Linguistic issues in building a corpus for LIS (Italian Sign Language)

Chiara Branchini, Carlo Geraci,
Serena Giudice and Emiliano Mereghetti
Università di Milano-Bicocca

Based on a joint work with Mirko Santoro[1] and Elena Radutzky[2]
[1]Università Ca' Foscari, Venezia
[2]Mason Perkins Deafness Fund

Prelude


Tirolese
Ladino e Friulano
Franco-
provenzale
Sloveno
Lingua Veneta
Galloitalico
Occitano
Toscano
Meridionale
Mediano
Corso
Sardo
Tabarchino
(Galloitalico)
Meridionale Estremo

A brief history of spoken Italian

XIX Century:

- 1861-71 Italy is unified.
- Local dialects were the only mean of communication.
- The language planning chose the variety spoken in Tuscany as the standard variety of Italian.
- The linguist Graziadio Isaia Ascoli argued in favor of the use of local dialects of Italian, especially in primary schools.

The situation of Italian Sign Language

1880 The congress of Milan

- The use of sign languages was banned from Educational programs.

- (varieties of) Italian Sign Language (LIS) survived outside the classroom of residential schools.

In the last decades

- LIS obtained visibility among educators, linguists and national media.

- The government has not yet recognized LIS as the language of the Italian Deaf community.

Roadmap

- Protocol used for data collection
- Sociolinguistic Variability
- The Data
- Data coding
- Linguistic variables
- Conclusions

The Protocol

– The project
– Data collection

The Project

The project of sociolinguistic variation of Italian Sign Language is funded by the National fund PRIN.

Three Universities participate to the project:

- University of Rome-La Sapienza

(PI: Caterina Donati)

- University of Milan-Bicocca

(PI: Carlo Cecchetto)

- University of Ca' Foscari, Venice

(PI: Anna Cardinaletti)

Local branches of the National Deaf Club (Ente Nazionale Sordi) are involved in the project.

Data Collection

People and locations

- 10 Cities
- 180 Deaf people involved (18 people per city)
- 3 age groups (6 people per group)

Videotaped data

- Free conversation (45 minutes),
- Question-answer elicitiation,
- Narration/storytelling (5 minutes),
- Picture-naming task (42 items).

Sociolinguistic Variation

- The cities
- Participants' selection
- Age groups
- Social factors

The Cities

10 Cities selected

North: Torino, Milano, Padova and Trieste.

Centre: Bologna and Roma.

South: Bari, Palermo and Cagliari.

Dimensions of the Country

East-West (Alps arch): 1200 km.

North-South: 1500 km.

Selection of participants

- The local Deaf contacts (selected among the most active personalities in the local communities)
    - Help in the recruitment of participants,
    - Play the role of addressee during the narration task,
    - Administer the picture-naming task.

- The locations for data collection are provided by the local branch of the Ente Nationale Sordi, the National Deaf Club.

- Each participant fills a form where information about non-linguistic variables (age, education, job, etc.) are collected.

Age groups

Three age groups are created as follows:

- from 18 to 30 years old
- from 31 to 54 years old
- from 55 upwards

A National law (517/1977), approved on August 4th 1977, stated that Deaf children can be educated either in “special schools” or “in ordinary classes of public schools”, in which special integration and special care are provided (sic.).

Social Factors

Social variables that are known to play a role in sociolinguistic variation:

- Family background,
- Education,
- Socioeconomic status …

A possible source of variability:

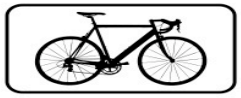
- Role in the Deaf community.

The data

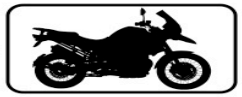
– Question-answer elicitation
– Picture-naming task

Question-answer elicitation

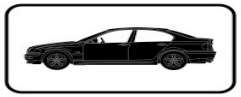
VEICOLI COINVOLTI



0 1 2 .....

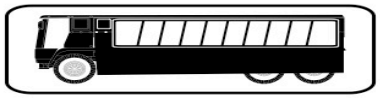


0 1 2 .....



0 1 2 .....

0 1 2 .....



0 1 2 .....

LUOGO

.....

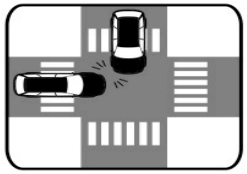
.....

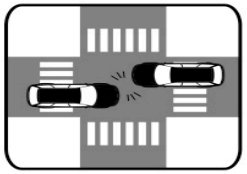
.....

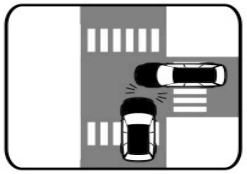
.....

