Lingue dei segni e sordità 1

A Grammar of Italian Sign Language (LIS)

edited by
Chiara Branchini and Lara Mantovan

Edizioni
Ca'Foscari

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Lingue dei segni e sordità

A series edited by
Anna Cardinaletti, Sabina Fontana

1

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Table of Contents

Introduction

Presentation

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 and it follows the *SignGram Blueprint*, the first comprehensive guide to sign language grammar description. The *SignGram Blueprint* (link `https://www.degruyter.com/view/product/467598`), is a Manual guiding language specialists and linguists writing reference grammars of sign languages. It is the output of the *SignGram* COST Action "Unraveling the grammars of European sign languages: pathways to full citizenship of deaf signers and to the protection of their linguistics heritage", Action IS1006 (2011-2015), it has been implemented on the SIGN-HUB platform and is available in open access.

Within the SIGN-HUB project, several grammars have been created for other sign languages (Catalan SL, Dutch SL, French SL, German SL, Spanish SL, Turkish SL) in addition to this one, and the goal is that further sign languages will join the repository with new grammar descriptions.

A Grammar of Italian Sign Language is composed of a Table of Contents and six Parts: Part 1 is devoted to introducing the social and historical background in which the language has developed, and the remaining five Parts cover the main properties of Phonology, Lexicon, Morphology, Syntax and Pragmatics.

Thanks to the electronic format of the grammar, text and videos are highly interconnected, therefore this is not a traditional book, but a hybrid product which is designed to fit its content, namely, the description of a visual language. After the introduction, the reader will find a list of abbreviations and conventions used for glossing the examples, including the ones that are linked to a video.

In what follows, we first explain the motivation that led us to write a digital grammar of LIS, we then provide information on the methodological choices guiding the writing as well as indications on how the grammar is composed and how it can be used. We conclude the introduction by presenting SIGN-HUB, the wider project that enabled the realisation of the LIS grammar, together with other six sign language grammars.

Goals and coverage

Despite the great advances in sign language research registered in the last decades in Italy (and abroad), a comprehensive description of the grammar of LIS is still lacking.

The lack of a complete descriptive grammar has negative effects on different domains of the life and education of the Deaf community. A direct drawback is the lack of tools that enable sign language teachers to provide rich and detailed information on LIS to deaf students, to students learning LIS as a second language, but also to professionals training to become interpreters. This lack also affects researchers investigating LIS and its typological relations to other spoken and sign languages. Moreover, a detailed description of the LIS grammar will favour the development of diagnostic tests able to assess language impairment and language pathologies, which in turn can help therapists who need to assess language competence.

This grammar incorporates the results of previous research and adds new research on some topics, however, it is by no means a complete description of LIS. Some sections are void of content, either because there is not enough research or because the specific topic does not apply to the LIS grammar. In general, *A Grammar of LIS* contains sections and topics that have received more attention and others that need to be further investigated and for which only an initial description is available. Moreover, not all examples are linked to a video. *A Grammar of LIS* has, however, many visuals: 1,541 video examples and 712 still images.

Far from being a final product, this grammar aims at encouraging other researchers and language professionals to take up the challenge of enriching it in a collective effort, thus contributing to advances in the personal, social and political sphere of the Deaf (and hearing) community.

Access to the *Grammar* requires a general knowledge about grammar and grammatical terminology, but basic concepts are explained in a glossary and in the text as well. The *Grammar* intends to be accessible to a general reader, in particular through the extensive use of visual examples (videos and pictures), which the digital format of the grammar allows.

In this sense, as a digital and on-line product, *A Grammar of LIS* radically differs from other, more traditional grammars since it provides hundreds of visual examples.

Methodological choices

The grammar has been written by a team of senior and junior researchers (six hearing and one deaf, five women and two men) at Ca' Foscari University of Venice and at the University of Milan-Bicocca with the essential contribution of seven Deaf consultants participating to the discussion of the data and the making of the visual examples. The writing has been accomplished over 4 years, thanks to the SIGN-HUB project.

The authors have a background in formal linguistics. While the theory has guided the description of the linguistic phenomena contained in the grammar, the language employed to describe them is not technical, as the intended users of this grammar are not (only) professionals working in the field of linguistics. However, as we mentioned, we assume familiarity with basic notions and grammatical concepts specific to sign languages.

Although the grammar has many authors, we made an effort to adopt a homogenous style. Together with the authors of the sign language grammars created within the SIGN-HUB project (see below), we agreed on some guidelines. As a general rule, we tried to write concrete, simple and easy to read descriptions. For example, we agreed on the use of the term 'sign' for the lexical unit of LIS, except for linear order facts and some prosodic and morphological descriptions where the expressions 'prosodic word', 'word order' and 'word internal' phenomena are employed. The term 'language channel' has been preferred to 'language modality' to avoid confusion with the grammatical term; 'spoken languages' has been preferred to 'oral languages'; while 'sign languages' has been used rather than 'signed languages'.

In writing *A Grammar of LIS*, we avoided to define linguistic terms, as they are present in the glossary at the end of the grammar, and to compare the phenomena observed in LIS with those present in other sign or spoken languages, as this is usually found in a Handbook, not in a grammar.

The structure of the Table of Contents follows the *SignGram Blueprint*, output of the Cost Action *SignGram* project, a tool for guiding language specialists writing reference grammars of sign languages. The adoption of the same structure and style for the seven sign language grammars produced within the SIGN-HUB project has the welcome outcome of allowing typological comparative studies of sign language grammars and encouraging fruitful contaminations. However, not all grammars contain the same amount of grammatical description. This is due to different reasons: (i) the numerosity of the team working on the task, (ii) the absence/presence of previous studies investigating grammatical phenomena, (iii) the impossibility to collect data for a set of properties or the lack of sufficient information to write a description of a section, (iv) some sections or subsections that had been thought to hold for some sign languages might not be relevant for all of them.

A Grammar of LIS, as all sign language grammars produced within the SIGN-HUB project, is written in English. This was a requirement of the European Union, which funded the project. While the English version of *A Grammar of LIS* allows foreign Deaf and hearing students, teachers, interpreters and researchers to access it, it may be an obstacle for Italian users. For this reason, the authors are planning to produce an Italian version of the present grammar.

How to use the grammar

Each Part of the grammar contains an introduction explaining the function of the linguistic component under investigation (e.g. Phonology) and the organisation of the Part. Each Part is composed of chapters organised in sections and subsections. Information on authorship, data and consultants is reported at the end of each chapter. At the end of the grammar, the reader can find: (i) an appendix containing the complete list of LIS handshapes and the labels we used to refer to them, (ii) a complete list of references to previous works in the literature on which the grammar is based, and (iii) a glossary of grammatical terms explaining basic concepts that are taken for granted in the text.

Typically, if there is a concept/term that is mentioned but not described in a section, an indication connects it to the section where it is explained. In other cases, the section where some properties (for example, lexical) of a phenomenon are discussed is linked to another section of the grammar where other properties (for instance, syntactical) of that phenomenon are addressed. This is also the reason why many topics are addressed and described in different parts of the grammar. Many of them have, in fact, clear relations to differ-

ent domains or can be described differently depending on what one aims at observing: its phonological (Phonology) or lexical description (Lexicon), its morphological modification (Morphology), its syntactic distribution in the sentence (Syntax), its use in the discourse and speech context (Pragmatics). Just to provide an example, negation can be observed from the point of view of the negative words employed to produce a negative sentence (Lexicon), their internal composition and modification (Morphology), or their distribution in the sentence (Syntax).

When relevant, information about the data gathered in order to produce the description is found at the end of the chapter. This is important because it might provide information about the particular variety represented in the description. Variation within the LIS community is well-known, but hardly studied, so this piece of information might help identify on which variation certain generalisations have been drawn.

We follow the decision taken in the *SignGram Blueprint* to devote an independent part to Pragmatics on an equal footing with other grammar components to promote the description and analysis of so far understudied domains of LIS grammar addressing, among other issues, discourse structure, figurative meaning, and communicative interaction. The reader may be surprised not to find a part on Semantics. However, the meaning component is not neglected in the grammar. It is discussed whenever the form that is associated to a specific semantic phenomenon is presented. For example, we discuss the meaning of subordinate clauses when we discuss their form, and not in a separate section.

