1 Sentence types

Summary   1.1 Declaratives. – 1.2 Interrogatives. – 1.3 Imperatives. – 1.4 Exclamatives. – 1.5 Negatives.

A sentence is a unit in which words are grammatically linked to make a statement or to describe something (typically via a declarative sentence), to express a command (typically via an imperative sentence), to elicit information from an addressee (typically via an interrogative sentence), or to convey surprise (typically via an exclamative sentence). Sentences can be classified according to two main dimensions: their type (declaratives, imperatives, interrogatives, and exclamatives) and their internal complexity. A sentence is simple when it consists of a single independent clause ('Gianni arrived on time'), while it is complex when it consists of a main and a subordinate clause ('I think that Gianni arrived on time') or of two (or more) coordinate clauses ('Gianni arrived on time but Maria arrived late'). In principle, the number of subordinated clauses is unlimited ('Gianni said that I think that Maria claimed that Piero is convinced that you arrived on time') although in practice there are limitations of the sentence length due to cognitive limitations (for example, working memory).

The most prominent categorization of sentences is according to their function: declarative, interrogative, imperative, and exclamative.

1.1 Declaratives

Declarative sentences are used to express statements, to make something known, to explain, or to describe. The typical declarative sentence contains at least a predicative nucleus consisting of a subject and of a predicate.

a. GIANNI SMART
'Gianni is smart.'

b. MARIA CHOCOLATE BUY
'Maria bought chocolate.'

In these sentences the property of being smart is predicated of Gianni, and the property of buying chocolate is predicated of Maria.

However, there can be elliptical sentences with a minimal structure. In the following question-answer pair, the single word utterance GIANNI can be considered a sentence as long as it is interpreted as the elliptical version of 'Gianni arrived late.'

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                   wh
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A: ARRIVE LATE WHO
B: GIANNI
'Who arrived late?' 'Gianni.'

Declaratives can be simple sentences as above or more complex constructions. For example, two declaratives can be coordinated.

MARIA CAT LIKE BUT DOG HATE
'Maria likes cats but hates dogs.'

A declarative sentence can be embedded under another declarative sentence [SYNTAX 3.3].

GIANNI THINK MARIA CHOCOLATE BUY
'Gianni thinks Maria bought chocolate.'

Declaratives can be affirmatives and negatives. An affirmative or positive sentence is used to express the validity or truth of a basic assertion while a negative sentence expresses its falsity. This quality of meaning is often referred to as negative and positive polarity. Negative sentences are illustrated below.

<u>   neg </u>
a. MARIA CAT SEE NOT
'Maria does not see the cat.'

<u>   neg </u>
b. WINE BUY NOBODY
'Nobody bought wine.'

Declaratives are the unmarked or most neutral type of sentence in comparison to the other three types. As such, they are the compass for examining various grammatical structures. Our description of interrogative, imperative and exclamative sentences will explain how they differ from declaratives.

1.2 Interrogatives

The term interrogative refers to a grammatical form that is specialized for the following main uses:

i)   to ask whether a certain state of affairs holds:

<u>   y/n </u>
A: GIANNI ARRIVE
B: YES
'Did Gianni arrive?' 'Yes.'

ii)   to elicit information from the addressee:

<u>   wh </u>
A: GIANNI BUY WHAT
B: WATER
'What did Gianni buy?' 'Water.'

iii)   to report a doubt:

$$\overline{\text{\hspace{8cm}}\text{wh}}$$
a. IX$_1$ THINK PALM_UP GIANNI IX BUY Q$_{\text{artichoke}}$ PALM_UP
'I wonder what Gianni bought.'

$$\overline{\text{\hspace{5cm}}\text{y/n}}$$
b. IX$_1$ THINK IX GIANNI WINE BUY DONE
'I wonder whether Gianni bought wine.'

It is possible to distinguish between: i) polar interrogatives (sometimes called yes/no interrogatives because they ask whether a certain state of affairs holds or not, so they are naturally answered by 'yes' or 'no'), ii) alternative interrogatives, which present two or more options for the reply, and iii) content interrogatives, which elicit a more elaborate answer than 'yes' or 'no' because they are used to ask the addressee to fill in some specific missing information.

1.2.1 Polar interrogatives

An example of direct polar interrogative in LIS is provided below.

$$\overline{\text{\hspace{2cm}}\text{y/n}}$$
SICK IX$_2$
'Are you sick?'
An example of indirect polar interrogative is shown below.

$$\overline{\text{\hspace{4cm}}\text{y/n}}$$
IX$_1$ THINK GIANNI SICK
'I wonder whether Gianni is sick.'

Polar interrogatives may differ from declaratives only for the presence of certain non-manual markers. For example, the two sentences below are distinguished only non-manually: the yes/no non-manual marking (raised eyebrows) is absent in the declarative (a) and present in the polar interrogative (b).

a. IX$_3$ CINEMA GO
'He will go the cinema.'

$$\overline{\text{\hspace{3cm}}\text{y/n}}$$
b. IX$_3$ CINEMA GO
'Will he go to the cinema?'

However, polar interrogatives may be distinguished from declaratives also by the presence of the sign YES^NO in sentence final position.

<div style="text-align:center">

_____y/n

IX₂ PIZZA WANT YES^NO

'Do you want pizza?'

</div>

In polar interrogatives, the subject pronoun naturally occurs at the end of the sentence.

<div style="text-align:center">

_____y/n

PIZZA WANT IX₂

'Do you want pizza?'

</div>

The subject pronoun can be doubled, namely it can occur both at the beginning and at the end of the sentence. This happens in the following question, in which a modification of non-manual marking denotes surprise for the fact that the interlocutor is eating pizza (but doubling does not seem to be restricted to these cases).

<div style="text-align:center">

_____y/n

IX₂ PIZZA WANT IX₂

'Do you want pizza?'

</div>

1.2.1.1 Non-manual markers in polar interrogatives

Polar interrogatives occur with specialised non-manual markers, which include facial expressions such as eye contact with the addressee and raised eyebrows. A change in head and body orientation, head nod, and head shake can also occur. These non-manual markers occur over the entire clause with the exception of polar interrogatives containing YES^NO, where non-manual markers occur only on this sign.

