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A Grammar of Italian Sign Language (LIS)

edited by
Chiara Branchini and Lara Mantovan

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Part V
Syntax

Syntax is the component of grammar responsible for the combination of simple items, be it words or signs, into phrases, clauses and sentences.

In this section, the reader will find a description of the different domains of syntactic structure and their internal organization in terms of order, agreement and other dependency phenomena.

We start introducing sentence types [SYNTAX 1], clause structure [SYNTAX 2], coordination and the different types of subordinated constructions [SYNTAX 3]. We close this part with a description of the internal structure of the noun phrase [SYNTAX 4] and adjectival phrase [SYNTAX 5].

4   The noun phrase

Summary   4.1 Determiners. – 4.2 Possessive phrases. – 4.3 Numerals. – 4.4 Quantifiers. – 4.5 Adjectives. – 4.6 Multiple noun phrase constituents.

The noun phrase is a syntactic domain revolving around a nominal head. A noun phrase can include the head noun (a noun or pronoun) alone or the head noun accompanied by other elements (nominal modifiers). The head noun can be modified by several elements: determiners [SYNTAX 4.1], possessives [SYNTAX 4.2], numerals [SYNTAX 4.3], quantifiers [SYNTAX 4.4], and adjectives [SYNTAX 4.5]. It can also be modified by a clause (see the section on relative clauses, [SYNTAX 3.4].

4.1   Determiners

Determiners are functional elements that modify the noun. Being functional, they constitute a closed class and lack descriptive content. The lexical properties of these elements are illustrated in [LEXICON 3.6].

In this section, we consider determiners as a category including articles [SYNTAX 4.1.1] and demonstratives [SYNTAX 4.1.2].

4.1.1 Articles

In their contexts of use in LIS, articles are optionally produced. Definite articles are realised as pointing signs with a relaxed position [LEXICON 3.6.1], whereas indefinite articles are articulatory similar to cardinal ONE [LEXICON 3.6.2].

It should be noted that articles are not independent items and cannot be used in isolation to answer questions. As shown in the examples in the next sections, both definite and indefinite articles must co-occur with a noun.

4.1.1.1 The position of the article

In this section, we observe the distribution of definite and indefinite articles in LIS. Note that both of them are optionally produced in their contexts of use [LEXICON 3.6.1]; [LEXICON 3.6.2].

When used, definite articles usually appear in postnominal position. In the example below, the article IX(def) follows the noun YOUNG.

> YOUNG$_a$ IX(def)$_a$ RUN QUICK
> 'The boy is running quickly.'

Note that noun and article are produced in the same area of the signing space, and hence show spatial agreement.

When another nominal modifier accompanies the head noun, such as an adjective (OLD in the example below), the definite article appears after it, at the end of the noun phrase.

> FURNITURE$_a$ OLD IX(def)$_a$ CHANGE NEED
> 'The old furniture must be replaced.'
> (adapted from Bertone 2007, 60)

A less common option is the reduplication of the article, for instance IX$_a$ MAN IX$_a$. In this construction, two co-indexed pointing signs are produced, one before and the other after the noun. These two elements can be functional equivalent, and hence produce a genuine case of reduplication, or they can carry out two different functions, and hence instantiate a case of demonstrative reinforcer construction (for more details on this construction see [SYNTAX 4.1.2.2]).

Indefinite articles in LIS usually occur before the noun. In the example below, the article ONE(indef) precedes the noun DEAF.

ONE(indef) DEAF IX$_1$ MEET
'I met a deaf guy.'

As for the postnominal position, judgments are not uniform. According to some signers, when the sign ONE appears after the noun, it functions as a cardinal numeral.

BOOK ONE $_2$CL(flat open 5): 'give_book'$_1$
'Give me one book.' (recreated from Bertone 2007, 146)

According to other signers, when the sign ONE is found in postnominal position and it is associated with tremoring motion, it functions as an indefinite determiner.

BOOK ONE(indef)$_{[tremoring]}$ $_2$GIVE$_1$
'Give me a book.'
(Bertone 2007, 146)

This particular articulation can also be used to express a free choice reading ('any book').

4.1.1.2 Simultaneous manual articulation

The fact of having two independent manual articulators allows signers to realise two different items simultaneously. So, in some cases, the noun and its modifiers (for example adjective or numeral) are articulated with the dominant hand and, at the same time, the article is produced with the non-dominant hand.

In the example below, noun and article are articulated simultaneously: specifically, the noun CHILD and the nominal modifier HAIR BLACK are expressed by the dominant hand, whereas the definite article IX(def) is simultaneously expressed by the non-dominant hand (see the discussion on pointer buoys in [PRAGMATICS 2.2.3].

```
          ____re____  ____sq rs: child
dom:   CHILD_a HAIR BLACK WALK      DAD GO
n-dom: IX_a------------------- WALK
```
'The kid with black hair left whining and went to his dad.'