The SIGN-HUB project

A Grammar of Italian Sign Language (LIS) is an output of *The SIGN-HUB project: Preserving, researching and fostering the linguistic, historical and cultural heritage of European Deaf signing communities with an integral resource* funded by the European Union's Horizon 2020 (2016-2020).

The project involved ten teams from seven countries (France, Germany, Israel, Italy, The Netherlands, Spain and Turkey) and has been designed by a European research consortium to provide an innovative and inclusive resource hub for the linguistic, historical and cultural documentation of the Deaf communities' heritage and for sign language assessment in clinical intervention and school settings.

To this end, we created an open state-of-the-art digital platform with customised accessible interfaces. The project initially fed the platform with core content in the following domains, expandable in

the future to other sign languages: (i) digital grammars of seven sign languages (Catalan SL, Dutch SL, French SL, German SL, Italian SL, Spanish SL, Turkish SL), (ii) an interactive digital atlas of linguistic structures of the world's sign languages, (iii) online sign language assessment instruments and clinical intervention, and (iv) the first digital archive of life narratives by elderly signers, subtitled and partially annotated for linguistic properties.

These components, made available for the first time through a centralised platform to specialists and to the general public, should (i) help explore and value the identity and the cultural, historical, and linguistic assets of Deaf signing communities, (ii) advance linguistic knowledge on the natural languages of the Deaf, and (iii) impact on the diagnosis of language deficits within these minorities.

The digital platform also contains a 40-minute documentary movie *We were there - we are here* including short fragments from the 137 interviews conducted in the context of the project, as well as fragments from previously existing materials (collected in France and Israel). The elderly signers coming from 7 countries (France, Germany, Israel, Italy, Spain, Turkey and the Netherlands) share their experiences from the past concerning personal relationships, work, education and historical events.

An edited volume *Our lives – our stories: Life experiences of elderly Deaf signers* will soon be published by De Gruyter Mouton (expected publication date January 2021). The volume, authored by SIGN-HUB members based on information collected during the interviews and by researchers from outside the project, offers a glimpse on the life experiences of Deaf elderly signers and on the social, political, historical and educational events characterising the 20th century in different countries. For more information on the SIGN-HUB project, the reader can visit the international (www.sign-hub.eu) or national (www.sign-hub.it) website of the project.

We hope that the seven sign language grammars freely accessible to the general public will contribute to a deeper understanding and knowledge of sign languages boosting the description and analysis of more sign languages of the world. We particularly hope that *A Grammar of Italian Sign Language* will inspire a more robust linguistic awareness in the Italian Deaf community, which will support the diffusion of their language and culture on the national territory. Hopefully, this will promote a deeper consciousness towards its neglected social and political rights and will contribute to the recognition of LIS.

List of abbreviations

In this grammar, the only abbreviation used to refer to a sign language name is LIS, which stands for Italian Sign Language. Below, we list the abbreviations used to refer to grammatical terms and non-manual markers.

Grammar-related abbreviations

AUX	auxiliary
CL	classier construction
COLL	collective
CONTRA	contralateral
DEF	definite
DEM	demonstrative
DISTR	distributive
EXCL	exclusive
INCL	inclusive
INDEF	indefinite
INT	intensive marker
IPSI	ipsilateral
IX	index, pointing sign
LOC	locative
PL	plural
POSS:	possessive
SASS	Size-And-Shape

Specifier Abbreviations of non-manual markers (based on the grammatical function)

COND	conditional
MARKER FOC	focus marker
NEG	negation marker
REL	relative clause marker
RS	role shift
TOP	topic marker
WH	wh- (content) interrogatives
Y/N	yes/no (polar) interrogatives

Abbreviations of non-manual markers (based on the form)

BL-B	body lean backward
BL-F	body lean forward
BL-LEFT	body lean to the left
BL-RIGHT	body lean to the right
BLOW	blowing out air
CD	chin down
CE	closed eyes
CU	chin up
EG	eye gaze
FE	furrowed eyebrows
GT	grinding teeth
HN	head nod
HS	head shake
HT-B	head tilt backward
HT-LEFT	head tilt to the left
HT-RIGHT	head tilt to the right
LP	lip protrusion
MD	mouth-corners down
MU	mouth-corners up
OM	open mouth
PC	puffed cheeks
RE	raised eyebrows
SC	sucked cheeks
SQ	squint
TL	teeth on the lower lip
TP	tongue protrusion we: wide-open eyes
WRN	wrinkled nose

List of conventions

In this section, we provide the list of the notation conventions used throughout the LIS grammar. In line with common practice in the field of sign language linguistics, the signs in the examples are represented by glosses in small caps. Below the string of glosses, the English translation is reported enclosed in single quotation marks. An example is shown below.

MARIA DOG HELP
'Maria helped the dog.'

If the example consists of one single sign and the gloss is transparent enough to infer its meaning, no English translation is provided. For illustrative purposes, each notation convention is associated with an example applicable to LIS.

Sign reduplication: if a sign is reduplicated, plus signs are added after the gloss.

Example
HOUSE++
'Houses'

Variant forms: if there are lexical variants of a sign, each variant is associated with a number included between brackets.

Example
PHONE(1)

Manual articulators: when the dominant hand (dom) and the non-dominant hand (n-dom) are used independently, the signing production of each hand is shown in a separate line

Example

dom: DOG
n-dom: IX
'The dog'

Temporal extention of signs: the duration of a sign is represented by adding a sequence of dashes after the relevant gloss.

Example

dom: DOG BEAUTIFUL
n-dom: IX----------
'The cute dog'

Non-manual markers: non-manuals are indicated by a straight line above the gloss(es). The extension of the line reflects the extension of the corresponding non-manual marking. Above the line, the abbreviation referring to the relevant non-manual is reported.

Example

wh
WHICH

Mouthing and mouth gestures: the approximate transcription is provided between square brackets and the approximate orthographic representation is given between single quotes.

Examples

[sss]
NOT_YET
'fresco'
FRESH

Fingerspelling: if hyphens are interpolated between letters, the gloss refers to a fingerspelled word.

Example

L-U-C-A

Multi-word glosses: if the gloss identifying a single sign requires two or more words in the glosses, an underscore is interpolated between words.

Example

NOT_YET
'Not yet'

Multi-morphemic signs: if a sign is composed by more than one morpheme (e.g. compounds, incorporation, cases of cliticisation), a circumflex accent is added between morphemes.

Example

MONTH^TWO
'Two months'

Compounds: if the internal composition of a compound is not relevant to the linguistic description, a gloss identifying the whole meaning of the compound is provided (e.g. computer instead of electricity^CL(5): 'type'). In simultaneous compounds, i.e. compounds in which each hand contributes a separate root, manual articulators are signalled by h1 and h2 included within brackets.

Example

CL(V): 'fork'(h1)^CL(5): 'dish'(h2)
'Fork'

Suppletive forms: if a sign is composed by more than one morpheme and the morphemes are not segmentable or identifiable, a dot is added in between.

Example

EXIST.NOT
'There is not'

Pointing signs: pointing signs are generally glossed as ix. If it functions as personal pronoun, the grammatical person is indicated by a subscript number after the gloss. If the pointing sign has another function (e.g. locative, demonstrative), this is indicated between brackets after the gloss.

Examples

IX_1
'I'
ix(loc)
'There'

Verbal agreement: the locations relevant to verbal agreement are indicated by subscripts.

Example

$_1help_2$
'(I) help (you)'

Handshape specification: if a sign is produced with a particular handshape that needs to be specified, the handshape is indicated between brackets after the gloss.

Example

$poss(G)_1$
'My'

Location specification: if a sign is produced in a particular location in the signing space, this is indicated as subscripts included in square brackets.

Example
ix(loc)$_{[ipsi\_distal]}$
'There'

Classifier constructions: the format representation for classifier constructions is CL(handshape): 'interpretation_in_English'

Example
CL(G): 'brush_teeth'
'Brushing teeth.'