1.2.1.2 Word order changes between declaratives and polar interrogatives

Although word order in polar interrogatives has not been systematically investigated, polar interrogatives are not distinguished from declaratives by means of word order change but mainly by non-manual marking.

1.2.1.3 Interrogative particles

An interrogative particle is a sign whose unique function is to indicate that an utterance is an interrogative. Clear cases of interrogative particles in polar interrogatives have not been reported for LIS, although the sign YES_NO optionally occurring in sentence final position is a possible candidate, whose status deserves further examination.

1.2.2 Alternative interrogatives

Alternative interrogatives present two or more options for the reply. The following are different realisations of alternative interrogatives.

$$\overline{\qquad\qquad\text{y/n}\qquad}$$
a. WANT COFFEE OR TEA
'Do you prefer coffee or tea?'

$$\overline{\qquad\qquad\qquad\text{wh}}$$
b. COFFEE TEA WANT WHICH
'Do you prefer coffee or tea?'

$$\overline{\qquad\qquad\qquad\qquad\qquad\qquad\qquad\text{y/n}}$$
c. dom: IX$_{[thumb]}$ ICE_CREAM IX$_{[index]}$ WATER IX$_{[thumb]}$ IX$_{[index]}$ WANT WHICH
   n-dom: TWO------------------------------
'Do you prefer ice cream or water?'

An example of indirect alternative interrogative is provided below.

$$\overline{\qquad\qquad\qquad\qquad\text{wh}}$$
GIANNI$_a$ IX$_1$ $_1$ASK$_{3a}$ WANT WHICH TEA OR COFFEE
'I asked Gianni whether he prefers coffee or tea.'

1.2.3 Content interrogatives

Content interrogatives are used to ask the addressee to fill in some specific missing information. In LIS, as in many languages, they contain a specialized set of interrogative words or phrases. Since in English most of these interrogatives contain the morpheme *wh-*, content interrogatives are sometimes called *wh*-interrogatives.

An example of direct content interrogative in LIS is provided below.

$$\overline{\qquad\qquad\text{wh}\qquad}$$
A: IX$_2$ BUY WHAT
B: ICE_CREAM
'What did you buy?' 'Ice cream.'

Below, we show an example of indirect content interrogative.

$$\overline{\qquad\qquad\qquad\text{wh}\qquad}$$
IX$_3$ $_3$ASK$_1$ BUY IX$_1$ WHAT IX$_1$
'He asked me what I bought.'

1.2.3.1 Non-manual markers in content interrogatives

The main non-manual marker used in content interrogatives is furrowed eyebrow. Interrogative signs always occur with this non-manual marker (a), but it can extend over a bigger portion of the interrogative sentence (b).

$$\overline{\qquad\qquad\text{wh}\qquad}$$
a. A: IX$_2$ WORK WHERE
B: IX(loc)$_{[proximal]}$
'Where do you work?' 'Here.'

$$\overline{\qquad\qquad\text{wh}\qquad}$$
b. A: IX$_2$ WORK WHERE
B: IX(loc)$_{[proximal]}$
'Where do you work?' 'Here.'

1.2.3.2 List of wh-signs

LIS contains a full paradigm of interrogative signs. Below, we provide a non-exhaustive list of *wh*-signs.

$$\overline{\text{wh}}$$
a. WHAT

$$\overline{\text{wh}}$$
b. WHICH

$$\overline{\text{wh}}$$
c. WHO

$$\overline{\text{wh}}$$
d. WHY

$$\overline{\text{wh}}$$
e. WHEN(1)

$$\overline{\text{wh}}$$
f. WHEN(2)

$$\overline{\text{wh}}$$
g. WHERE

$$\overline{\text{wh}}$$
h. HOW(1)

$$\overline{\text{wh}}$$
i. HOW(2)

$$\overline{\text{wh}}$$
j. HOW_MANY

Another sign commonly found in LIS interrogatives is the one glossed Q$_{\text{artichoke}}$.

$Q_{artichoke}$

The meaning of $Q_{artichoke}$ can be recovered by looking at its role in the sentence. For example, $Q_{artichoke}$ corresponds to the animate subject in the following sentence, so it is naturally translated by 'who'.

$$\overline{\text{wh}}$$

A: ARRIVE $Q_{artichoke}$
B: GIANNI
'Who arrived?' 'Gianni.'

$Q_{artichoke}$ corresponds to the inanimate subject in the following sentence, so it is naturally translated by 'what'.

$$\overline{\text{wh}}$$

A: HAPPEN $Q_{artichoke}$
B: GIANNI CL(V): 'fall'
'What happened?' 'Gianni fell down.'

$Q_{artichoke}$ can play other grammatical roles, as in the following sentence.

$$\overline{\text{wh}}$$

CAR POSS$_2$ BREAK $Q_{artichoke}$
'Where did your car break?'

Another way to single out the specific meaning of $Q_{artichoke}$ is to look at the mouthing it is associated to. $Q_{artichoke}$ may be co-articulated with some vowels or consonants present in the corresponding Italian *wh*-word. For example, in the following sentence the mouthing reproducing the consonant [p] present in the corresponding Italian *wh*- phrase *perché* ('why') is produced simultaneously with $Q_{artichoke}$.

$$\overline{\text{wh}}$$
$$\overline{\text{[p]}}$$
IX$_2$ LEAVE Q$_{\text{artichoke}}$
'Why are you leaving?'

In the following sentence, the mouthing producing the sound [ku] present in the corresponding Italian *wh*-phrase *quando* ('when') is produced simultaneously with Q$_{\text{artichoke}}$.

$$\overline{\text{wh}}$$
$$\overline{\text{[ku]}}$$
IX$_2$ LEAVE Q$_{\text{artichoke}}$
'When are you leaving?'

1.2.3.3 Content interrogatives without *wh*-signs

Content interrogatives without *wh*-signs are possible in LIS. In the following sentence, the utterance is marked as interrogative by the presence of interrogative non-manual marking

$$\overline{\text{wh}}$$
A: TIME
B: AT_SEVEN
'What time is it?' 'Seven o'clock.'

Wh-signs are usually left out when the specific interrogative meaning can be recovered from the context.

1.2.3.4 Non-interrogative uses of *wh*-signs

Wh-signs can be used in non-interrogative contexts when they introduce temporal clauses [SYNTAX 3.5.2] locative clauses [SYNTAX 3.5.3], manner clauses [SYNTAX 3.5.4], and reason clauses [SYNTAX 3.5.5].