4.1.1.3 Non-manual marking

Definite articles may be accompanied by special facial expressions conveying definiteness [PRAGMATICS 1.2]. They typically include raised eyebrows, chin up, contracted cheeks, and mouth slightly open. In some cases, squint eyes may also be produced.

Figure 1 Non-manuals marking definiteness

It has been observed that these non-manuals are not compulsory. Their use can vary across signers and across contexts. When produced, they highlight the fact that the referent has already been mentioned in the discourse. As for their distribution, these non-manuals can: i) be omitted, ii) co-occur with the definite article only, or iii) co-extend over the whole noun phrase.

Indefinite articles are usually accompanied by facial expressions conveying indefiniteness [PRAGMATICS 1.3], such as backward-tilted head and mouth-corners down.

Figure 2 Non-manuals marking indefiniteness

4.1.1.4 Articles expressed by non-manual marking only

In their contexts of use, both definite and indefinite articles are not obligatory in LIS. However, when they are omitted, they are replaced by obligatory non-manuals (the ones described in [SYNTAX 4.1.1.3]).

In the example below, the pointing sign IX is not produced and the noun MAN is accompanied by obligatory non-manuals marking definiteness (here labelled as 'def').

<u>def</u>
MAN UMBRELLA TAKE
'The man took the umbrella.'

The same pattern holds for indefinite articles. When the manual sign is not present, the noun must be accompanied by non-manuals marking indefiniteness (here labelled as 'indef').

<u> indef</u>
WOMAN CL(G): 'woman_come'
'A woman came to me suddenly.'

4.1.2 Demonstratives

Unlike articles, demonstratives are obligatorily produced in their contexts of use in LIS. Demonstratives are pointing signs directed toward a specific point in space and realised with a tense movement [LEXICON 3.6.1].

Demonstratives have a double usage: they can be combined with a noun, and hence function as nominal modifiers [LEXICON 3.6.1], but they can also be used as pronouns [LEXICON 3.7.1]. An example of demonstrative functioning as nominal modifier is shown in the discourse stretches below.

<u>   wh</u>
A: IX$_2$ BUY Q$_{artichoke}$
B: BOOK IX(dem)
'What did you buy?' 'That book.'

An example of demonstrative functioning as pronoun is shown in the discourse stretches below.

<u>   wh</u>
A: IX$_2$ BUY Q$_{artichoke}$
B: IX(dem)
'What did you buy?' 'That one.'

This last example demonstrates that demonstratives can be used in isolation to answer questions.

4.1.2.1 The position of the demonstrative

Demonstratives in LIS usually appear in postnominal position. In the example below, the deictic demonstrative ɪx(dem) follows the noun PHONE.

> PHONE ɪx(dem) WORLD MODIFY
> 'That mobile phone has changed the world.'

A less common option is the reduplication of the demonstrative. In this case, as exemplified below, one demonstrative is produced at the beginning of the noun phrase and the other at the end of it.

> ɪx(dem)$_a$ BOOK NEW TWO ɪx(dem)$_a$ POSS$_1$
> 'These two new books are mine.'
> (Bertone 2007, 85)

A similar construction is the demonstrative reinforcer construction [SYNTAX 4.1.2.2].

Another possibility is to articulate noun and demonstrative simultaneously: the former with the dominant hand and the latter with the non-dominant hand.

> dom: MAN GO_AWAY
> n-dom: ɪx(dem)
> 'That man is leaving.'

4.1.2.2 Demonstrative reinforcer construction

The demonstrative reinforcer construction combines three items: noun, demonstrative, and locative. The locative element acts as reinforcer and provides additional information on the exact location of the referent(s).

In the example below, two pointing signs are produced, one before and the other after the head noun (MAN). From an articulatory perspective, the two pointing signs do not look alike: the former is quickly produced, whereas the latter is characterised by a more marked articulation.

PIETRO IX(loc)_a MAN IX(dem)_a BE_FAMILIAR
'Pietro knows that man over there.'
(adapted from Bertone 2007, 157)

It has been observed that the two pointing signs carry out different linguistic functions: the prenominal one functions as locative (reinforcer), whereas the postnominal one functions as demonstrative. The different status of these two elements is confirmed by plural inflection. In this respect, demonstratives and locatives differ from each other in that the former can be pluralised, while the latter cannot. As shown in the example below, the postnominal pointing sign allows for pluralisation and therefore functions as demonstrative, whereas the prenominal pointing sign does not and therefore it functions as locative.

PIETRO IX(loc)_a MAN IX(dem)_{arc-a} BE_FAMILIAR
'Pietro knows those men over there.'

