

4 Nominal inflection

Summary 4.1 Number. – 4.2 Localisation and distribution.

The present chapter explores the morphological processes that LIS nouns can undergo to convey information of number and localisation/distribution, without employing numerals, quantifiers or classifiers. These inflectional processes can be realised both manually and non-manually.

Nouns in LIS can be divided into two classes: nouns articulated in the signing space belong to the class of inflectional nouns; nouns articulated close or on the signer's body are comprised into the class of invariable nouns [LEXICON 3.1]. The possibility of displaying inflectional processes depends on both phonological and semantic constraints for both the classes of nouns. When inflectional processes are not allowed, LIS employs other strategies involving numerals (a) [LEXICON 3.10.1], quantifiers (b) [LEXICON 3.10.2] or classifiers (c) [MORPHOLOGY 5]. We provide an example for each strategy here for ease of clarification.

a. BOOK TWELVE CL(unspread 5): 'take'
'I take twelve books.'



b. MAN MANY
'Many men'



c. TABLE BOOK CL(unspread 5): 'book_be_located'+ +
'There are several books on the table.'



Notice that besides these strategies, plurality can be conveyed through inflection of the verb sign [MORPHOLOGY 3.1.1.2.2].

4.1 Number

In these sections, we see the morphological modifications applying to LIS nominal signs to convey nominal plural marking. In general, manual inflectional processes are displayed by nouns articulated in the signing space, whereas invariable nouns can convey plurality by means of numerals, quantifiers or classifiers, or through specific non-manual markers occurring simultaneously to their articulation. However, we will see that there are some exceptions affecting some nouns of both the inflectional and invariable class.

4.1.1 Manual marking

Manual marking refers to the morphological processes modifying the articulation of the nominal signs in order to convey plurality. In general, morphological modifications are displayed by signs belonging to the class of inflectional nouns. In LIS we find four main processes, which are described and exemplified below.

- i) reduplication with dislocation: the movement of the sign for the noun is repeated and displaced within the signing space. This is exemplified by the sign HOUSE, whose citation form is shown in (a). To convey plurality, the sign is reduplicated and dislocated within the signing space (b).

a. HOUSE



b. HOUSE++_{ipsi}
'Houses'



The same holds for one-handed signs such as CHILD (a), whose plural form derived through reduplication with dislocation is provided in (b).

a. CHILD



b. CHILD++_{ipsi}
'Children' (based on Bertone 2011, 99)



- ii) simultaneous reduplication by the non-dominant hand: one-handed signs can be articulated as two-handed signs in order to convey plurality. This is illustrated with the sign PERSON (a), which conveys numerosity by being articulated as a two-handed sign (b).

a. PERSON



b. dom: PERSON++
n-dom: PERSON++
'People'



Interestingly, the sign CHILD can convey plurality by means of this morphological process as well, as illustrated below.

dom: CHILD++
n-dom: CHILD++
'Children'



(based on Bertone 2011, 99)

- iii) reduplication without dislocation: plurality is conveyed by reduplicating the movement of the sign, which however does not change position within the signing space. To illustrate, the sign HOUR in its citation form (a) displays one single movement. In order to convey the plural, the sign can be reduplicated an indefinite number of times (b).

a. HOUR



b. HOUR++
'Hours'



- iv) sideward movement without reduplication. This strategy is attested for the sign CHILD, which can incorporate a sideward movement without being reduplicated to convey the meaning 'children', as shown below.

CHILD_{ipsi}
'Children'



(based on Bertone 2011, 99)

However, there are some signs that cannot show overt morphological marking to convey plurality despite being articulated in the neu-

tral space. These are: KEY, SCISSORS, PEN, PLUMBER, SALAMI, PAINT_BRUSH. These nouns cannot be reduplicated to convey information of numerosity because they are phonologically homophonous to the correspondent verb signs in all parameters but movement. Therefore, reduplication of this signs actually conveys a verbal meaning rather than plurality. We see a couple of examples below. In its citation form, the sign SCISSORS is articulated as in (a). The reduplication of the sign in the signing space results in the verb CUT_WITH_SCISSORS (b).

a. SCISSORS



b. SCISSORS CUT_WITH_SCISSORS
'(To) cut with scissors.'



The sign KEY is articulated in its citation form as in (a). When reduplicated in the signing space, the sign conveys the meaning 'lock several doors' (b).

a. KEY



b. LOCK++
'(To) lock several doors.'