Notice the sign glossed as WHY is identical in its manual parameters to the sign glossed as REASON, which typically introduces reason clauses. However, the two signs differ in terms of absence/presence of specific non-manuals [SYNTAX 3.5.5].

1.2.3.5 Position of *wh*-signs

The *wh*-phrase (possibly formed only by the *wh*-sign) plays a grammatical function in the interrogative sentence, e.g. subject, direct object, indirect object, or adverbial modifier. No matter what grammatical function the *wh*-phrase plays, the dedicated position for *wh*-phrases is sentence-final. Therefore, even if the neutral order in a declarative sentence is Locative - Subject - Object - Verb as in (a), this order changes if a *wh*-sign is present, since the latter moves in sentence final position, no matter if it is the subject as in (b), the direct object as in (c), or the locative as in (d). In all these sentences, the verb is followed by an aspectual marker, DONE, which indicates that the event is concluded [LEXICON 3.3.2]; [MORPHOLOGY 3.3.2.3].

a. MILAN GIANNI HOUSE BUY DONE
'Gianni bought a house in Milan.'

$$\overline{\qquad\qquad\qquad\text{wh}\qquad\qquad}$$
b. A: MILAN HOUSE BUY DONE WHO
   B: GIANNI
'Who bought a house in Milan?' 'Gianni.'

$$\overline{\qquad\qquad\qquad\text{wh}\qquad}$$
c. A: MILAN GIANNI BUY DONE WHAT
   B: HOUSE
'What did Gianni buy in Milan?' 'A house.'

$$\overline{\qquad\qquad\qquad\text{wh}\qquad}$$
d. A: GIANNI HOUSE BUY DONE WHERE
   B: MILAN
'Where did Gianni buy a house?' 'In Milan.'

Also, in *wh*-interrogatives it is possible to repeat the subject pronoun. When this happens, the subject pronoun follows the *wh*-sign, so the latter is not strictu sensu sentence final.

$$\overline{\qquad\qquad\qquad\text{wh}\qquad\qquad}$$
IX$_2$ LIVE WHERE IX$_2$
'Where do you live?'

The dedicated position for the *wh*-phrase is sentence-final in embedded interrogatives as well.

<u>   wh   </u>

IX$_1$ WANT KNOW HOUSE BUY WHO

'I want to know who bought the house.'

1.2.3.6   Split between the *wh*-sign and its restriction

A *wh*-sign and its restriction (namely, the noun or the noun phrase that the *wh*-sign modifies) may split. When splitting takes place, the *wh*-sign sits in sentence-final position while its restriction stays in the position which corresponds to its grammatical function (the subject position in the following sentence).

<u>   wh   </u>

CHILD BOOK THREE STEAL WHICH

'Which child stole three books?'

(adapted from Cecchetto et al. 2009, 285)

1.2.3.7   Doubling of the *wh*-sign

In LIS, it is possible to find cases where a content interrogative contains two copies of the same *wh*-sign, as in the following example. The non-manual component can either occur with the *wh*-signs only, or optionally spread over the whole clause.

<u>   wh   wh   </u>

WHAT YESTERDAY BUY WHAT

'What did you buy yesterday?'

When doubling takes place, one *wh*-sign sits in sentence-initial position while the other one sits in the canonical sentence-final position. Sentences with doubling can be naturally used in certain contexts only if the question presupposes that there is someone or something that is the answer to this question. For example, the sentence above is natural if the signer is playing the role of a police officer who has arrested a suspect. During the interrogation, the suspect admits to have stolen something. In that context, the police officer can happily utter that sentence because it is given for granted that there is some object that has been stolen.

Another attested case of doubling takes place when Q$_{artichoke}$ combines with another *wh*-sign. This happens in certain colloquial registers. As the following examples show, the *wh*-sign and the Q$_{artichoke}$ preferably occur in sentence-final position with the order '*wh*-sign – Q$_{artichoke}$'.

$$\overline{\hspace{4cm}\text{wh}\hspace{2cm}}$$

a. ARRIVE WHO Q$_{\text{artichoke}}$
'Who arrives/has arrived?'

$$\overline{\hspace{4cm}\text{wh}\hspace{1.5cm}}$$

b. IX$_2$ DO WHAT Q$_{\text{artichoke}}$
'What are you doing/did you do?'

1.2.3.8 Multiple *wh*-signs in interrogatives

There are languages in which more *wh*-signs occur in a single interrogative when the addressee is asked to provide multiple pieces of information. One example from English is 'Where did you buy what?' whose answer would be a statement such as 'I bought the vegetables at the grocery store and the meat at the butcher.' The presence of this type of interrogatives has not been reported for LIS.

1.2.3.9 Interrogative particles

An interrogative particle is a sign whose *unique* function is to indicate that an utterance is an interrogative. As *wh*-signs in LIS have a specific meaning (What? When? Where? etc.), they do not qualify as interrogative particles. An exception might be Q$_{\text{artichoke}}$. As its meaning is underspecified in absence of a disambiguating mouthing, it might be analysed as an interrogative particle, especially if mouthing is analysed as external to the core meaning of this sign.

1.3 Imperatives

An imperative is a grammatical form that is specialized to elicit a behaviour from the addressee, so imperatives and commands are often taken to be synonymous. However, this identification is not fully correct, because sometimes non-imperative sentences can be used to express a command and, conversely, an imperative can be used for functions other than commands. Still, LIS has grammaticalised forms that are *typically* associated with commands and these forms are the topic of the present section.

1.3.1 Subtypes of imperatives

As previously mentioned, the imperative is not used only for commands. In LIS, the same form that is used to give orders is also used for other functions, which may not be obviously related. Typical uses of imperatives include at least: i) invitations, ii) suggestions/advice, iii) permission, iv) instructions, and v) recommendations.

The following sections will describe the different uses of imperatives in LIS.

1.3.1.1 Orders

The most obvious subtype of imperatives includes positive and negative orders. Orders express the will of the speaker for someone to do or not do something. An example of a sentence expressing an order in LIS is offered below.

$$\overline{\hspace{1.5cm}\text{fe}\hspace{1cm}}$$
EAT PALM_UP
'Eat!'