Alternatively, the locative item can follow the demonstrative (a) or be simultaneously articulated with the non-dominant hand (b).

a. PIETRO MAN IX(dem)_{arc-a} IX(loc)_a BE_FAMILIAR
'Pietro knows those men over there.'

b. dom: PIETRO MAN IX(dem)_{arc-a} BE_FAMILIAR
   n-dom: IX(loc)_a
'Pietro knows those men over there.'

The demonstrative reinforcer construction is compatible with the anaphoric demonstrative PE as well.

SUITCASE_a PE_a IX(loc)_a POSS₁
'That suitcase over there is mine.'

4.1.2.3 Non-manual marking

The non-manuals marking definiteness described for articles (raised eyebrows, chin up, contracted cheeks, and mouth slightly open, as discussed in [SYNTAX 4.1.1.3] are usually also found with demonstratives. This is because both classes of determiners are definite in nature.

If the direction of the eye-gaze (here labelled as 'eg') coincides with that of the demonstrative, the signer emphasises that the referent is physically present in the extra-linguistic context. In the exam-

ple below, the eye-gaze is pointed downward, in the same direction indicated by the demonstrative IX(dem). This alignment between eye-gaze and demonstrative suggests that the referent (PEN) is physically present in the scene of the interaction.

<u>   eg</u>
PEN IX(dem) NEED IX$_1$ 🖐
'I need this pen.'

Deictic demonstratives refer to someone or something present in the surrounding extra-linguistic context, which might be more or less distant from the signer. The proximal or distal specification is often signalled by non-manuals. For example, proximity can be marked by body posture and/or half-closed eyes, as in (a), while distality can be marked by eye opening and chin up, as in (b).

a. IX(dem)$_{[proximal]}$

b. IX(dem)$_{[distal]}$

4.1.2.4 Anaphoric usage

Anaphoric demonstratives are used to refer to already-mentioned referents. Therefore, they rely on the linguistic context. In LIS, the anaphoric demonstrative is usually expressed by the sign PE (for more details on this sign see [LEXICON 3.6.1]).

Like its deictic counterpart, the anaphoric demonstrative in LIS appears in postnominal position. In the example below, the sign PE is used to express anaphoric reference to an already-mentioned project and appears after the noun (PROJECT).

PROJECT$_a$ PE$_a$ IX$_1$ $_{3a}$GIVE$_1$_AUX PERSONAL_GROWTH
'That project boosted my personal growth.'

4.2 Possessive phrases

The possessive phrase is a syntactic construction involving two elements: a possessor (i.e. someone who possesses something) and a possessee (the possessed entity). A distinction that it is important to keep in mind is that between attributive (a) and predicative (b) possession. Examples in LIS of these two constructions are provided below.

a. MARIA CAR POSS$_3$ COMFORTABLE
'Maria's car is comfortable.'

b. CAR PE MARIA POSS$_3$
'This car is Maria's.'

Attributive possession is included within the noun phrase [SYNTAX 4], while predicative possession does not combine with a noun, but predicates something about it. This section is devoted to attributive possessive phrases only.

4.2.1 Ways of expressing the possessive relation in the noun phrase

A possessive relation in LIS can be expressed as follows: i) by means of attributive possessive pronouns, or ii) by juxtaposition of possessor and possessee.

4.2.1.1 Attributive possessive pronouns

The possessive pronouns that occur within attributive possessive phrases in LIS can be realised with two different handshapes: POSS(G) and POSS(5) [LEXICON 3.7.3]. In both cases, the sign is directional, meaning that it moves toward the locus in space associated with the possessor. The two types of possessives differ in terms of use as well. When

the possessor is animate (e.g. WOMAN, CHILD, DOG), the preferred option is POSS(G), be it a case of alienable (a) or inalienable possession (b).

a. PIETRO CAR POSS(G)$_3$ FUNCTION WELL

'Pietro's car works well.'

b. PIETRO MOTHER POSS(G)$_3$ SICK

'Pietro's mother is sick.'

On the other hand, when the possessor is inanimate (e.g. ITALY, COMPANY, SCHOOL), signers typically use POSS(5), as shown below.

ITALY FOOD POSS(5)$_3$ DELICIOUS

'Italian food is delicious.'

4.2.1.2 Possessive markers

To be developed.

4.2.1.3 Juxtaposition

In some cases, it is possible to omit the possessive pronouns. As a result, the attributive possession construction consists in the juxtaposition of possessor and possessee.

For example, 'Maria's car' can be expressed by combining the signs MARIA and CAR in sequence.

MARIA CAR BREAK

'Maria's car is broken.'

Apparently, the presence or absence of the possessive pronoun does not cause a change in meaning.