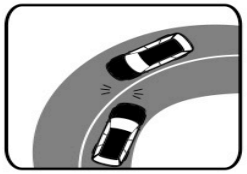
.....

DINAMICA DELL'INCIDENTE

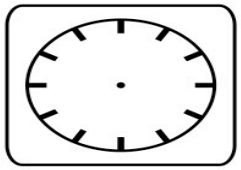


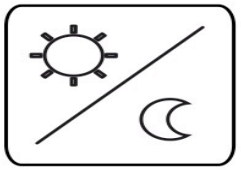






ORA



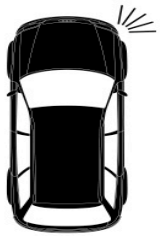


FERITI

0 1 2
3 4 5

0 1 2
3 4 5

DANNI MATERIALI SI NO



Picture-naming task

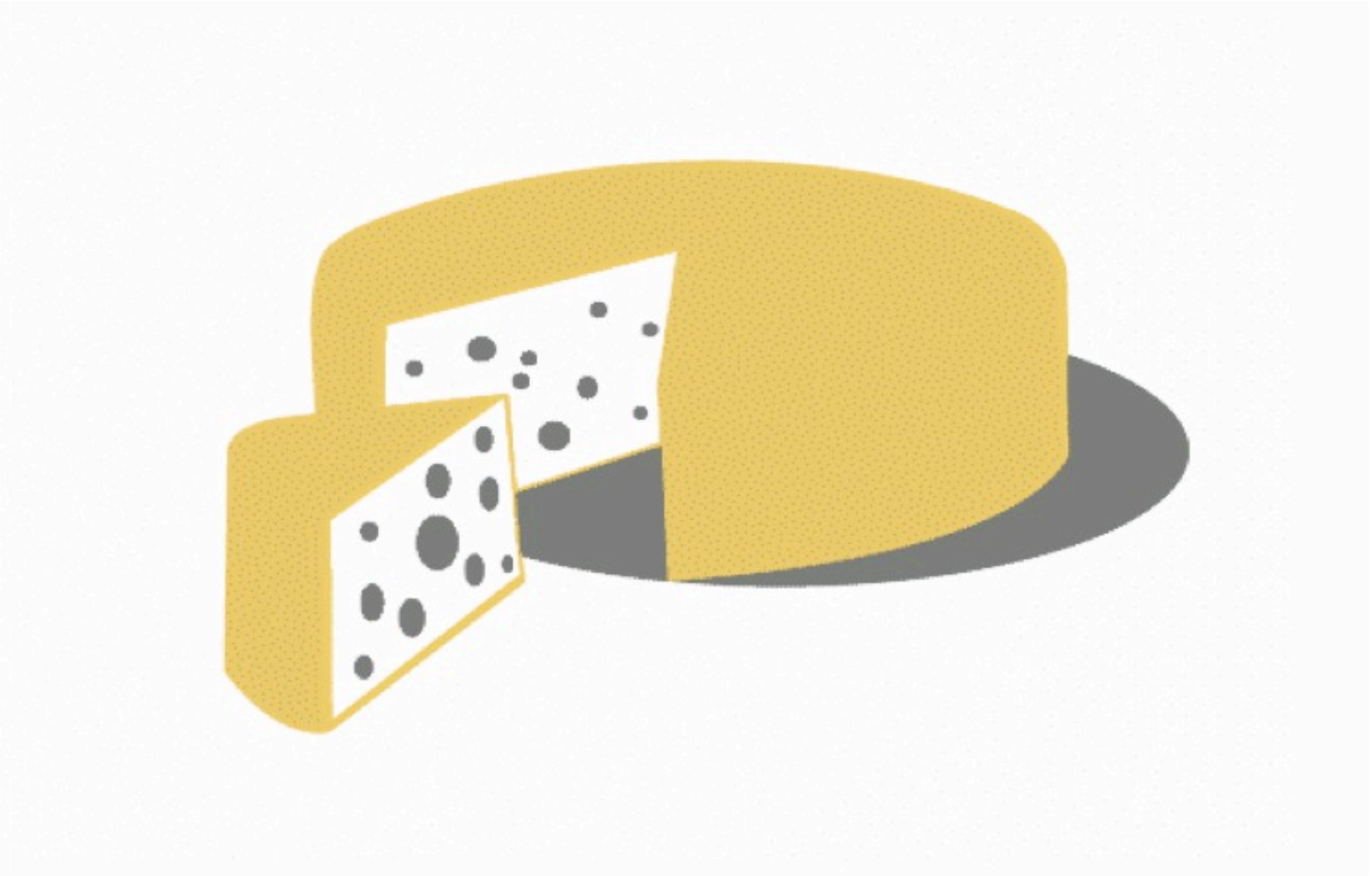
We selected 42 items from different lexical fields in order to investigate sociolinguistic variation in the lexicon of LIS.