Size-And-Shape Specifiers: the format representation for SASS is SASS(handshape): 'interpretation_in_English'

Example
SASS(flat closed L): 'little'
'Little amount'

Discourse stretch: if an example reproduces a communicative exchange between signers, each contribution is signalled by a capital letter followed by a colon.

Example
A: YES
B: THANK_YOU
'Yes.' 'Thank you.'

3 Verbal inflection

Summary 3.1 Agreement. – 3.2 Tense. – 3.3 Aspect. – 3.4 Modality. – 3.5 Negation.

In [LEXICON 3.2], a preliminary description of the three categories of verbs (plain verbs, agreement verbs and spatial verbs) detected in LIS has been provided, focussing on their articulation and possibility to show overt morphological agreement with their arguments.

The present chapter improves the description of the three verb classes by considering the inflectional morphological processes involved to convey not only agreement (of person, location and number) [MORPHOLOGY 3.1], but also tense [MORPHOLOGY 3.2] and aspect [MORPHOLOGY 3.3]. Notice that these morphosyntactic features are mainly encoded through i) spatial relations among loci, which are specific points of the signing space associated to the argument(s) of the verb, ii) reduplication of the verb sign and/or iii) modification of the point(s) of articulation, path-movement (if any) and/or orientation of the verb sign.

3.1 Agreement

In LIS, we can distinguish three types of agreement: person, number and spatial agreement. Person and number agreement refer to the phonological modifications that verbs display to encode person

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and number features, whereas spatial agreement defines the locative source and/or locative goal of an event. As shown in [LEXICON 3.2], only agreement and spatial verbs can convey agreement through modification of some of the phonological features of the verb root: point of articulation, direction of the path-movement, orientation of the palm. The following sections describe how each verb class marks agreement of person, number and location with its arguments. We will see that also dedicated non-manual markers play a crucial role in verbal inflection, in that they can occur with the verb sign to disambiguate arguments in space.

3.1.1 Person and locative markers

The present section describes how person agreement is phonologically marked on the three verb classes described in [LEXICON 3.2]. Person agreement differs from locative agreement, explored in [MORPHOLOGY 3.1.1.3], in that it defines morphosyntactic relations between the predicate and its arguments. Locative agreement, instead, defines locative relations in spatial verbs.

To convey both person and locative agreement, it is common to associate arguments to specific loci of the signing space. Arguments and locations can also be marked through classifiers [MORPHOLOGY 5.1], or role shift [SYNTAX 3.3.3].

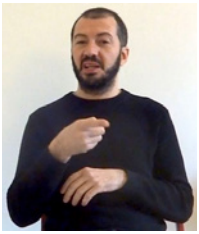
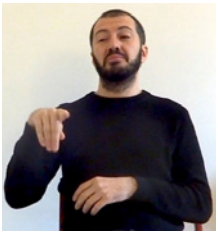
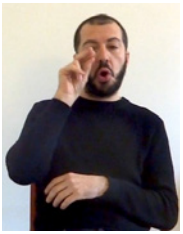
3.1.1.1 Subject markers

As in other sign languages, persons in LIS correspond to specific points of the signing space called *loci*. Specifically, i) first person coincides with a point of articulation which is close to or on the signer's body, ii) second person is marked by a locus in the direction of the interlocutor, whereas iii) third person corresponds to a point of the signing space which is distant from both the signer and the interlocutor. This point expresses the absolute position of the referent (if present in the extra-linguistic context) or the locus associated to the referent in previous discourse. Usually, non-present third person subjects are associated to a locus at the ipsilateral side of the signing space, but this is not obligatory.

Person markers can consist in manual signs such as pronouns, i.e. pointing signs towards dedicated loci [LEXICON 3.7.2.1], or they can be conveyed through modifications of some phonological features of the verb sign, which can be articulated in the locus associated to the ar-

gument and/or modify its path movement to show overt manual morphological agreement. The morphological strategies adopted by LIS verbs are illustrated below. For further information about argument realisation see [SYNTAX 2.2].

Plain verbs [LEXICON 3.2.1], both transitive and intransitive, are articulated near or on the signer's body in their citation form, thus they cannot be inflected in space to show overt agreement with their argument(s). Nevertheless, the subject position can optionally be marked non-manually by means of head tilt (ht) or a slight body lean (bl-left/right) occurring with the articulation of the verb sign, thus realising non-manual agreement [SYNTAX 2.1.2.3.2]. In the example below, we see that the signer non-manually marks the position dedicated to the subject GIANNI through a slight body lean towards the position of the signing space in which the subject GIANNI was previously articulated.

bl-left: a

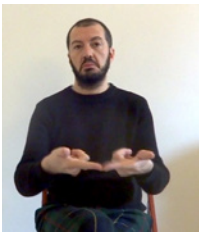
GIANNI$_a$ PIETRO BE_FAMILIAR

'Gianni knows Pietro.'

Alternatively, plain verbs can be followed by an auxiliary AUX which allows to show overt manual agreement between the subject and the object (see [LEXICON 3.3.4] for details).

Differently from plain verbs, agreement verbs [LEXICON 3.2.2] can display overt manual morphological agreement with the arguments.

In transitive and ditransitive agreement verbs displaying two points of articulation in the neutral space connected by path movement, the subject argument is usually associated to the starting point of the movement, which can be on the signer's body to mark first person (a) or dislocated in the signing space for second and third person (b).

a. $_{1}$DONATE$_{2}$
'I donate you this.'

b. GIANNI$_{a}$ MARIA$_{b}$ $_{a}$HELP$_{b}$
'Gianni helps Maria.'

The position of third person subjects is optionally non-manually marked by head tilt and a slight body lean towards the starting point of the movement, corresponding to the subject position. Notice that eye gaze (eg), instead, is directed towards the location of the object argument [SYNTAX 2.1.2.3.2]. Non-manual markers are produced simultaneously to the articulation of the verbal sign.

ht: a
bl-left: a
eg: b

L-U-C-A$_{a}$ P-A-O-L-O$_{b}$ $_{a}$HATE$_{b}$
'Luca hates Paolo.'

Transitive and ditransitive agreement verbs whose starting point is on the signer's body, like SEE and SAY, show overt manual morphological agreement with the subject when they select for a first person subject, since its locus corresponds to the starting point of the path movement of the verb. This is illustrated below.

IX$_{1}$ ADDRESS POSS$_{1}$ $_{1}$SAY$_{2}$
'I told you my address.'

When they select for a second or third person subject, no manual morphological agreement is displayed by the verb due to articulatory reasons. The subject is localised in the signing space through a noun phrase or pronoun (see [SYNTAX 2.1.2] for details), and the verb sign can optionally be marked by head tilt and a slight body lean towards the position in the signing space associated with the subject,

as to realise non-manual subject agreement. This is illustrated below.

ht: a
bl-left: a
L-U-C-A_a P-A-O-L-O_b LIE SAY$_b$
'Luca tells a lie to Paolo.'

It is important to notice that the final location of the path movement of these verbs realises morphological manual agreement with the object argument (direct or indirect) [MORPHOLOGY 3.1.1.2].

Crucially, in transitive *backward verbs* [LEXICON 3.2.2] subject marking corresponds to the final location of the verb movement. For first and second person subject, as in (a) below, the verbal sign retains its citation form. On the other hand, when the verb selects for a third person subject, the verb movement can be slightly modified as to spatially agree with the subject, as shown in (b).

a. IX$_2$ T-SHIRT TAKE
'You take the t-shirt.'

b. L-U-C-A KEY TAKE
'Luca takes the keys.'

Intransitive agreement verbs displaying one point of articulation in the signing space optionally agree with the subject when it has the thematic role of agent (in unergative verbs, like PLAY (a)), while they must show spatial agreement with the subject when it has the thematic role of theme (in unaccusative verbs, like GROW_UP (b)) [SYNTAX 2.1.1.2; 2.1.2.3.1].

a. CHILD$_a$ PLAY$_a$
'The child plays.'

b. CHILD$_a$ GROW_UP$_a$
'The child grows.'