The strategy of juxtaposition is also used with inalienable possession, such as body parts (GIRAFFE NECK, 'giraffe's neck') and kinship relations (PIETRO MOTHER, 'Pietro's mother').

4.2.2 The position of the possessive pronoun

Possessive pronouns contained in possessive phrases in LIS are typically produced in postnominal position, i.e. after the possessee. In the example below, POSS$_3$ follows the sign CAR, that is the possessed noun.

CAR POSS$_3$ COMFORTABLE
'His/her car is comfortable.'

If the possessor is expressed by a noun (e.g. MARIA, PRESIDENT, CAT), the possessive construction typically surfaces in the following order: possessor (MARIA), possessee (CAR), possessive pronoun (POSS$_3$).

MARIA CAR POSS$_3$ COMFORTABLE
'Maria's car is comfortable.'

4.2.3 Agreement with the possessor

Possessive pronouns show manual agreement with the possessor. During their production, they are directed toward the locus in space associated with the referent functioning as possessor. The screenshots below show the spatial agreement between possessor and possessive pronoun. As shown by the indexes associated with the glosses, the two signs are co-referential.

PIETRO$_a$ POSS$_{3a}$
'Pietro's'

Note that such manual agreement is visible when the possessor is realised by a sign articulated in neutral space. If the possessor is represented by a body-anchored sign, such as MARIA below, spatial agreement does not occur.

MARIA   POSS₃
'Maria's'

In this case, the possessive pronoun shows spatial agreement with an arbitrary locus in space associated with the body-anchored sign.

4.2.4 Agreement with the possessed
To be developed.

4.2.5 Possessive phrases with the possessed elided

In particular discourse contexts, the possessee might represent shared knowledge. In these cases, LIS allows the possibility to omit the possessee. This is illustrated in the two examples below, in which the possessee CAR is omitted since it can be retrieved from the context.

a. MARIA POSS₃ COMFORTABLE
'Maria's is comfortable.' (talking about cars)

b. POSS₃ COMFORTABLE
'His/hers is comfortable.' (talking about cars)

It is interesting to note that when the possessee is absent, the signer might help the interlocutor retrieve it through specific non-manual cues: i) squint eyes, which signal that the information is known by the addressee, as in (a) above, and ii) eye gaze, which indicates that the possessee is present in the extralinguistic context, as in (b) above.

4.3 Numerals

Numerals are nominal modifiers used to indicate the number of entities that are referred to. In LIS, there are three different types of numerals: cardinal, ordinal, and distributive numerals [LEXICON 3.10.1]. This section discusses the distribution of numerals within the nominal domain, with a special focus on cardinals, the most studied numeral class.

4.3.1 The position of the numeral

The distribution of cardinals in the LIS nominal domain appears quite flexible because they can be found both in prenominal and postnominal position. For example, the cardinal THREE can appear before the noun CAKE, as in (a), or after it, as in (b).

a. MARIA BRING THREE CAKE
'Maria brought three cakes.'

b. IX MARIA BRING CAKE THREE. SEE IX(loc)
'Maria brought three cakes, here they are.'

In some cases, the different positions of the cardinal can convey different interpretations [SYNTAX 4.3.3].

A less common pattern involves the reduplication of the cardinal, before and after the noun, as in the example below.

THREE CAKE THREE
'Three cakes'

4.3.2 Floating numerals

A floating numeral is a numeral that does not appear in its canonical position since it is not close to the noun it modifies. In other words, there is a split between the noun and the numeral. This syntactic construction is attested in LIS.

To illustrate, consider the noun phrase BOOK THREE. The separation between these two elements can be observed in a sentence with topicalisation [PRAGMATICS 4.2], namely a sentence in which a topical constituent accompanied by marked non-manuals is preposed to a sentence-initial position. As shown in the example below, the noun (BOOK)

is topicalised at the beginning of the sentence and the related cardinal (THREE) is stranded in a non-adjacent position, after the verb.

    <u> top </u>
BOOK IX$_1$ WANT THREE
'I want three books.'

If the noun phrase also includes an adjective, this accompanies the topicalised noun, rather than the stranded cardinal. The example below shows the distribution of the adjective RED and the cardinal THREE with respect to the noun to which they both refer.

    <u>   top   </u>
BOOK RED IX$_1$ WANT THREE
'I want three red books.'

4.3.3 Definite and indefinite reading

The distribution of cardinals in LIS is influenced by information structure [PRAGMATICS 4.2]. In that respect, it is important to distinguish two distinct cases: i) first-mentioned referents, namely entities that are introduced for the first time into the discourse and constitute new-discourse information and ii) already-mentioned referents, namely entities that have already been mentioned in the discourse and constitute old-discourse information. The noun phrases associated with first-mentioned referents receive an indefinite interpretation, whereas the noun phrases associated with already-mentioned referents receive a definite interpretation.