- Colors' name
- Initialized forms
- Compounds
- Fingerspelled words
- Months' name
- Family names
- Classifiers
- Eligible for diachronic variation

This task is not limited to investigate geographical variation; indeed the last category includes signs whose phonetic characteristics make them eligible for diachronic variation (Radutzky, 1987, 2009 and Toffali and Geraci, 2008).

Diachronic Variation: Coffee

Diachronic Variation: Cheese



Data coding

– Data Recording
– The coding procedure

Recoding the data

– All the data are collected by videotaping the signers with three digital video cameras.

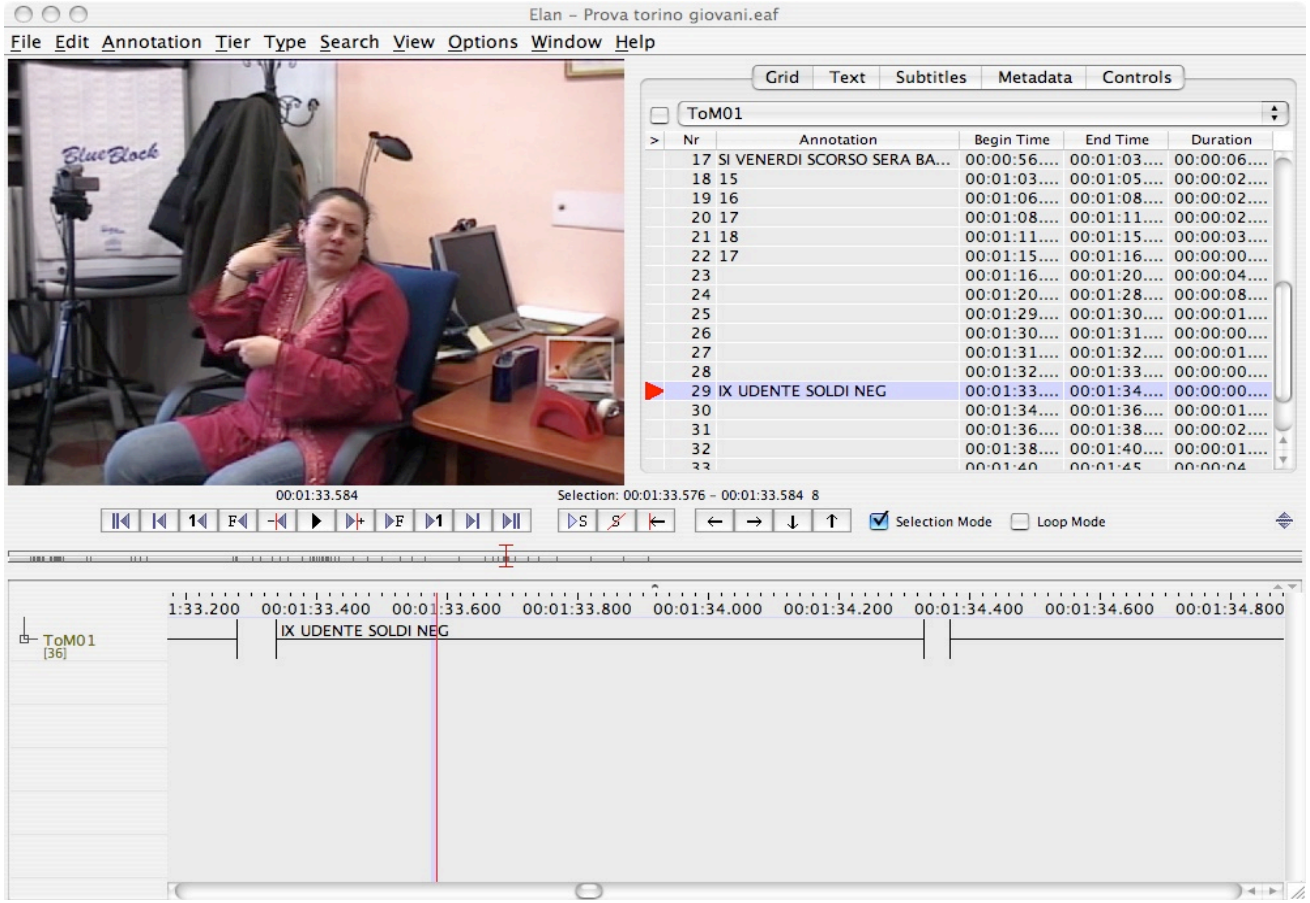
– The cameras record in Standard Definition and provide mpg2 video files.