In this sentence, the verb EAT is immediately followed by a specific sign, glossed PALM_UP, illustrated in the following image.

PALM_UP

PALM_UP, which can be considered as a manual marker of the imperative, is optionally present in LIS positive imperative sentences and is produced with the palm facing upwards. It spatially agrees with the locus associated with the person the command is given to. When used to convey a command, PALM_UP is produced with a short straight tensed movement.

When the addressee is plural, PALM_UP is produced with an arc-movement. The following videos illustrate the contrast between the singular (a) and plural form (b) of PALM_UP.

$$\overline{\hspace{1cm}\text{re}}$$
a. EAT PALM_UP$_{sg}$
'You guy eat!'

$$\overline{\hspace{1cm}\text{re}}$$
b. EAT PALM_UP$_{pl}$
'You guys eat!'

A different sign (glossed MOVIMP) surfaces in LIS imperative sentences when the addressee must move to a different position to obey the command.

The MOVIMP sign, which is illustrated in the following picture, displays an arc movement towards a locus associated to the signer's left or right area in signing space (but for some signers MOVIMP displays an unspread 5 handshape if the addressee is plural).
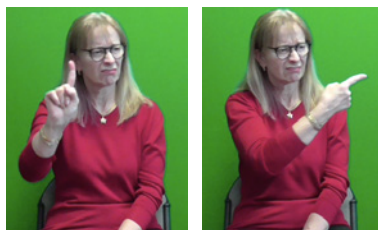
MOVIMP

The following is an imperative sentence with MOVIMP.

$$\overline{\hspace{1cm}\text{fe}}$$
SLEEP MOVIMP
'Go to sleep!'

As suggested by the translation, the addressee must move to a different position in order to obey the command.

MOVIMP occupies a postverbal position, just like PALM_UP. However, MOVIMP and PALM_UP can never co-occur in the same sentence. This suggests they realize the same function in LIS imperative sentences, although MOVIMP is more specialized, since it implies that the addressee must make a movement to obey the command.

The manual signs glossed as MOVIMP and PALM_UP are not the only elements marking the imperative in LIS. A crucial syntactic component of LIS imperative sentences is the presence of specific non-manuals, although what non-manual is produced in imperatives is subject to individual variation. In fact, non-manual marking is sufficient to indicate a command in absence of imperative manual signs, as in the following sentence, where the relevant non-manual marking is furrowed eyebrows (fe).

$$\overline{\qquad\qquad\text{fe}}$$
KNEEL_DOWN
'Kneel down!'

1.3.1.2 Invitations

Imperatives may also take the form of an invitation when someone is warmly encouraged to do something. As opposed to orders, invitations are expressions of politeness. An example of a LIS sentence expressing an invitation is provided below.

$$\overline{\qquad\qquad\quad\text{sq}}$$
$$\overline{\qquad\qquad\qquad\text{fe}}$$
$_3$TAKE$_2$ PALM_UP
'Take it!'

In this sentence, the signer is inviting his guest to have a piece of cake. When used to express an invitation, PALM_UP displays a longer arched relaxed movement. As for non-manual markers, invitations are accompanied by furrowed brows (fe) and squint eyes (sq), plus a head nod.

1.3.1.3 Suggestions/advice

Suggestions and advice also fall into the wider category of imperatives whose main goal is to advise the addressee on what is best for him/her to do in order to get a better result or to improve his/her situation. A suggestion/advice is illustrated below. In the video, the signer is inviting the addressee to buy powder milk. The video contains an imperative sentence ('buy the powder milk') followed by a declarative sentence ('it is convenient').

<u>hn</u>

<u>   fe   </u>

MILK IX POWDER BUY PALM_UP. CONVENIENT

'Buy the powder milk! It is convenient.'

In this sentence, PALM_UP agrees with the object. As for non-manual markers, suggestions are produced with furrowed brows (fe), plus a head nod.

1.3.1.4 Permissions

This subvariety of imperatives expresses an authorization, and may be a reply to a request, as in 'May I take your pen?'. 'Yes, take it!'. An example of a LIS sentence expressing permission is provided below.

<u>   lp </u>

<u>   fe </u>

PEN $_3$TAKE$_2$ PALM_UP

'Take the pen!'

Also in this sentence, PALM_UP agrees with the object and the addressee. As for non-manual markers, permissions are marked by furrowed brows (fe) and protruding lips (lp).

1.3.1.5 Instructions

Another subtype of imperative sentences is produced when the speaker gives instructions guiding his/her interlocutor on how to carry out a specific action such as building, cooking, reaching a destination, or any other performance. This is illustrated by the sentence below.

<u> lp </u>   <u>fe </u>

BOX TAPE CL(closed G): 'cut_tape' CL(flat open 4): 'open_box'

'Cut the box's tape and open it.'

In this sentence, imperative is indicated only by the non-manual marker furrowed brows (fe).

1.3.1.6 Recommendations

The imperative form may also be employed to express a recommendation to do or not to do something, for example if the speaker has a concern that a future event can damage the interlocutor, as in the following sentence.

---

	fe

CL(closed 5): 'drive_motorbike_fast' NOT CL(closed 5):
'drive_motorbike'

---

	fe	

CL(G): 'speed_raise' JUDGEMENT
'Don't go fast with your motorbike, drive at the right speed!'

In this sentence as well, the only marker of imperative is the non-manual marking, namely furrowed eyebrows (fe).

1.3.2 Imperative markers

In this section, we summarise what we already said about manual markers in the different types of imperatives.

1.3.2.1 Manual signs

As shown in the examples provided in the previous section, and as confirmed by the use of PALM_UP in the Imperative-and-Declarative (IaD) construction described in [SYNTAX 1.3.9], PALM_UP can occur with many different uses of the imperative. In this sense, it is not a pragmatic marker of command, but a grammatical marker of the imperative verb.

MOVIMP seems to have a more restricted distribution because it is used only when the addressee must move to a different position to obey a given command. Neither MOVIMP nor PALM_UP are obligatory in interrogative sentences, as non-manuals are sufficient to signal the interrogative force. For example, the following video contains two imperative sentences. The first one ('wake up!') contains no manual marker of imperative force while the second one ('go to eat!') contains MOVIMP.

$$\overline{\text{IX}_2 \quad \text{WAKE\_UP.} \quad \text{EAT MOVIMP}}^{\text{fe}}$$

'Wake up! Go to eat!'