For LIS, it has been observed that when a cardinal is included in an indefinite nominal expression, it can appear either before or after the noun. When it occurs in a definite nominal expression, it must appear after the noun.

Therefore, if a signer is introducing new referents in the discourse, the cardinal can appear either before or after the noun. In the example below, the first-mentioned referents are two children: both prenominal cardinal (a) and postnominal cardinal (b) are acceptable in this context.

a. TWO   CHILD
'Two children' (indefinite reading)
(recreated from Mantovan 2017, 173-4)

b. CHILD   TWO
'Two children' (indefinite reading)
(recreated from Mantovan 2017, 173-4)

On the contrary, if a signer is talking about already-mentioned refer-
ents, the cardinal is obligatorily postnominal. Below we can see that
when the two children are mentioned again in the discourse, they re-
ceive a definite reading, which is conveyed through the articulation
of the cardinal TWO after the noun CHILD.

CHILD   TWO   CL(flat closed 5): 'be_at'
'The two children' (definite reading)
(recreated from Mantovan 2017, 173-4)

As the example above shows, the sequence noun + cardinal conveying a definite reading is compatible with the presence of a whole-entity classifier, which defines the position in space of the already-mentioned referents.

Another difference between the two semantic interpretations is represented by non-manuals. As we can see in the examples above, cardinals associated with an indefinite reading are usually articulated with backward-tilted head and raised eyebrows, whereas those associated with a definite reading are usually articulated with squint eyes, lowered eyebrows, and chin bent downward.

4.3.4 Numeral incorporation

In some cases, cardinal and noun are not conveyed through two distinct lexical signs, rather they come together to form a single sign. This phenomenon is known as numeral incorporation [LEXICON 3.10.1.1].

Numeral handshapes (usually from 1 to 5, in some cases from 1 to 10) are combined with movement, location, and orientation of a root. The possible roots, namely signs that can be modified to accommodate a numeral handshape, are nouns [LEXICON 3.1], pronouns [LEXICON 3.7], and classifiers [MORPHOLOGY 5]. Three illustrative examples are provided below: the noun YEAR (a), the first-person plural pronoun IX$_{1pl}$ (b), and the whole-entity classifier for upright person (c).

a. YEAR^FOUR
'Four years'

b. IX$_{1pl}$^FOUR
'The four of us'

c. CL(4): 'come'
'Four people approaching'

4.3.5 Measure phrases

A Measure Phrase is a construction including a measure noun, namely a noun referring to time, capacity, weight, length, temperature, or currency.

In LIS, when cardinals are included in Measure Phrases, they show a special distributional pattern in that they always occur prenominally. Therefore, they always appear before the measure noun. In the following examples, cardinal THREE precedes METRE, cardinal TWO precedes KILOGRAMME, and cardinal TWO^HUNDRED THOUSAND precedes TIME.

a. THREE   METRE
'Three metres'

b. TWO   KILOGRAMME
'Two kilogrammes'
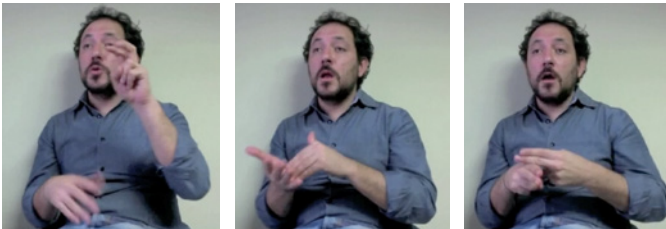
c. TWO^HUNDRED   THOUSAND   TIME
'Two hundred thousand times'
(based on Mantovan 2017, 170)

4.4 Quantifiers

While numerals specify exact numbers [LEXICON 3.10.1], quantifiers indicate the non-numeric amount of entities that are referred to [LEXICON 3.10.2]. This section discusses the distribution of quantifiers within the nominal domain.

4.4.1 The position of the quantifier

Although some variability can be found, the most frequent position for quantifiers in LIS is after the noun. Below, we can see some examples showing the postnominal distribution of these nominal modifiers: the universal quantifier ALL (a), the distributive quantifier EACH (b), the existential quantifier MANY (c), and the negative quantifier NOBODY (d) follow the noun they quantify.

a. PERSON++ ALL ORIGIN SICILY
'All the people come from Sicily.'

b. STUDENT EACH VIDEO RECEIVE DONE
'Each student received the video.'

      <u>   neg</u>
c. TODAY STUDENT MANY COME NOT
'Today lots of students did not come.'