– Two Deaf native signers of LIS code the files by using the software ELAN (3.7.2-1).

The coding procedure (Part I)

The coding procedure includes the following steps:

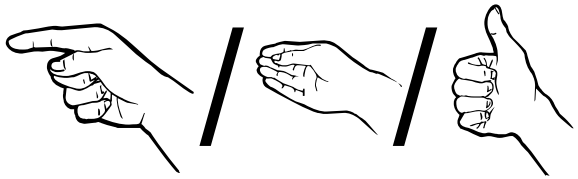
- –Utterance coding (this step provides a raw index of loquacity, Barrett, 2008).
- –Searching for the linguistic variables.
- –Transcription of the signs.



Linguistic variables

List of the variables

In the two-year project we aim at coding for:

- 1st - 2nd person pointings 

- The distribution of the adjective ‘nice’ (BELLO)

- **<u>The distribution of wh-signs</u>**.

The case of wh-signs

(1) *Pattern of object wh-questions in LIS (from Cecchetto et al. 2009)*

a. GIANNI SIGN WHAT (sentence final position)
b. GIANNI WHAT SIGN (*in situ* position)
c. GIANNI WHAT SIGN WHAT (*in situ* + sentence finally)
d. * WHAT GIANNI SIGN (no wh- in sentence initial position)
e. * WHAT GIANNI SIGN WHAT
f. * WHAT GIANNI WHAT SIGN
"What did Gianni sign?"

(2) *Pattern of subject wh-questions in LIS*

a. CONTRACT SIGN WHO (sentence final position)
b. WHO CONTRACT SIGN (*in situ* position)
c. WHO CONTRACT SIGN WHO (*in situ* + sentence finally)
"Who signed the contract?"

Caveat: LIS is taken to be an SOV language

Wh-signs: spontaneous data

In the SL literature, the pattern is familiar (see Zeshan, 2006 for a typological overview of wh-questions in SL).

How the grammar built on the intuitions of native signers reflects real language data.

Our corpus includes data from both native (Deaf with Deaf parents) and non-native (Deaf with hearing parents) signers.

We expect variation to show up, including cases marked as ungrammatical by native signers. An example is cases of wh-signs moved to the left periphery of the sentence, as in spoken Italian.

Wh-signs: linguistic issues (I)

Cases of left peripheral positioning are attested in our corpus, as illustrated in (3), produced by two different signers:

(3) a. PARIS WHERE
b. WHERE PARIS
“Where in Paris?”

Thus, although relatively simple from a descriptive standpoint, the pattern illustrated in (1-2) becomes highly complex once we try to define it in terms of a linguistic variable for quantitative analysis.