Therefore, these nouns employ numerals, quantifiers or classifiers to carry plurality features, as it happens for most of the nouns articulated on the signer's body. See in example (a) below the plural form of the sign KEY conveyed through the quantifier MANY, and in (b) the plural form of the sign SCISSORS conveyed through reduplication of the dedicated entity classifier.

a. KEY MANY
'Many keys'



b. SCISSORS CL(V): 'scissors_be_located'++_ipsi
'Many scissors'



4.1.2 Non-manual marking

The morphological strategies described in [MORPHOLOGY 4.1.1] for inflectional nouns can be combined with dedicated mouthings or mouth gestures. For instance, the plural form of the sign HOUSE, derived through reduplication with dislocation (a) is marked by the mouthing

of the vowel [a] (the first vowel of the corresponding Italian word *casa*) combined with furrowed eyebrows (fe). The plural form HOUR++ (b), instead, is marked by the vowel [o] (the first vowel in the corresponding Italian word *ora*) combined with squinted eyes (sq).

- | | |
|---|---|
| <u> </u> fe
<u> </u> [a] | |
| a. HOUSE++ _{ipsi}
'Houses' |  |
| | |
| <u> </u> sq
<u> </u> [o] | |
| b. HOUR++
'Hours' |  |

Nouns articulated close or on the signer's body generally do not allow overt inflectional processes due to phonological constraints. However, some nouns can be marked by a specific non-manual marking in order to convey plurality: the signer repeats the articulation of the nominal sign for at least three times and marks each articulation through a head nod (hn) and/or a non-manual displacement moving the head from left to right. To illustrate, we show below the occurrence of these morphological modifications affecting the sign WOMAN in order to convey the meaning 'women'.

- | | |
|---|---|
| a. WOMAN |  |
| | |
| <u> </u> hn
<u> </u> | |
| b. WOMAN++
'Women' (based on Pizzuto, Corazza 1996, 182) |  |

In order to convey plurality, the articulation of the sign CAT is repeated and it is accompanied by non-manual displacement moving the head from left to right.

- | | |
|--------------------|---|
| a. CAT |  |
| | |
| b. CAT++
'Cats' |  |

This strategy is detected only for some nouns: WOMAN, MAN, CAT, DOG, MOTHER and FATHER. However, it is not obligatory, and it is usually employed to convey an additional emphatic meaning.

4.2 Localisation and distribution

Besides employing classifiers [MORPHOLOGY 5], information of localisation and spatial distribution can be conveyed through overt morphological modifications of the articulation of the noun sign, which can be i) dislocated within the signing space, thus being articulated in a point of the signing space which is different from the point of articulation of the sign in its citation form, and/or ii) reduplicated. Reduplication simultaneously conveys information of both number and position, without the articulation of other elements (such as quantifiers or classifiers). In such cases, the loci of the signing space do not have grammatical functions of marking the arguments of the predicates, but they define the position of referents, thus space has an isomorphic function. In the example below, the signer specifies both number and position of the three boxes, without recurring to numerals or quantifiers.

BOX_a BOX_b BOX_c 
 'A box on the right, one in the middle, and one on the left.'

When nouns cannot be displaced within the signing space due to phonological constraints (point of articulation or complex movement), to convey localisation and distribution they occur with pointing signs [LEXICON 3.7] or classifiers, which position them within the signing space [MORPHOLOGY 5] thus functioning as proforms. For instance, the sign MOTORCYCLE (a) is a two-handed asymmetrical sign that needs an entity classifier to display both features of number and localisation, through the incorporation of a sideward movement. The sign for PEN, instead, is one of those signs whose reduplication carries verbal meaning [MORPHOLOGY 4.1.1], therefore it needs a classifier to be reduplicated and located in the signing space, as in (b).

a. MOTORCYCLE CL(3): 'vehicle_be_located'_{ipsi} 
 'The motorcycles are (parked) there.'

b. PEN CL(G): 'pen_be_located'++ 
 'There are many pens on the table.'

Information on Data and Consultants

The descriptions in this section are based on the references below. For information on data and consultants see the references. The video clips and images exemplifying the linguistic data have been produced by LIS native signers involved in the SIGN-HUB Project.

Authorship Information

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References

- Bertone, C. (2011). *Fondamenti di grammatica della lingua dei segni italiana*. Milano: Franco Angeli. (83-132) [4.1], [4.2]
- Pizzuto, E. (2004). “Aspetti morfo-sintattici”. Volterra, V. (ed.), *La lingua dei segni italiana. La comunicazione visivo-gestuale dei sordi*. Bologna: il Mulino, 179-209. [4.1]
- Pizzuto, E.; Corazza, S. (1996). “Noun Morphology in Italian Sign Language (LIS)”. *Lingua*, 98, 169-96. [4.1], [4.2]
- Pizzuto, E.; Giuranna, E.; Gambino, G. (1990). “Manual and Non-Manual Morphology in Italian Sign Language: Grammatical Constraints and Discourse Processes”. Lucas, C. (ed.), *Theoretical Issues in Sign Language Research*. Washington: Gallaudet University Press, 83-102. [4.1]