      <u>   neg</u>
d. EXAM PASS STUDENT NOBODY
'No student passed the exam.'

In contrast to the other quantifiers, there is a preference for producing the negative quantifier NOBODY together with the modified noun in sentence-final position.

If a quantifier co-occurs with other nominal modifiers, such as adjectives and possessives, it tends to appear at the end of the nominal expression. In the examples below, we can see that the quantifier ALL(unspread 5), a variant of ALL(G) [LEXICON 3.10.2], follows the noun and the possessive in (a) and follows the noun and the adjective in (b).

a. COMPUTER POSS$_1$ ALL(unspread 5) BREAK
'All my computers are broken.'

      <u>   neg</u>
b. PEN RED ALL(unspread 5) FUNCTION NOT
'All the red pens do not work.'

4.4.2 Floating quantifiers

Quantifiers do not necessarily appear close to the noun they modify. Sometimes they are separated from the noun phrase they belong to: when this happens, they are called 'floating quantifiers'. This syntactic construction is attested in LIS.

Let us consider the nominal expression STUDENT ALL. In its canonical position, the quantifier ALL occurs close to the noun STUDENT, in postnominal position.

> STUDENT ALL EXAM PASS BE_ABLE
> 'All the students can pass the exam.'

In related sentences, the quantifier ALL can be floated to three different discontinuous positions: it can appear between the object and the lexical verb (a), between the lexical verb and the modal (b), and after the modal in sentence-final position (c).

> a. STUDENT EXAM ALL PASS BE_ABLE

> b. STUDENT EXAM PASS ALL BE_ABLE

> c. STUDENT EXAM PASS BE_ABLE ALL

Interestingly, there are minimal pair sentences that have different nuances of meaning according to the syntactic status of the quantifier. For example, consider the two sentences below.

>   top
> a. FRIEND POSS$_1$ ALL DEAF
> 'All my friends are deaf.'
> (recreated from Brunelli 2011, 54)

>   top
> b. FRIEND POSS$_1$ ALL DEAF
> 'My friends are all deaf.'
> (recreated from Brunelli 2011, 54)

The quantifier ALL appears in its canonical position within the nominal expression in (a), while it falls outside the noun phrase and hence behaves as floating quantifier in (b). A close look at the non-manuals used in the two sentences helps detect this difference: when used as regular quantifier, ALL falls within the scope of the non-manuals

marking the noun phrase (a); when used as floating quantifier, ALL is not accompanied by such non-manuals and it is separated from the noun phrase by an intonational break (b).

4.5 Adjectives

An adjective occurring within a noun phrase is an attributive adjective [LEXICON 3.4.1]. This means that it functions as an attribute of the noun and modifies it.

Adjectival modification can be expressed in different ways: i) lexically, e.g. the sign NEW in (a), ii) with a classifier, e.g. SASS(F): 'round_long' in (b), and iii) non-manually, e.g. open mouth (om) co-occurring with a noun expresses the concept of 'big', 'large' in (c). These three options are illustrated below.

a. CAR   NEW
'New car'

b. DRINKING_GLASS SASS(F): 'round_long'
'Flute glass'

<u>   om</u>
c. BRIDGE
'Big/long bridge'

For the sake of simplicity, in this section we especially focus on the distribution of independent lexical adjectives like NEW in (a) above.

Lexical adjectives can be articulated on the signer's body (a) or in the neutral space (b) [LEXICON 3.4.1].

a. BEAUTIFUL

b. BIG

The distinction between body-anchored and non-body-anchored adjectives is relevant in terms of agreement. Agreement between noun and adjective is usually reflected by the fact that these two signs are articulated in the same location in the neutral space. In most cases, overt noun-adjective agreement is not compulsory, hence both body-anchored and non-body-anchored adjectives can maintain their location. However, in

marked cases and coordination between two nominal expressions, the two adjectival classes behave differently. On the one hand, non-body-anchored adjectives (like BIG) must shift from a default location to a specific point in the neutral space, the one in which the noun is localised.

<u>   bl-left   bl-right</u>

HOUSE$_a$ NEW$_a$ HOUSE$_b$ BIG$_b$ AVAILABLE ANYMORE

'The big house and the new house are no longer available.'

On the other hand, body-anchored adjectives (like BEAUTIFUL), which cannot modify their place of articulation, must be accompanied by a body lean and/or head tilt directed toward the location of the noun.

<u>   ht-left   ht-right</u>
<u>   bl-left   bl-right</u>

PAINTING$_a$ BEAUTIFUL PAINTING$_b$ UGLY SELL DONE

'The beautiful painting and the ugly painting were sold.'