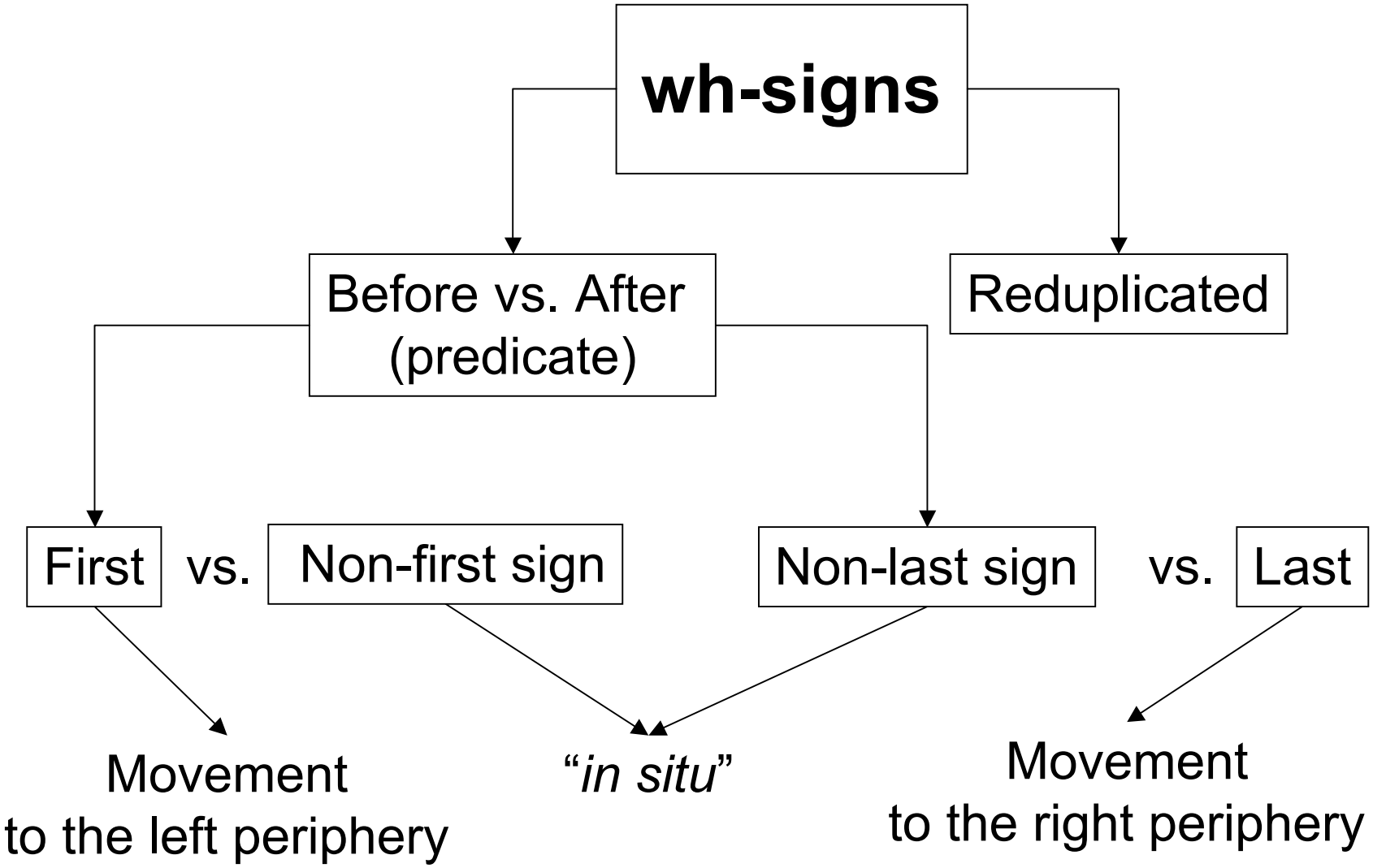
Wh-signs: linguistic issues (II)

Consider the utterances in (4), produced by middle age signers from Torino:

(4) a. CALL WHO
"Who called?"
b. WHO STOP
"Who has to stop?"

Occurrences like 4b are not immediately easy to attribute: They can not be straightforwardly assimilated either to cases of *in situ* wh-signs, or to cases of leftward movement.

This is more or less the same issue raised by cases of subject wh-question in English, where it is not immediately clear to ascertain whether they are cases of *in situ* wh- phrases, or cases of leftward movement.


wh-signs
Before vs. After (predicate)
Reduplicated
First
vs.
Non-first sign
Non-last sign
vs.
Last
Movement to the left periphery
"in situ"
Movement to the right periphery

Conclusions

In this talk, we presented the outline of an ambitious research project aiming at describing sociolinguistic variability of Italian Sign Language.

At this point we should thank and name all the (DEAF and hearing) people who participated in this research.

Unfortunately we haven’t taken a collective picture of us, yet.

This is a preliminary report :-)

Thank you!

Selected References

Ascoli, G. I. 1975. *Scritti sulla questione della lingua*. Torino: Einaudi.

Cecchetto, C., C. Geraci, and S. Zucchi. 2009. Another way to mark syntactic dependencies: The case for right peripheral specifiers in sign languages. Language 85:2 (1-43).

Lucas, C., R. Bayley, and C. Valli. 2001. *Sociolinguistic variation in American Sign Language*. Washington, D.C.: Gallaudet University Press.

Toffali, L. and C. Geraci. 2008. Tendenze conservatrici e innovative nell'uso delle lingue: la variabile dell'età nella Lingua dei Segni Italiana. In *La qualità della vita nella società dell'informazione*, G. Bella and D. Diamantini (eds). Milano: Guerini e associati.

Radutzky, E. (1987). The changing handshape in Italian Sign Language. In: Edmondson, William H., Karlsson, Fred (eds): SLR´87: Papers from the Fourth International Symposium on Sign Language Research. Lappeenranta, Hamburg. Signum (94-113).

Radutzky, E. (2009). Il cambiamento fonologico storico della Lingua dei Segni Italiana. In Alcuni capitoli della grammatica della LIS, C. Bertone and A. Cardinaletti (eds). Venezia: Cafoscarina.

Volterra, V. (ed) *La lingua italiana dei segni*. Bologna: Il Mulino.

Zeshan, U. (ed) 2006. *Interrogative and negative constructions in sign languages*. Nijmegen, NL: Ishara Press.