1.3.2.2 Non-manual markers

We indicated specific non-manual markers for the various types of imperatives in [SYNTAX 1.3.1]. The spreading domain of non-manual markers refers to their extension over the manual signs they co-occur with. The non-manual markers for the imperative are not limited to the signs PALM_UP or MOVIMP (when it is present), but extend over the verb and its arguments. Although non-manual markers are subject to individual variations (possibly being influenced by emotive facial expressions that commonly occur with imperative sentences), a marked facial expression is always found in the imperative.

1.3.3 Imperatives and verb classes

To be developed.

1.3.4 Word order in imperatives

The main fact to be noticed about word order in imperatives is the position of PALM_UP or MOVIMP, which must immediately follow the verb. The non-marked SOV word order [SYNTAX 2.3] is preserved in LIS imperative sentences.

1.3.5 Attention callers

Since imperatives are means for eliciting a specific behaviour from the addressee, imperative clauses are frequently preceded or accompanied by the attention getters, as the one below.

Figure 1 An attention-caller sign The use of this sign is not limited to imperative constructions. Indeed, it is used anytime a signer needs to call for attention (e.g. before making an important announcement to a group of signers)

1.3.6 Negation in imperatives

When a negative order is expressed in LIS, there are some interesting differences with respect to positive imperatives. Both declarative and imperative clauses employ a manual sign for negation displaying the same handshape but differing in its movement realization. In negated declaratives, the manual sign (glossed NOT) produced with an extended index finger displays a short right-to-left repeated movement, as in (a), while in negative imperatives the manual sign (glossed NO) is produced with a single tensed and wide movement, as in (b).

> $\overline{\quad\quad\text{fe}}\ \overline{\text{hs}}$
> a. IX$_3$ EAT NOT
> 'He doesn't eat.'

> $\overline{\ \text{fe}}\ \overline{\text{hs}}$
> b. EAT NO
> 'Don't eat!'

1.3.6.1 Manual negation

Manual signs conveying the imperative, such as PALM_UP sign or the MOVIMP sign are incompatible with negation. The imperative force is thus deduced from the marked form of manual and non-manual negation.

1.3.6.2 Non-manual negation

Marked facial expression are obligatory in negative imperatives.

1.3.7 Subjects in imperatives

The section is dedicated to the subject in the imperative sentence.

1.3.7.1 Null and/or overt subjects

Null subjects seem to be the preferred option in LIS imperative sentences.

WAKE_UP HURRY_UP EAT MOVIMP
'Come on, wake up! Go eat!'

1.3.7.2 The person of the subject

Overt subjects can occur but, as opposed to declaratives, LIS imperative sentences only allow the overt production of second person subjects or of subjects including the addressee.

IX$_2$ WAKE_UP. EAT MOVIMP
'Wake up! Go to eat!'

1.3.7.3 Anaphoric properties
To be developed.

1.3.8 Embedding imperatives

The examples of imperatives described up to now are cases where the imperative sentence is a root clause. No case of embedded imperative has been described yet. However, this is an area which is under-investigated.

1.3.9 Special constructions: Imperative-and-Declarative (IaD)

Imperative-and-Declarative (IaD) is a very peculiar construction where an imperative is used in conjunction with a declarative clause, but this does not imply any order or even permission. This construction is illustrated by a sentence like 'Go on like this and you will fail'. In this example, the imperative does not convey any order or suggestion but, rather, is very similar to a conditional clause ('If you go on like this, you will fail.'). Since this use of the imperative is systematic across languages, the Imperative-and-Declarative construction has even been claimed to be a proper test for imperatives. LIS has the Imperative-and-Declarative construction, as shown in the example below which contains the imperative sign PALM_UP.

> <u>   hn</u>
> LAUGH PALM_UP IX$_1$ FAIL
> 'Keep laughing and I'll fail you!'

The sentence-initial clause of the sentence above is marked by specific non-manual marking roughly composed of repeated head nodding (hn), raised brows (re), and optionally tensed eyes ('te'). The non-manuals marking in this sentence, together with the sign PALM_UP, are responsible for the peculiar interpretation of the sentence, which is minimally different in meaning from the conditional sentence below, which, however, lacks the sign PALM_UP and is marked by the typical non-manuals of conditional clauses in LIS [SYNTAX 3.5.1].

> <u>   hn</u>
> <u>   re</u>
> LAUGH IX$_1$ FAIL
> 'If you laugh, I'll fail you.'

1.3.10   Exhortative constructions
To be developed.

1.4   Exclamatives

Exclamatives are grammatical forms that convey the information that something is surprising or noteworthy in some way: in an exclamative, all the content expressed by the sentence or part of it is unexpected. If the surprising information concerns the whole sentence,

we have a total exclamative, if the unexpected content is limited to a constituent of the sentence, we have a partial exclamative. An example of total exclamative in Italian is the following: *Oggi fa molto freddo!* ('Today it's very cold!'). In languages like Italian, the constituent that expresses the surprising information is introduced by a *wh*-element, as in the following partial exclamative: *Che bel vestito che hai comprato!* ('What a nice dress you bought!').

In LIS, we have found a distinction between total and partial exclamatives, based on the two different kinds of non-manual markers used when the two types of sentences are articulated: (a), an example of a total exclamative, is produced with raised eyebrows (re); (b), an example of a partial exclamative, is produced with furrowed eyebrows (fe). No specific manual sign introduces the two types of sentences.

$$\overline{\qquad\qquad\text{re}\qquad}$$
a. CAKE PE IX$_1$ ADORE

'I'm crazy about that cake!'

$$\overline{\quad\text{fe}\quad}$$
b. RAIN

'How much it rains!'

1.4.1 Total exclamatives

Total exclamatives, in LIS, are characterized by the presence of specific non-manual markers, namely raised eyebrows. These are the same non-manual markers that identify yes/no questions and, as in the case of questions, they spread over the whole exclamative sentence.

1.4.1.1 Non-manual marking

As illustrated above, the non-manual markers that characterize total exclamatives are similar to yes/no questions (re).

$$\overline{\qquad\qquad\text{re}\qquad}$$
GIANNI ARRIVE

'Gianni has arrived!'

1.4.1.2 Manual signs

No specific manual sign accompanies total exclamatives.