From the semantic point of view, there are different classes of adjectives. The most common ones are those conveying: quality, size, shape, colour, and provenance. In some cases, the semantic category of adjectives has an influence on their distribution with respect to the noun and/or other adjectives [SYNTAX 4.5.4]. This section is intended to provide information about the distribution of adjectives with respect to the noun [SYNTAX 4.5.1]; [SYNTAX 4.5.2]; [SYNTAX 4.5.3] and other adjectives [SYNTAX 4.5.4].

4.5.1 Prenominal vs. postnominal adjectives

Considering the distribution of an attributive adjective with respect to the noun it modifies, the most frequent pattern in LIS is: noun + adjective. This distribution holds for provenance, colour, shape, size, and quality adjectives, as shown in the examples below. The provenance adjective GERMAN (a), the colour adjective RED (b), the shape adjective ROUNd (c), the size adjective BIG (d), and the quality adjective BEAUTIFUL (e) follow the noun they modify.

a. WOMAN GERMAN IX(dem) IX$_1$ COMMUNICATE IMPOSSIBLE

'It is impossible for me to talk with that German woman.'

b. BOOK RED COST SASS(flat closed L): 'little'

'The red book is cheap.'

c. CANTEEN TABLE ROUND EXIST

'In the canteen, there is a round table.'

d. IX$_1$ DREAM HOUSE BIG

'I dream of a big house.'

e. TRAVEL AMERICA IX(loc) EXPERIENCE BEAUTIFUL

'My travel to the States was a beautiful experience.'

Other types of adjectives, such as OTHER, NEXT, and LAST, show the same preference for a postnominal distribution.

IX$_1$ WAIT SUMMER NEXT

'I am looking forward to the next summer.'

Although they do not constitute the most frequent pattern, some cases of prenominal adjectives (adjective + noun) are occasionally observed. They are almost exclusively quality adjectives. Here we provide an example with BEAUTIFUL.

TRAVEL AMERICA IX(loc) BEAUTIFUL EXPERIENCE

'My travel to the States was a beautiful experience.'

Sometimes, the prenominal distribution in LIS might be reminiscent of Italian word order. For example, the Italian adjective *ex* is always prenominal (Ita. *la mia ex fidanzata*, 'my ex girlfriend'). As shown below, the same distribution is found with the sign EX in LIS.

EX GIRLFRIEND CITY MOVE

'My ex-girlfriend moved to another city.'

4.5.2 Symmetric adjectives

As mentioned before, some quality adjectives can either precede or follow the nominal head (BEAUTIFUL EXPERIENCE or EXPERIENCE BEAUTIFUL). According to our informants, there is no significant difference in meaning between these two distributional patterns.

4.5.3 Reduplicated adjectives

In signing discourse, a lexical adjective might occasionally be reduplicated, being articulated both prenominally, and postnominally. This is exemplified below with the adjective OTHER.

> MUST OTHER JOB OTHER
> 'I had to find another job.' (Mantovan 2017, 118)

Notice that reduplication of adjectives does not induce any difference in meaning.

4.5.4 Ordering restrictions among adjectives

Sometimes, two or more attributive adjectives co-occur within the same noun phrase, establishing a complex nominal expression. The relative order of multiple adjectives in LIS appears to be sensitive to the semantic class they belong to. For the sake of simplicity, we take into consideration the distribution of the following semantic classes of independent lexical adjectives: provenance, colour, size, and quality.

When a provenance adjective and a colour adjective co-occur, the most common relative order is: provenance + colour (for example, CHINA RED).

> VASE CHINA RED
> 'Red Chinese vase
> (Bertone 2009, 17)

It should be noted that some signers prefer to express provenance with a possessive phrase (CHINA POSS, for more details on this construction see[SYNTAX 4.2], rather than an independent adjective (CHINA). In this case, the sign order tends to be reversed: the colour adjective precedes the possessive construction expressing provenance.

VASE RED CHINA POSS₃
'Red Chinese vase'

When a size adjective and a colour adjective co-occur, the most common relative order is: colour + size (for example, RED BIG).

VASE RED BIG
'Big red vase' (recreated from Bertone 2007, 78)

When a size adjective and a quality adjective co-occur, the most common relative order is: size + quality (for example, BIG OLD).

VASE BIG OLD
'Old big vase' (recreated from Bertone 2007, 78)

To sum up, the unmarked order of LIS attributive adjectives is: (noun +) provenance + colour + size + quality.

4.6 Multiple noun phrase constituents

Nominal expressions have the potential to host several nominal modifiers. When different types of modifiers co-occur in LIS, their distribution can be quite flexible, but it is never random.

This section illustrates the most frequent sign order patterns observed in complex nominal expressions including multiple modifiers, such as determiners [LEXICON 3.6], cardinal numerals [LEXICON 3.10.1.1], and attributive adjectives [LEXICON 3.4.1].

