Cleveland and New York, World Publishing Company.

Wilbur, R.B., Klima, E., Bellugi, U. (1983). Roots: on the search for the origins of signs in ASL. *Chicago Linguistic Society* 19. Pp. 314-336.

Wilbur, R. B. (1994). Eyeblinks and ASL phrase structure. *Sign Language Studies*, 84, 221-240

Wilbur, R.B. (2000). Phonological and prosodic layering of non-manuals in American Sign Language. In: Emmorey K, Lane H, editors. *The signs of language revisited*. Mahwah, NJ: Lawrence Erlbaum Associates; pp. 215–244.

Woodward, J. (2003). Sign Languages and Deaf Identities in Thailand and Vietnam. In Monaghan, L., Schamling, K., Nakamura K., Turner, G. H. (eds.). *Many Ways to be Deaf*. Washington, DC: Gallaudet University Press.

Zeshan U. (2000), *Sign Language in Indo-Pakistan: A Description of a Sign Language*, John Benjamins Publishing.

Zucchi, S. (2003) *The Semantics of FATTO: a Cade of Grammaticalization. Paper Presented at the Fourteenth Amsterdam Colloquium.*

## Webliography

Brunelli, M. (2011) *Antisymmetry and sign languages: a comparison between NGT and LIS*  
Amsterdam Center for Language and Communication (ACLC)  
→<http://hdl.handle.net/11245/2.96257>