Unaccusative agreement verbs are usually articulated in their citation form, namely in front of the signer, for first person; for second or third person, they display overt morphological agreement with their only argument being articulated in the same locus of the signing space, as in (b) above. If the subject is an invariable nominal sign (i.e. it is articulated on the signer's body), it is assigned a locus in the signing space through a pointing sign, and the verb shows spatial agreement with it, as illustrated below.

WOMAN^CHILD IX$_a$ GROW_UP$_a$
'The girl grows.'

3.1.1.2 Object markers

Overt manual morphological agreement with the object is displayed only by agreement verbs [LEXICON 3.2.2]. The phonological realisation of agreement depends on the verb type.

In transitive agreement verbs displaying two points of articulation in the neutral space connected by path movement, the object is marked by the ending point of the path movement. If the verb selects for a first person object, the path movement ends on the signer's body (or in a position close to it). Optionally, the verb sign can be marked by eye-gaze (eg) directed towards the locus associated with the object, thus realising non-manual object agreement.

ht: a
bl-left: a
eg: b
L-U-C-A$_a$ P-A-O-L-O$_b$ $_a$HATE$_b$
'Luca hates Paolo.'

In transitive agreement verbs whose starting point is on the body of the signer, second and third person object is marked by the final position in the neutral space of the verbal path movement. Optionally, agreement can also be marked non-manually, by means of eye-gaze and shoulders of the signer directed towards the object position. Some of these verbs are SEE, KISS, LOVE.

a. G-I-A-N-N-I M-A-R-I-A$_a$ SEE$_a$
'Gianni sees Maria.'

b. G-I-A-N-N-I M-A-R-I-A$_a$ LOVE$_a$
'Gianni loves Maria.'

With a first person object, the verb sign retains its citation form and agreement is encoded through pronouns. We provide an example with the verb LOVE below.

IX$_2$ IX$_1$ LOVE
'You love me.'

Transitive verbs such as TAKE_CARE express agreement with the object through both orientation of the palm and direction of the path movement. Compare the two examples below: in (a) the verb selects for a third person object, whereas in (b) it selects a first person object. Crucially, in this instance the object does not need to be lexically realised through a noun phrase or pronoun: the direction and orientation of the verbal sign are enough to mark the object, thus showing overt manual agreement.

ht: a
bl-left: a

a. FATHER$_a$ SON$_b$ IX$_{3a}$ $_a$TAKE_CARE$_b$ 
'The father takes care of his son.'

b. IX$_2$ TAKE_CARE 
'You take care of me.'

Notice that agreement between subject and object can optionally be marked non-manually by means of head tilt and body lean towards the position associated to the subject, and shoulder of the signer directed towards the locus in space associated with the object.

Transitive verbs (or verbs used transitively, like BREAK) displaying one point of articulation in the signing space must agree with the direct object.

CHILD COMPUTER$_a$ BREAK$_a$ 
'The child breaks the computer.'

Ditransitive agreement verbs with two points of articulation in the signing space can: i) show overt manual morphological agreement with the subject [MORPHOLOGY 3.1.1.1] and the indirect object, which corresponds to the final location of the path movement (a); ii) show agreement with the three arguments, namely the subject, the direct object and the indirect object. In these instances, the direct object is marked by the hand configuration, whereas the final location of the movement agrees with the indirect object, as in (b). Notice that in (b) it is the classifier predicate that allows to incorporate the direct object.

a. MARIO$_a$ IX$_{3a}$ ENVELOPE IX$_{3a}$ SARA$_b$ $_a$GIVE$_b$ 
'Mario gives an envelope to Sara.'

b. L-U-C-A$_a$ G-I-A-N-N-I$_b$ DRINKING_GLASS $_a$CL(unspread curved open 5) : 'give_glass'$_b$ 
'Luca gives a/the glass to Gianni.'

It is important to consider that classifier predicates also allow some plain verbs, which usually do not display overt morphological agreement with their arguments, to show overt morphological agreement with their object in transitive constructions. As we can see in the example below, when a plain verb is realised through a classifier predicate, the handshape defines the theme argument, thus it shows overt morphological agreement with the object.

L-U-C-A SANDWICH CL(flat open 5): 'eat_sandwich'
'Luca eats a sandwich.'

Ditransitive agreement verbs whose starting point is on the body, like SAY, show overt manual agreement with the indirect object, whose position in the space corresponds to the final location of the path movement (a). Crucially, if the verb selects for a first person object, the verb path ends on the signer's body rather than in the neutral space, as in (b).

ht: a
bl-left: a
a. L-U-C-A_a P-A-O-L-O_b LIE SAY_b
'Luca tells a lie to Paolo.'

b. IX_2 CRY $_2SAY_1$
'You are crying, tell me (why).'

Alternatively, this class of verbs can overtly mark manual agreement through the addition of a path movement connecting their point of articulation to the position in the signing space corresponding to the indirect object. This is illustrated below.

IX_{3a} SAY IX_{3b}
'He tells him.' (recreated from Pizzuto 2004, 194)

It is worth mentioning the case of the verb EXPLAIN, which is articulated close to the mouth and displays a repeated alternating circle movement directed outward [PHONOLOGY 1.3]. The direction of the movement marks the indirect object. For second and third person indirect object, the movement is directed towards the dedicated location in the neutral space (a), whereas to mark a first person indirect object the verb sign modifies the direction of the movement and thus starts its articulation in the neutral space, rather than from the mouth, and moves inward (b). Again, in these instances the indirect object does

not need to be lexically specified since the verb movement addresses the signer's body, which corresponds to the first person. Optionally, agreement can be marked non-manually through head tilt and body lean towards the subject position, and eye gaze directed towards the indirect object.

ht: a
bl-right: a
eg: 3pl-coll

a. IX_{3a} TEACHER $\text{IX}_{3pl\text{-}coll}$ STUDENT IX_{3a} $\text{EXPLAIN}_{3pl\text{-}coll}$
'The teacher explains to the students.'

b. IX_2 MATHEMATICS $_2\text{EXPLAIN}_1$
'You explain mathematics to me.'

Ditransitive verbs such as TEACH, SHOW, ASK, show overt morphological agreement with the indirect object through both path movement and orientation of the palm. This holds either with a first person object (a), or with second and third person objects (b).

a. SISTER_a POSS_1 SON_b $_a\text{TEACH}_b$
'My sister teaches her son.'

hs

b. IX_3 MIRKO $_3\text{TEACH}_1$ CHESS RULE IX_1 UNDERSTAND IMPOSSIBLE_PA_PA
'Mirko tried hard to teach me the rules of chess, but I cannot understand them.'

A peculiar example is the verb TELL, a two-handed asymmetrical sign [PHONOLOGY 1.4.2] in which the dominant hand displays a repeated movement outward. The direction of the movement marks agreement with the indirect object, be it a second or third person indirect object (a). Crucially, this verb can be morphologically modified to show overt manual agreement with a first person indirect object by changing the starting point of the movement and moving inward, as illustrated in (b). Once again, the first person indirect object does not need to be lexically specified since the verb movement addresses the signer body, which corresponds to the first person.

a. MOTHER$_a$ SON$_b$ IX$_{3a}$ FAIRY_TALE TELL$_b$
'The mother tells her son a fairy tale.'

b. IX$_2$ FAIRY_TALE $_2$TELL$_1$
'(You) tell me a fairy tale.'

In backward verbs [LEXICON 3.2.2], the object (or the source) marker corresponds to the starting point of the movement in the neutral space, whereas the ending point marks the subject (or the goal). Some verbs belonging to this class are: COPY, TAKE_ADVANTAGE_OF, INVITE, TAKE, RECEIVE, CHOOSE.

BLACKBOARD$_a$ TEXT$_a$ STUDENT $_a$COPY
'The student copies the text from the blackboard.'

3.1.1.3 Locative markers

Sometimes the starting and end point of the verb agree with spatial locations, rather than with the verbal arguments. We refer to these verbs as spatial verbs [LEXICON 3.2.3]. In these constructions, the path movement connecting the two points of articulation conveys the movement or spatial location of the subject or object (animate or inanimate) of the event. Verbs that can convey locative agreement are GO, BRING_SOMEONE, ARRIVE, COME, GET_UP, GET_DOWN, WALK, GO_IN, GO_OUT.