4.6.1 Prenominal modifiers

As reported in the previous sections, most nominal modifiers in LIS preferably occur postnominally. However, some of them can be produced before the noun. This is the case of: i) some quality adjectives [SYNTAX 4.5.1], ii) the reinforcer element in the demonstrative reinforcer construction

[SYNTAX 4.1.2.2], and iii) some cardinal numerals [SYNTAX 4.3.3]. For the sake of comparability, the glosses of the relevant examples are repeated below: (a) shows a prenominal adjective (BEAUTIFUL), (b) a prenominal reinforcer element (IX), and (c) a prenominal cardinal (TWELVE).

a. TRAVEL AMERICA IX(loc) BEAUTIFUL EXPERIENCE
'My travel to the States was a beautiful experience.'

b. PETER IX(loc)$_a$ MAN IX(dem)$_a$ BE_FAMILIAR
'Peter knows that man over there.'

c. MARIA BRING THREE CAKE
'Maria brought three cakes.'

In the example below, we show an indefinite complex nominal expression containing a prenominal cardinal (THREE). The sign order is cardinal + noun + adjective.

> <u>om</u>
> IX$_1$ SEE THREE DOG BLACK
> 'I suddenly saw three black dogs.'

4.6.2 Postnominal modifiers

LIS shows a preference for postnominal modifiers. In this section, we observe how multiple postnominal modifiers co-occurring in the same nominal expression are distributed.

Considering indefinite nominal expressions, there are two unmarked orders: noun + adjective + cardinal, as shown in (a), and noun + cardinal + adjective, as shown in (b).

> <u>om</u>
> a. IX$_1$ SEE DOG BLACK THREE
> 'I suddenly saw three black dogs.'

> <u>om</u>
> b. IX$_1$ SEE DOG THREE BLACK BEAUTIFUL
> 'I suddenly saw three beautiful black dogs.'

As for definite nominal expressions, there are two unmarked orders: noun + adjective + cardinal + demonstrative, as shown in (a), and noun + cardinal + adjective + demonstrative, as shown in (b).

a. CAT RED THREE IX(dem)$_{arc}$ POSS$_3$
'These three red cats are his.'

b. CAT THREE RED IX(dem)$_{arc}$ POSS$_3$
'These three red cats are his.'

To summarise, in complex nominal expressions, the relative order between adjectives and cardinals seems quite flexible. On the other hand, demonstratives tend to appear in the most peripheral 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.

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References

Bertone, C. (2007). *La Struttura del Sintagma Determinante nella LIS* [PhD dissertation]. Venezia: Università Ca' Foscari Venezia. (63-74) [4.5], (83-6) [4.6], (143-63) [4.1]

Bertone, C. (2009). "The Syntax of Noun Modification in LIS". *Working Papers in Linguistics*, 19, 7-28. [4.5]

Bertone, C. (2011). *Fondamenti di grammatica della LIS*. Milano: Franco Angeli. (116-26) [4.1], (133-48) [4.5]

Brunelli, M. (2011). *Antisymmetry and Sign Languages: A Comparison Between NGT and LIS*. Utrecht: LOT. (52-6) [4.4], (56-9) [4.1], (59-62) [4.3], [4.5]

Mantovan, L.; Geraci, C.; Cardinaletti, A. (2019). "On the Cardinal System in Italian Sign Language (LIS)". *Journal of Linguistics*, 55(4), 795-829. [4.3]

Mantovan, L.; Geraci, C. (2015). "The Syntax of Cardinal Numerals in Italian Sign Language (LIS)". Bui, T.; Özyıldız, D. (eds), *NELS 45: Proceedings of the Forty-Fifth Annual Meeting of the North East Linguistic Society*, vol. 2. Amherst (MA): GLSA, 155-64. [4.3]

Mantovan, L. (2017). *Nominal Modification in Italian Sign Language (LIS)*. Berlin: De Gruyter Mouton. [4.2], [4.3], [4.6]

Mazzoni, L. (2008). *Classificatori e impersonamento nella lingua dei segni italiana*. Pisa: Edizioni PLUS, Pisa University Press. (159-160) [4.3.4]

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A Grammar of Italian Sign Language (LIS) is a comprehensive presentation of the grammatical properties of LIS. It has been conceived as a tool for students, teachers, interpreters, the Deaf community, researchers, linguists and whoever is interested in the study of LIS. It is one output of the Horizon 2020 SIGN-HUB project. It is composed of six Parts: Part 1 devoted to the social and historical background in which the language has developed, and five Parts covering the main properties of Phonology, Lexicon, Morphology, Syntax and Pragmatics. Thanks to the electronic format of the grammar, text and videos are highly interconnected and are designed to fit the description of a visual language.

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