1.4.2 Partial exclamatives

In many spoken languages, partial exclamatives exhibit a *wh*-element occupying the same position it occupies in *wh*-interrogative sentences.

In LIS, a manual *wh*-morpheme has not been identified, as the different *wh*-signs do not share a common value for any formational parameter. What identifies *wh*-signs as a natural class is their grammatical function, their distribution in the clause and a specific non-manual marker, that is, furrowed eyebrows. Partial exclamative sentences in LIS are produced with furrowed eyebrows, as shown in the examples below.

	fe
MESS EMPHATIC_GESTURE	

'What a mess!'

For further details on *wh*-questions see [SYNTAX 1.1.2].

1.4.2.1 Non-manual marking

Partial exclamative sentences in LIS are produced with furrowed eyebrows spreading over the whole sentence.

1.4.2.2 Wh-signs

In LIS we cannot find *wh*-elements that characterize exclamative sentences, but there is an analogy with the *wh*-questions, due to the presence of the *wh*-non-manual markers also present in *wh*-questions, consisting in furrowed eyebrows.

1.4.2.3 Other structures

LIS exclamatives are often produced with the articulation of the sign VERY, illustrated in the picture below.

VERY

The following is an example of an exclamative sentence produced with the sign VERY.

<div align="right">re</div>

PALM_UP SURPRISE VERY BEAUTIFUL EXACTLY

'It is really a beautiful surprise!'

The sign VERY is not a marker exclusively used in exclamative sentences, though. Its status as a sign or as a gesture belonging to the Italian culture is still controversial. Our informants often use it in exclamative sentences but its position is not fixed, as shown by the examples below.

　　　　　fe
————————
a. COLD VERY

'How cold!'

　　　　　　　　　　fe
————————————————
b. VERY BACK IX$_1$ PAIN VERY

'What a bad backache!'

1.4.3 Negation in exclamatives

Differently from some spoken languages, including Italian, where it is possible to use a negative word in an exclamative sentence without negating the truth value of the sentence itself, in LIS exclamatives, this use of negation has not been identified.

1.5 Negatives

Every natural language has a way to express negation by using a multitude of markers, such as particles, negative words and affixes. There is an extensive variety in the number and in the use of negative markers, in their syntactic status and in their position in the clause. Moreover, negation varies in the way it interacts with different types of sentences.

We can make a distinction on the basis of scope, that is the actual parts of the sentence which are affected by negation. So, we can distinguish between sentential/clausal negation and constituent/local negation. We have a sentential/clausal negation when the negative marker takes scope over the whole clause (as in 'John didn't finish his paper'), whereas we have a constituent/local negation when the scope is confined to a particular constituent of the clause (as in 'John finished his paper not long ago'). Sentential negation in LIS uses manual markers and non-manual markers.

1.5.1 Manual marking of negation

In LIS, negative particles, *n*-words and irregular negatives are used to express negation [MORPHOLOGY 3.5]. An example of negative particles is shown below.

DANIELE EAT NOT
'Daniele does not eat.'

Below we can find an example of a *n*-word.

DANIELE EAT NOTHING
'Daniele does not eat anything.'

Finally, we report an example of an irregular negative.

DANIELE SPORT LIKE.NOT
'Daniele does not like sports.'

1.5.1.1 Manual negative elements

This section describes the manual negative elements LIS uses. A description of the regular and irregular markers of negation can also be found in [MORPHOLOGY 3.5.1.1].

1.5.1.1.1   Negative particles

LIS has several signs to express negation manually. The most common one is a sign glossed NOT and produced with the extended index finger (G handshape), the palm facing outward and a slight side-to-side movement of the hand. It appears as in the video below.

NOT

Another way to express negation is the sign NOT_YET. It has two different variants that are shown below as NOT_YET(1) (a) and NOT_YET(2) (b). The variant NOT_YET(1) is a symmetrical sign formed by the two hands with the same configuration (F configuration): the movement is similar to the one in NOT, rapid and left to right. On the other hand, the variant NOT_YET(2), which is mainly used in northern Italy, is articulated as an unspread 5 handshape moving from side to side close to the mouth.

   a. NOT_YET(1)
   'not yet'

   b. NOT_YET(2)
   'not yet'

The two variants do not differ semantically and their position in the sentence is the same. So, when we use the gloss NOT_YET, we refer to both the variants without specification.

    From a semantic point of view, NOT_YET differ significantly from NOT. Indeed, the sign NOT_YET is a presuppositional negative marker: it is used when there is an expectation that the action that is negated should take place in the future (the meaning is similar to the English negative marker 'not yet'). Both NOT (a) and NOT_YET (b) can be used as answer to yes/no questions, as in the examples below.

                          _____ y/n
  a. A: GIANNI PHONE_CALL DONE
     B: GIANNI PHONE_CALL NOT
'Did Gianni call?' 'Gianni has not called.'
(adapted from Geraci 2006a, 3)

$$\overline{\text{y/n}}$$

b. A: GIANNI PHONE_CALL DONE

   B: GIANNI PHONE_CALL NOT_YET

'Gianni has not called.' 'Gianni has not called yet.'

(adapted from Geraci 2006a, 4)

As for their distribution, both NOT (a) and NOT_YET (b) occupy the post-verbal position as shown in the two following examples.

a. GIANNI ARRIVE NOT

'Gianni has not arrived.'

(Geraci 2006a, 4)

b. GIANNI ARRIVE NOT_YET

'Gianni has not arrived yet.'

(Geraci 2006a, 4)

They also appear after the modal verbs, as in the example below.

GIANNI GO_OUT MUST NOT

'Gianni must not exit.'

Only one negative marker at a time can appear in a sentence.

Other two options used to express negation are the signs that we gloss NEG_O and NEG_S, for the oral articulations that accompany their manual realization. The sign NEG_O is a symmetrical sign formed by the two hands with F handshape. The two hands perform one rapid and strong movement, from the centre to the outside, as in the video below.

NEG_O

'Not anymore'

This negation has a more radical and incisive meaning than the sign NOT: it refers to something that should have happened but did not, as in the example below.

$$\overline{\text{neg}}$$

WEEK.LAST IX$_1$ MUST COME IX$_1$ NEG_O REASON SICK IX$_1$

'Last week I should have come, but I did not because I was sick.'