IX$_3$ HOUSE$_a$ SCHOOL$_b$ $_a$GO$_b$
'He goes from home to school.'

Therefore, the starting and end points of the path movement of the verb correspond to source and goal locative arguments, respectively. Alternatively, only one location may be specified, as in the following example.

TEACHER BOOK SHELF++$_a$ CL(flat open 5): 'put_book'$_a$
'The teacher puts the book on one of the shelves.'

The example above is also interesting because it shows how the two hands can be employed to localise two entities simultaneously. We illustrate this *Figure-Ground relationship* in the figure below for sake of clarity: the non-dominant (left) hand represents the shelf, thus functions as *ground*, namely the position in which the *figure* represented by the dominant right hand, i.e. the book, it's being located by means of the classifier predicate [MORPHOLOGY 5.1], which carries the locative marker.

dom: CL(flat open 5): 'put_book'$_a$
n-dom: CL(unspread 5): 'shelf'$_a$
'(To) put a book on a shelf'

The two hands can also be used to locate entities with respect to each other, thus both hands carry a locative marker.

dom: CL(G): 'lamp_be_located'
n-dom: CL(unspread 5): 'library_be_located'
'The lamp is next to the library.'

Dedicated classifier constructions can also be employed to define the static location of referents in space, defining real-word locations. In these instances, the classifier predicate displays a short movement downward as to place the referent. See the example below.

CHAIR^SOFT CL(unspread 5): 'be_located'
'The sofa is located there.'

In LIS, we also find some spatial verbs that have no movement, thus they convey agreement simply by localising the sign for the verb in the position dedicated to the location argument, as in the example below.

S-A-R-A THREE^YEAR ROME$_a$ STAY$_a$
'Sara stayed in Rome for three years.'

3.1.2 Number markers

LIS verbs can display further modifications to convey number agreement. Specifically, the verb can be reduplicated or displaced to mark the number of arguments involved in the event. Note that in LIS, the verb usually inflects to mark object number. To express subject number, LIS mostly employs quantifiers and numerals [LEXICON 3.10]. As for person and locative agreement, plain verbs do not inflect for number because they are articulated on the signer's body.

3.1.2.1 Dual

Agreement verbs [LEXICON 3.2.2] mark duality through i) addition of the non-dominant hand in one-handed signs or ii) reduplication of the verb, whose starting and ending point of articulation can be changed in order to convey duality of the subject or object. Example (a) shows that the verb agrees with the dual object by being articulated as a two-handed sign; (b) displays the same strategy employed to mark duality of the subject, whereas (c) is an example of reduplication of the verb to convey duality of the object.

a. dom: G-I-U-L-I-A$_a$ M-A-R-I-A$_b$ G-I-A-N-N-I$_c$ BOOK $_c$GIVE$_b$
n-dom: $_c$GIVE$_a$
'Gianni gives one book to Giulia and Maria respectively.'

b. dom: G-I-U-L-I-A$_a$ M-A-R-I-A$_b$ $_b$PHONE_CALL$_1$
n-dom: $_a$PHONE_CALL$_1$
'Giulia and Maria call me.'

c. IX$_1$ G-I-U-L-I-A$_a$ M-A-R-I-A$_b$ $_1$PHONE_CALL$_a$ $_1$PHONE_CALL$_b$
'I call Giulia and Maria on the phone.'

In the same vein, backward verbs can mark duality of the source/object which is being copied, chosen or invited. The example below shows the reduplication of the backward verb sign COPY to convey duality of the source.

BOOK TWO CL(unspread 5): 'book'$_a$ CL(unspread 5): 'book'$_b$
STUDENT $_a$COPY $_b$COPY
'The student copies (a text) from two books.'

The same strategies are employed by that subclass of agreeing verbs which display only one point of articulation in the signing space corresponding to their single argument. The example below shows that the one-handed verb GROW_UP becomes a two-handed symmetrical sign in order to convey duality of the subject.

dom: CHILD_a CHILD_b TWO GROW_UP_b
n-dom: GROW_UP_a
'The two children are growing up.'

3.1.2.2 Multiple

LIS agreement verbs mainly inflect to mark plurality of the object. In contrast, a plural subject is marked by numerals and quantifiers. To convey plurality of the object, agreeing and spatial verbs can display specific morphological modifications: i) they can incorporate an arc movement from the contralateral to the ipsilateral side of the signing space to convey the meaning 'all', as exemplified in (a); ii) one handed-signs can be realised as two-handed signs, as in (b); and iii) they can be reduplicated in different locations in space, as exemplified in (c), to convey distributivity features. Reduplication applies to the articulation of the verb an indefinite number of times (usually three).

a. GIVE_{arc}
'Give to all.'

b. dom: GIVE_{arc}
n-dom: GIVE_{arc}
'Give to all.'

c. GIVE_{distr}
'Give to each one.'

When the object is a sign articulated in the signing space, which can be reduplicated to convey plurality, the verb can show overt agreement with it by being reduplicated in the same loci dedicated to the plural object, as in the example below.

MAN MANY HOUSE_a++ BURN_a++
'Many men burnt many houses.'

3.1.2.3 Exhaustive

Exhaustivity refers to number information, but it also specifies the position of members of a set within the signing space. Exhaustivity can be encoded in agreement and spatial verbs. It is conveyed through a distributive morpheme, which is expressed by a repetition of the verbal root and is always interpreted on the internal argument (the theme) in a transitive construction. In the example below, the repetition of the verb (EXAMINE++) marks numerosity and distribution of the object.

PROFESSOR IX STUDENT EACH++ CONTROL++ 
'The professor examines each of the students.'
(recreated from Mazzoni 2008, 164)

As for intransitive constructions, the distributive morpheme is admitted only with unaccusative verbs, such as MELT. In the example below, exhaustivity is marked by repetition of the verb.

PIECE_a PIECE_b PIECE_c BUTTER MELT_a MELT_b MELT_c 
'Each piece of butter has melted.'
(recreated from Mazzoni 2008, 164)

3.1.3 Reciprocal markers

LIS verbs behave differently in expressing a reciprocal relation between their arguments depending on the class they belong to (plain verbs, agreement verbs, spatial verbs).

LIS has a reciprocal marker glossed EACH_OTHER [LEXICON 3.7.4] that can be employed to express reciprocity with plain verbs that, due to articulatory restrictions, don't mark reciprocity on the verb [SYNTAX 2.1.3.4].

IX_{1+2} UNDERSTAND EACH_OTHER 
'You and I understand each other.'

Alternatively, plain verbs express reciprocity through *zero marking*, namely, the object slot of a transitive verb is left empty, as shown below:

IX_{1+3} LOVE 
'We love each other.'

As opposed to plain verbs, agreement and spatial verbs can inflect to convey reciprocity:

i) One-handed signs, such as GIVE, are produced as two-handed signs in which the two hands move alternatively as independent signs, thus marking the two members of the reciprocal relation through *simultaneous reduplication*.

dom: $_{1}$GIVE$_{2}$ $_{2}$GIVE$_{1}$
n-dom: $_{2}$GIVE$_{1}$ $_{1}$GIVE$_{2}$

'We give (something) to each other.'

ii) Two-handed signs, such as DONATE, can realise reciprocity through *sequential reduplication*, namely the two-handed sign moves from the subject to the object and backwards.

EVERY_YEAR CHRISTMAS IX$_{3a+3b}$ $_{a}$DONATE$_{b}$ $_{b}$DONATE$_{a}$

'Every year at Christmas they give each other a present.'

Alternatively, the two-handed sign is produced as if the two hands functioned as independent articulators, moving alternatively between the positions of the two arguments of the predicate.

dom: $_{1}$DONATE$_{2}$ $_{2}$DONATE$_{1}$
n-dom: $_{2}$DONATE$_{1}$ $_{1}$DONATE$_{2}$

'(To) donate to each other.'

The reader is referred to [SYNTAX 2.1.3.4] for a more detailed description of reciprocity in LIS.

3.2 Tense

The previous sections have described how LIS verbs can inflect to mark agreement with their arguments. Here, we explore the morphological processes that LIS verbs can undergo in order to convey tense, besides employing lexical markers [LEXICON 3.3.1] and temporal adverbials.

3.2.1 Time lines

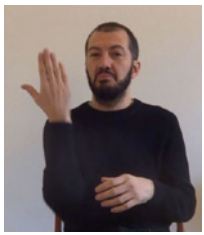
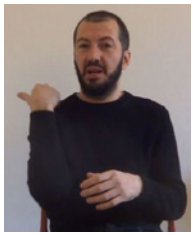
Temporal information is expressed in LIS through a spatial metaphor which visualizes time as a line with respect to the signer's body.

More specifically, the space in front of the signer represents the future, the space in which the signer is located, or the positions very close to the signer's body, represents the present, the space behind the signer represents the past. Therefore, points of the signing space can be considered abstract morphemes which combine with temporal adverbials or verbs in order to convey temporal information and are used as references to locate events in time. In general, in LIS this visual metaphor can be conveyed through non-manual markers occurring with the lexical sign for the verb [MORPHOLOGY 3.2.2], or it can be encoded into temporal adverbials.

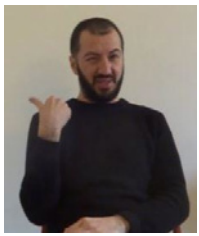
Temporal adverbials referring to the past display a movement and orientation of the palm towards the space behind the signer; temporal adverbials referring to the present are produced in front of the signer in a position very close to his/her body; temporal adverbials referring to the future are directed towards an indefinite point of the space in front of the signer. Being articulated more or less close to the body of the signer, temporal adverbials can locate events in the far past, near past, present, near future, future and far future. The time adverbials reported below show the realisation of the time line in LIS moving from the back to the front of the signer.

PAST

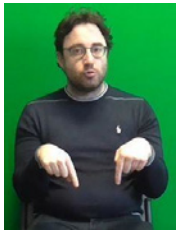
YESTERDAY

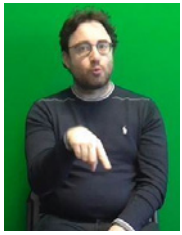
BEFORE



RECENTLY



TODAY

TOMORROW

FUTURE

3.2.2 Tense inflection

Tense inflection refers to the morphological processes able to modify the articulation of the verb sign in order to convey temporal information about the event.

LIS realises tense inflection by changing the position of the shoulders during the articulation of the verb sign: when the shoulders are aligned with the rest of the body, the action is taking place at the time of utterance (a); if the shoulders are tilted backwards, the action took place before the time of utterance, namely in the past (b); if the shoulders are tilted forward, the predicate defines a future event which will take place after the time of utterance (c). Therefore, tense inflection in LIS can be conveyed non-manually and, when it does, it displays the visual metaphor of the 'time as a line'. It is important to notice that the possibility of inflecting the verb to carry temporal information is restricted to the variety of LIS used in the Napoli-Salerno area.

shoulders-straight

a. G-I-A-N-N-I HOUSE BUY

'Gianni is buying a house.'

(recreated from Zucchi 2009, 101)

shoulders-backward

b. G-I-A-N-N-I HOUSE BUY

'Gianni bought a house.'

(recreated from Zucchi 2009, 101)

shoulders-forward

c. G-I-A-N-N-I HOUSE BUY

'Gianni will buy a house.'

(recreated from Zucchi 2009, 101)

When the sentence contains past and future temporal adverbials as independent lexical signs, non-manual inflection on the verb is absent, because tense in conveyed through the temporal adverbial.

PAST G-I-A-N-N-I HOUSE BUY 
'Some time ago Gianni bought a house.'
(based on Zucchi 2009, 103)

3.3 Aspect

Aspectual information in LIS can be conveyed through lexical markers [LEXICON 3.3.2], adverbials or morphological modification of the verb sign, which specify whether the action is completed (perfective aspect) or not completed (imperfective aspect). The following sections describe the morphological processes LIS employs to express aspectual information, mainly consisting in movement manipulations, repetition and lengthening of the verb sign.

3.3.1 Imperfective

Imperfective aspect refers to events or activities which are not completed or that are still going on at the time of utterance. It can also refer to events which are habitual or that are repeated, irrespective of the event time (past, present, future). LIS can convey imperfective aspect through morpho-phonological modifications of the verb sign.

3.3.1.1 Habitual

Habitual aspect relates to events which are usual and happen repeatedly. In LIS, habitual aspect is conveyed through adverbials or rapid repetition and lengthening of the verb sign. Below, we provide an example for each strategy respectively.

a. EVERY_DAY CHILD CRY 
'The child cries every day.'
(based on Bertone 2011, 222)

b. CHILD CRY++ 
'The child was always crying.'
(based on Bertone 2011, 222)

3.3.1.2 Continuative/durative

In LIS, continuative aspect is conveyed through morphological modifications consisting in a longer duration of the articulation of the verb sign or in its repetition. The longer articulation indicates that an event lasts indefinitely in time, without precise information about when it starts/started and ends/ended (a). Repetition, instead, indicates that the same event is repeated for an indefinite time. The verb is repeated at least three times (b). Furthermore, the verb sign can be marked by specific non-manual markers consisting of furrowed eyebrows (fe) and puffed cheeks (pc) (b), or open mouth (om) conveying the indefinite duration of the event, as in (a).

om
a. G-I-A-N-N-I WINDOW LOOK_AT
'Gianni is looking out of the window.'

fe
pc
b. STUDY++
'(S/he) studies/studied for an indefinite period of time.'

3.3.1.3 Conative

Conative aspect is a type of imperfective aspect which refers to the unfinished status of an event that was about to start. LIS can encode conative aspect morphologically, by modifying the articulation of the verb. To illustrate, compare the articulation of the verb FIGHT in (a), with the articulation in (b), which displays morphological modifications to encode conative aspect, glossed FIGHT.CON.

a. IX_1 IX_3 FRIEND IX_{1+3} FIGHT
'I had a fight with my friend.'

Context: You are having a drink with your girlfriend at the bar. A man hits you, and the two of you start arguing. You are about to have a fight when your girlfriend asks you to leave.

b. dom: MAN IX_a IX_1 $_1$COMMUNICATE$_{3a}$ $_1$FIGHT.CON$_{3a}$ GIRLFRIEND $_{3b}$ASK$_1$
NEG_O
n-dom: $_3$CL(G): 'move'$_1$
'A man hit me. We started arguing and we were about to have a fight when my girlfriend called me, thus we did not fight.'

As example (b) clearly shows, conative aspect can be realised in LIS by interrupting the articulation of the verb, which displays a reduced and unfinished movement.

3.3.2 Perfective

Perfective aspect refers to a closed and completed event. LIS can convey perfective aspect through morpho-phonological marking on the sign for the verb, or through lexical markers [LEXICON 3.3.2].

3.3.2.1 Iterative

Iterative perfective aspect refers to those events that, despite being repeated many times, are single completed events. Besides employing adverbs, LIS conveys the iterative nature of an event, action or situation through morpho-phonological modifications of the verbal sign. When expressing iterative perfective aspect, the movement of the verb is lengthened, repeated and wider with respect to the movement of the verb in its citation form. Despite their similarity, iterative aspect differs from habitual aspect [MORPHOLOGY 3.3.1.1] in displaying a slower articulation of the verb sign, marking the repetition of the event. The typical non-manual markers conveying iterative perfective aspect are furrowed eyebrows (fe) and squinted eyes (sq) produced simultaneously to the verbal sign.

fe
sq
MEET++

‘(He/she) has met (him/her) several times.’

3.3.2.2 Inceptive/inchoative

As a type of perfective aspect, inceptive/inchoative aspect encodes the starting point of an action or state, which in the end is realised. To be more specific, inceptive aspect describes the beginning of an action, whereas inchoative aspect refers to the beginning of a state.