The other negation, glossed as NEG_S, has the same configuration of the sign NEG_O, but the movement is less tense and slower and it differs in the oral articulation, as can be seen from the following video.

<u> neg </u>
NEG_S

'Not at all'

This sign refers to an action that a person could not do at all, like in the example below.

<u> neg </u>
IX$_1$ CHILD LOOK_AFTER IX$_1$ WORK NEG_S

'I looked after the child, so I did not work at all.'

There is one more negation carrying the meaning of a prohibition. It is produced by articulating the two fingerspelled letters N and O corresponding to the oral articulation of the Italian word *no*. The sign N-O can be seen below.

N-O

Below we can see an example of its use.

IX$_1$ REPEAT++. IX$_1$ SAY N-O ANYMORE

'I repeated it many times. I said no, enough!'

1.5.1.1.2   Irregular negatives

Irregular negatives are a small group of predicates that incorporate negation in an opaque way. They have no obvious morphological relation to their positive counterpart and no distinct negative element can be identified [MORPHOLOGY 3.5.2]. In this case, we talk about *negative supplition*.

Examples of irregular negatives in LIS are LIKE.NOT (a) and WANT.NOT (b).

<u>   neg </u>
a. LIKE.NOT

'(To) dislike'

<u>   neg </u>
b. WANT.NOT

'(To) not want'

It should be noticed that the irregular negative WANT.NOT is a variant of the regular negative form WANT^NOT.

WANT^NOT
'Do not want'

We show below the use of LIKE.NOT (a), WANT.NOT (b), and in context.

            _____neg
a. MUSIC RAP IX$_1$ LIKE.NOT
'I don't like rap music.'

                    _____neg
b. PERSON$_3$ IX$_1$ $_1$COMMUNICATE$_3$ IX$_1$ WANT.NOT
'I don't want to communicate with that person.'

Other irregular verbs express impossibility. One is the sign that can be glossed as IMPOSSIBLE_PA_PA, for the oral articulation that takes place when the sign is performed.

          _____neg
IMPOSSIBLE_PA_PA
'(To) not be able to'

It refers to a situation when, after several attempts, the desired result cannot be achieved, like in the example below.

OUTSIDE WIND STRONG IX$_1$ CIGARETTE LIGHT_ CIGARETTE ++
                _____neg
IMPOSSIBLE_PA_PA
'Outside there was a strong wind, so I tried in vain to light a cigarette.'

Another sign has a similar meaning but even stronger and it can be glossed as IMPOSSIBLE_NO_WAY.

          _____neg
IMPOSSIBLE_NO_WAY
'(To) be absolutely unlikely to happen'

It indicates that there is no possibility at all to carry out an action or that a situation has no way out, as it can be seen in the example below.

$$\overline{\hspace{3cm}\text{neg}}$$

TODAY WORK CL(5): 'finish_work' LIMIT TODAY IX$_1$ IMPOSSIBLE_NO_
WAY
'There is no chance that I will finish my work by today.'

There is one more irregular negative predicate, that is the negative counterpart of the verb EXIST, expressing existence and possession. The verb EXIST.NOT can be seen below.

$$\overline{\hspace{1.5cm}\text{neg}}$$

EXIST.NOT
'(To) not have'
'There is not'

It is used to indicate the non-existence or the non-possession of something, like in the example below.

DAVIDE DOG EXIST.NOT
'Davide does not have a dog.'

It is important to note that regular negative predicates such as KNOW^NOT and CAN^NOT differ from the irregular forms presented in this section, in that they show a morphological relation to their positive counterpart (i.e. KNOW and CAN): in these cases, a negative morpheme is added to the lexical base of the verb [MORPHOLOGY 3.5.1].

1.5.1.1.3   Negative determiners and adverbials

In LIS, it is possible to express negation also with *n*-words, also called negative quantifiers. There are two *n*-words: NOBODY and NOTHING: their meaning is very similar to the one of the two corresponding English words. NOBODY is a two-handed sign, with the same hand-shape and orientation of the sign NOT, but it is performed with a single movement from the centre of the neutral space to the outside.

$$\overline{\hspace{1.5cm}\text{neg}}$$

NOBODY

NOTHING is very similar to the sign NOT_YET; it has the same config-uration and orientation, but a different movement: small circles are created with the two hands.

<u>   neg   </u>
NOTHING

Examples of sentences containing the signs NOBODY (a) and NOTHING (b) are shown below.

<u>   neg   </u>
a. CONTRACT$_a$ PUT_SIGNATURE$_a$ IX$_a$ NOBODY
'Nobody signed the contract.' (adapted from Geraci 2006a, 5)

<u>   neg   </u>
b. GIANNI PUT_SIGNATURE NOTHING
'Gianni signed nothing.' (adapted from Geraci 2006a, 5)

The presence of a *n*-word is sufficient to provide the sentence with a negative meaning.

Even if they are arguments of the verb (they can be the sentence subject or object), negative quantifiers do not occur in the canonical position devoted to verbal arguments. Their canonical position is postverbal (like negative particles). For example, the *n*-word NOBODY is the subject in the sentence CONTRACT PUT_SIGNATURE IX NOBODY reported above, but it does not appear in the canonical position of subjects (preverbal). The same holds for the sign NOTHING. In the sentence GIANNI PUT_SIGNATURE NOTHING reported above, a direct object naturally appears before the verb, but, being an *n*-word, the sign NOTHING must follow the verb.

The only case in which it is possible to find a *n*-word in a preverbal position is when the negative non-manual markers distribute to the right, also covering the other elements of the sentence, as in the following example.

<u>   hs   </u>
NOBODY CONTRACT PUT_SIGNATURE
'Nobody signed the contract.' (Geraci 2006a, 5)

NOBODY can be used as a determiner as well, in this case it selects a noun phrase, as we can see in the example below where NOBODY refers to the noun phrase CHILD.

<u>   neg   </u>
IX$_1$ CHILD++ SEE NOBODY
'I don't see any children.'

In LIS, there is a very common negative adverb, that is NEVER. It is a two-handed sign, that shares the same movement and orientation with the sign NOBODY, but a different handshape, I instead of G.

NEVER

The sign NEVER alone is able to convey a negative meaning to the sentence and its position is postverbal, as in the example below.

<div align="right">__neg</div>

GIANNI CONTRACT PUT_SIGNATURE NEVER
'Gianni never signed the contract.'

1.5.1.2 Syntax of negative clauses

Negative clauses have a specific structure that will be described in the following paragraphs.

1.5.1.2.1 Position of negative elements

In negative clauses, negation follows the verb. Manual negation is often accompanied by a non-manual negation: the head moves by turning to the right and to the left.

An aspect that should be deepened is the interaction between the aspectual marker DONE [SYNTAX 2.3.1.2] and the negative markers. The aspectual marker DONE is in a postverbal position. No negative element can co-occur with DONE. So, DONE is not acceptable in negative sentences.

As to sentences with modals, the negative elements are after the modals, as in the example below.

<div align="right">_____neg</div>

GIANNI CONTRACT PUT_SIGNATURE BE_ABLE^NOT
'Gianni cannot sign the contract.'
(adapted from Geraci 2006b, 102)

In LIS, the right periphery of the sentence (the area after the verb), can be very crowded: it can host negative elements, *wh*-signs, modals, and DONE. We saw that DONE is not compatible with negation and we described the interaction of negative elements and modals.

Wh-signs follow the verb, the aspectual markers and the modals [SYNTAX 2.3.2.1]. If negative elements are present, they follow the verb but precede *wh*-signs, as can be seen in the following example.

<div align="center">neg</div>

a. GIANNI PUT_SIGNATURE NOT_YET Q_{artichoke}
'What did Gianni not yet sign?'

<div align="center">neg</div>

b. SIGN NOTHING IX_{2pl} WHO
'Who of you has not signed anything?'

1.5.1.2.2 Doubling

In LIS, negation can never be doubled, like in standard English and unlike in Italian. Differently from negative concord that we will see in the following paragraph, in doubling, the same negative element is repeated/reduplicated within the negative clause: the two instances of negation are cancelled, giving rise to a positive reading. In LIS, it is not possible to have two negative markers or two *n*-words (either identical or different) in the same sentence. Negative markers, quantifiers and adverbs are able, by themselves, to convey negative force to the sentence.

1.5.1.2.3 Negative concord

Negative concord is a phenomenon whereby two negations that occur in a sentence are interpreted as a single negation. There are two types of negative concord possible in sign languages: i) negative concord between a non-manual and a manual component and ii) negative concord between two manual components.

In LIS, only the first type of negative concord is possible, while it is not possible to find two negative manual elements.

Negative non-manuals obligatory co-occur with negative manual components, as shown in the following example.

<div align="center">neg</div>

GIANNI CONTRACT PUT_SIGNATURE NOT
'Gianni did not sign the contract.'
(adapted from Geraci 2006b, 109)

1.5.2 Non-manual marking of negation

LIS shows different non-manual markings of negation, like head movements, facial expressions and body posture.

1.5.2.1 Head movements

In LIS, head tilt (reported as head nod) is used to mark affirmative responses to questions or for emphasis.

On the contrary, the movement of the head that rotates from right to left repeatedly characterizes negative clauses. Specific head movements (headshake) co-occur with all negative markers and *n*-words described above. Differently from other sign languages, in the variety of LIS considered here, the use of negative non-manual markers as the only signal for sentential negation is ungrammatical, but data collected for some studies show that the situation could be different in other parts of Italy.

Headshake only co-occurs with negative signs: it starts with the negative sign and can continue after the sign has been articulated. It generally does not spread over other signs of the sentence, as in the following examples.

$$\overline{\quad\text{hs}\quad}$$
a. PAOLO CONTRACT PUT_SIGNATURE NOT
'Paolo did not sign the contract.'
(Geraci 2006a, 5)

$$\overline{\quad\text{hs}\quad}$$
b. GIANNI CONTRACT PUT_SIGNATURE CAN NOT
'Gianni cannot sign the contract.' (Geraci 2006a, 5)

$$\overline{\quad\quad\text{hs}\quad}$$
c. CONTRACT PUT_SIGNATURE NOBODY
'Nobody signed the contract.' (Geraci 2006a, 5)

The only cases of wide spreading of negative non-manual markings are the ones in which *n*-words occur in preverbal position, like in the example below.

<u>   hs   </u>

NOBODY CONTRACT PUT_SIGNATURE
'Nobody signed the contract.'
(Geraci 2006a, 5)

So, spreading of negative non-manual markers is very rare and occurs when some manual elements are in a marked position.

This peculiar spreading of negative non-manual marking can be seen also in the use of another *n*-word: the sign glossed DICK.

DICK

It corresponds to an Italian vulgar word indicating the male genital organ, but it is also used to say 'nothing at all' in the low register of Italian. Like in Italian, in LIS the sign DICK can be used with the meaning of 'nothing' in negative clauses.

<u>   neg   </u>
a. GIANNI SEE DICK
'Gianni didn't see shit.'

b. GIANNI DICK SEE
'Gianni saw a penis.' (based on Geraci 2006b, 126)

The only lexical difference between the sign used to refer to the male genital organ (b) and the one used to negate the clause (a), is the presence of the negative non-manual marking (neg). The use of DICK as a negative marker may be influenced by Italian, but it is interesting to notice that it obeys the LIS rule concerning the position of negative elements (when DICK is an *n*-word, it must occur post-verbally as other negative quantifiers do) and that it is marked by the negative non-manual marking.

1.5.2.2 Facial expressions

Head movement is often carried out with particular facial expressions.

Facial expressions related to negation include frowning, eyebrows lowered, and mouth corners down.

1.5.2.3 Body posture
To be developed.

1.5.2.4 Spreading domain

As previously said, two possible spreading options of head movement can be observed: i) over the manual negative sign only and ii) over the whole sentence, but only in marked cases where the *n*-word is in preverbal position.

Information on Data and Consultants

The descriptions in these sections are based on the references below. The linguistic data illustrated as images and video clips have been checked through acceptability judgments and have been reproduced by Deaf native-signing consultants. The images and video clips in [SYNTAX 1.3] have been elicited for the research summarised in Donati et al. (2017). The remaining images and video clips have been collected with Deaf native-signing consultants.
The descriptions in [SYNTAX 1.4] are based on data collected by the author. The video clips exemplifying the linguistic data have been produced by native signers living in the north of Italy.

Authorship Information

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