LIS does not encode these aspects through morphological modifications of the verb. It rather employs the aspectual marker DONE occurring with the mouthing of the Italian word corresponding to ‘already’ (i.e. *già*) to express inceptive aspect (a), and the verb BEGIN to

express inchoative aspect (b). An example for each strategy is provided below.

a. FILM BEGIN DONE 
'The film is beginning.'

b. EXAM APPROACH IX_1 BEGIN FEEL_PANIC 
'The exam is approaching, and I am starting to panic.'

3.3.2.3 Completive

Completive aspect is marked in LIS through the lexical manual sign DONE [LEXICON 3.3.2], which defines that the event is completed.

G-I-A-N-N-I HOUSE BUY DONE 
'Gianni has bought a house.'
(recreated from Zucchi et al. 2010, 199)

3.4 Modality

In [LEXICON 3.3.3], we listed the manual markers of deontic and epistemic modality. Generally speaking, deontic modality conveys obligation, prohibition, necessity, recommendation, ability, permission, intention and volition. On the other hand, epistemic modality refers to the expression of the signer's judgment or evaluation about the likelihood of the event of the utterance. Signers can express their absolute certainty about the happening or not of an event (either past, present or future) based on their knowledge and evidences, or they can express their evaluations and hypotheses.

LIS encodes deontic and epistemic modality through lexical markers occurring with dedicated non-manuals, which can also spread on the entire sentence. Nevertheless, sometimes lexical signs can be dropped, and modality is encoded through non-manual markers alone. Crucially, the different non-manual markers employed specify the degree of certainty the signer has about his/her proposition. We describe the morphological strategies for deontic and epistemic modality, respectively, in the following sections.

3.4.1 Deontic modality

Deontic markers [LEXICON 3.3.3.1] in LIS can be accompanied by furrowed eyebrows (fe) and/or head nod (hn). Sometimes, the manual deontic marker can be dropped, and the non-manual markers spread on the verbal sign. In the example below, permission is encoded through head nod produced over the verb, in the absence of a manual deontic marker.

Context: you are driving, at the signal STOP you must stop the car. What do you do next?

cond _____ hn
LOOK_RIGHT LOOK_LEFT bare CL(unspread 5): 'car_move'
'You look to the right and to the left. If the road is empty, you are allowed to move ahead.'

Often, morphological modifications concern the deontic marker itself. In the example below, the modal MUST displays a slower and repeated articulation in order to emphasise the obligation being conveyed.

NO TODAY MUST++
'No, you have to do it today!'

3.4.2 Epistemic modality

The manual signs encoding epistemic modality in LIS [LEXICON 3.3.3.2] can display different non-manual markers, yielding different semantics. In general, we can distinguish between epistemic certainty and epistemic possibility. Certainty is mainly associated to furrowed eyebrows (fe) and head nod (hn). On the other hand, possibility can either involve squinted eyes (sq) or raised eyebrows (re) and head nod, sometimes associated to mouth corners down (md), depending on the confidence the signer has about the truth of the utterance and/or the likelihood of the event. Non-manual markers are mainly produced in correspondence to the epistemic manual markers, though they can sometimes spread on nearby signs.

Epistemic certainty is encoded through furrowed eyebrows and a strong head nod simultaneously articulated over the manual sign BE_ABLE. In so doing, the signer expresses his certainty about the likelihood of the event, since he knows that the external conditions allow its realisation. This is illustrated below.

fe
hn
IX$_1$ FRIEND POSS$_1$ IX$_1$ LOOK_FOR IX$_1$ FIND BE_ABLE 
'I can find the friend I have been looking for.'

In order to emphasise the certainty about the ability of someone/something to perform an action, due to favourable external conditions, the sign BE_ABLE can be reduplicated and marked by repeated head nod, furrowed eyebrows and slightly puffed cheeks (pc). In the example below, we see that head nod and furrowed eyebrows are spread on the whole utterance, yielding the signer's certainty that the friend is able to come because he already knows the way.

pc
fe
hn
FRIEND COME BE_ABLE++ 
'I am sure my friend is able to come.'

Crucially, epistemic certainty can also be encoded by means of non-manual markers alone modifying the verb sign. In the example below, we see that the verb PASS is marked by a strong head nod and furrowed eyebrows.

fe
hn
LUCA EXAM PASS 
'Luca will surely pass the exam.'

On the other hand, epistemic possibility encoding the judgment or evaluation about the likelihood of the event is expressed through different clusters of non-manual markers, yielding different degrees of feasibility.

Squinted eyes usually encode the doubts of the signer about the possible realisation of the event in the utterance. In the example below, these non-manuals spread on the entire sentence, conveying the signer's uncertainty.

sq
FRIEND IX$_1$ LOOK_FOR FIND BE_POSSIBLE(1) 
'I (think) I can find the friend I am looking for.'

Raised eyebrows and mouth corners down, usually combined with a head tilt backwards (ht-b) are used to express that the event is possible but the signer is not sure about that due to lack of information. The non-manuals can occur with the epistemic markers BE_POSSIBLE(1) and BE_POSSIBLE(2) and spread on the whole sentence.

ht-b
re
md
FRIEND POSS$_1$ COME BE_POSSIBLE(1)

'I think my friend can come.'

Head nod, sometimes associated to raised eyebrows, yields a higher degree of possibility of the event due to the circumstances. The head nod usually occurs with the epistemic marker, but it can also spread on the preceding or following signs, as in the examples below.

hn
re
a. dom: LETTER IX(dem)$_a$ MOTHER WRITE BE_POSSIBLE(1)

n-dom: LETTER$_a$----------
'It is possible that my mother wrote this letter.'

hn
b. DATE TWO^FIVE DECEMBER TRAIN IX PLACE EMPTY BE_POSSIBLE(2)
hn
PALM_BACK

'It is possible to find free seats on the train on December 25th.'

Note that in (b) the signer articulates a final manual marker, glossed PALM_BACK, encoding that the event is possible due to the circumstances, but the signer has no evidence for it at the time of the utterance.

3.5 Negation

Negation in LIS is mainly conveyed through negative markers and n-words [SYNTAX 1.5.1.1], whose syntactic features are analysed in [SYNTAX 1.5.1.2]. However, there are some instances of negation as inflectional category, which will be explored in the next sections. Negation as inflectional category refers to the morphological modifications that predicates or sentences can undergo in order to convey negation,

besides employing lexical negative markers. Specifically, LIS verbs can i) incorporate negative elements, ii) be marked by specific non-manual markers or iii) display a completely different form to convey their negative counterpart.

3.5.1 Regular negation

The present section concerns those processes modifying the morphology of verb signs in order to convey negation. These processes are considered instances of regular negation in that the negative features incorporated remain visible. We will see that these processes can be conveyed through both manual and non-manual markers.

3.5.1.1 Manual markers

Manual markers of negation refer to instances of incorporation of a negative element within the articulation of the verb sign, which however remains identifiable. Incorporation can be either a sequential or simultaneous process. In sequential incorporation, the negative morpheme NOT combines with the verb stem. This is illustrated for the verbs KNOW (a), BE_ABLE (b) and WANT (c). The typical negative headshake (hs) occurring with the marker NOT can spread on the preceding verb stem.

a. hs
KNOW^NOT
'Do not know'

b. hs
BE_ABLE^NOT
'(To) not be able'

c. hs
WANT^NOT
'Do not want'

On the other hand, the modal CAN (see [SYNTAX 1.5.1.1.2] for details) allows the simultaneous incorporation of the negative element NOT. As we can see from the example below, the sign for the modal CAN (a) is a symmetrical two-handed sign articulated with both hands closed in the neutral space, displaying a short movement downward. To con-

vey the negative meaning, a left-to-right rapid movement is added, together with the typical negative non-manual marker. The resulting sign is CAN^NOT (b).

a. CAN

b. hs
CAN^NOT
'Cannot'

3.5.1.2 Non-manual markers

In general, in LIS negative non-manual markers alone cannot negate a predicate or a whole sentence, they must be articulated with a manual negative marker or n-words [SYNTAX 1.5]. However, in some central and southern varieties of LIS, we can find negation conveyed through the typical negative non-manual marker, namely headshaking (hs) alone, occurring with the sign for the verb.

hs
CAT_a DOG_b $_b$CHASE$_a$
'The dog does not chase the cat.'

3.5.2 Irregular negation

Irregular negation refers to those instances in which verbs display a completely different form for their negative counterpart. In such signs, the negative element cannot be identified and distinguished from the lexical verb. For these reasons, they are also referred to as opaque irregular negatives [SYNTAX 1.5.1.1.2]. In LIS, we find several examples. The negative counterpart of the positive existential glossed EXIST (a), which in LIS also corresponds to the verb 'have' [SYNTAX 2.1.5], is a manual sign that is completely different from its positive counterpart. This sign, EXIST.NOT (b), is marked by the specific non-manual marker for negation, i.e. headshaking (hs).

a. EXIST
'There is'
'(To) have'
'(To) exist'

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

To realise the negative counterpart of WANT (a), LIS employs the sign WANT.NOT, occurring with the non-manual marker for negation (b). See how they differ in the examples below.

a. WANT 

hs
b. WANT.NOT 
'Do not want'

Note that this negative irregular form (b) is a variant of the regular negative modal WANT^NOT illustrated in [MORPHOLOGY 3.5.1.1].

One further example is provided by the verb LIKE (a), whose negative counterpart is the sign LIKE.NOT, which is lexically specified for furrowed eyebrows (fe) and tongue protrusion (tp) (b). Notice that LIS employs the same sign for the verb WANT and the verb LIKE, but LIKE displays a slower articulation.

a. LIKE 

fe
tp
b. LIKE.NOT 
'(To) dislike'

To convey that an event has not taken place or it has not been completed, LIS employs a specific manual marker NOT_YET (b), which is considered a negative completive/perfective marker [LEXICON 3.3.2], namely it is the negative counterpart of the aspectual marker DONE in (a), (which cannot co-occur with negation).

a. DONE 

b. NOT_YET 

The deontic negative counterpart of the sign BE_ABLE (a) conveying ability [LEXICON 3.3.3.1] is IMPOSSIBLE_PA_PA (b), which refers to a situation in which the desired result cannot be achieved despite several attempts.

a. BE_ABLE

'(To) be able'

hs
b. IMPOSSIBLE_PA_PA

'(To) not be able'

The negative counterpart of the sign BE_ABLE (a) encoding epistemic certainty [LEXICON 3.3.3.2] is IMPOSSIBLE_NO_WAY (b). This indicates that there is no possibility at all that the event can happen due to absence of favourable conditions.

a. BE_ABLE

'Can'

hs
b. IMPOSSIBLE_NO_WAY

'(To) be absolutely unlikely to happen'

Information on Data and Consultants

The descriptions in this chapter are based partially on the references below and on the elicitation of new data. The linguistic data illustrated as images and video clips have been checked through acceptability judgments and have been reproduced by Deaf native-signing consultants involved in the SIGN-HUB Project.

Authorship Information

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Glossary of grammatical terms

Action role shift
Also called constructed action, action role shift is a construction where the signer takes the role of another character. Under action role shift, the signer may shift his/her body toward the position associated to the character and his/her facial expressions indicate how the character feels and his/her gestures reproduce those produced by the character.

Adjective
An adjective is a lexical element that typically specifies a property and that can modify a noun (e.g. clean, red in English).

Adjunct
An adjunct is an optional constituent that is not selected by any other word present in the sentence. Rather, an adjunct is attached to some other constituent of the sentence, modifying its meaning. As such, adjunct is opposed to argument. An adjunct can be a word or a phrase (including clauses). For example, in the sentence "Ada left quickly at five because she was tired", 'quickly' is an adverbial adjunct; 'at five' is a PP adjunct (or an adjoined prepositional phrase), and 'because she was tired' is an adjoined clause. Besides their category, adjuncts are also distinguished according to the constituent they attach to. For example, the sentence 'Ada prefers to look at boys with glasses' is ambiguous due to the constituent the PP adjunct 'with glasses' is attached to. It can either be attached to 'boys', or to some larger constituent including the verb.

Adposition
Prepositions and postpositions, together called adpositions, are a class of words expressing spatial or temporal relations or marking semantic roles. They typically combine with a noun phrase or a pronoun. A preposition comes before its nominal complement; a postposition comes after its complement. In sign languages an adposition marks the (usually spatial) relation between two items.

Adverbial
An adverbial is a constituent that is simplex or complex in form and that functions as an adverb; sometimes used interchangeably with simplex adverb.

Affirmative sentence
An affirmative or positive sentence is a declarative sentence used to express the validity or truth of a basic assertion. As such, it is opposed to a negative sentence. This dimension is often referred to in grammar as polarity.

Affixation / affix
Affixation is a word formation process by which a base (a stem or root) is extended by additional bound material; the items attached in this way are called affixes, they may come before or after a base, break up the base, or appear suprasegmentally.

Agreement
Agreement is an asymmetric relation between two or more constituents, by which one inherits the formal features of the other. For example, in the sentence 'Girls now are moving forward', the copula BE agrees with the subject 'girls' in number (plural) and person (third). This syntactic relation is morphologically expressed in English through verbal inflection, hence the form 'are'. In sign languages, agreement is often expressed through spatial modification.

Agreement verb
An agreement verb is a verb that is lexically defective (i.e. unspecified for one phonological feature) in that it requires syntactic agreement with a person or a locus to be realized.

Alignment
Alignment refers to the temporal coordination of different articulations; e.g. alignment of a non-manual marker with a string of signs, or alignment of various non-manual markers with each other.

Allomorph
Allomorphs are affixes or stems that are identical in meaning but have different phonological forms and are in complementary distribution; allomorphs are variants of the same morpheme.

Allophone
Variants of the same underlying phoneme that are either in complementary distribution or in free variation.

Anaphora
Expression that is referentially dependent on another expression previously mentioned in the context (i.e. the antecedent). In the following example, the pronoun he is co-referent with the antecedent a man: 'Mary saw a man. He was walking home.' Typical anaphoric expressions are pronouns or definite noun phrases.

Antecedent
The antecedent is the expression an anophora is co-referent with, i.e. the anaphora refers back to the referent of the antecedent.

Argument
An argument is a constituent that completes the meaning of a predicate. Most predicates take one, two, or three arguments. For example, the verb 'to run' takes one argument (the subject, as in 'Ada runs'); the verb 'to destroy' takes two arguments (the sub-

ject and the object, as in 'the typhoon destroyed the beach'); the verb 'to send' takes three arguments (the subject, the object and the indirect object, as in 'Ada sent a present to her brother'). Arguments are often associated to verbs, but other syntactic categories can take arguments as well, or select them. For example, the noun 'destruction' can be said to select two arguments, as in 'the destruction of the beach by the typhoon', or the Adjective 'proud' can be said to select two arguments, as in 'Nico (is) proud of Ada'. Arguments must be distinguished from adjuncts, which are never selected and thus optional.

Argument structure
Argument structure refers to the syntactico-semantic frame of predicates (typically verbs, but also nouns, adjectives or prepositions) and indicates the participants in the action or state denoted by that predicate. Argument structure typically includes the number of arguments a lexical item takes (e.g., the participants in the event denoted by a verb), their syntactic category, and their semantic relation to this lexical item.

Article
An article (or determiner) is a functional element that combines with nouns and that specifies features such as number, gender, definiteness, and closeness/distance (e.g. the, a, that in English).

Aspect
Aspect describes the internal temporal structure of an event or situation as reflected in a sentence or verb (e.g. repeated occurrence of an event).

Assimilation
Assimilation is a phonological process whereby the form of a phoneme is influenced by properties (features) of an adjacent phoneme; if the source of assimilation precedes the target, we speak of progressive assimilation, if it follows the target, we speak of regressive assimilation.

Atelic
Atelic eventualities do not contain an end point as part of the event description.

Attitude role shift
Attitude role shift, also called constructed discourse, is a construction where the signer reports utterances or thoughts of another person (the character) and typically does so by rotating his/her body toward the position associated to the character. Attitude role shift is usually accompanied also by a change in head position and eye gaze.

Auxiliary
An auxiliary is a semantically weak verb that combines with a lexical verb and expresses grammatical features like tense, aspect, and agreement (e.g. have and be in English); the lexical verb usually appears in a fixed (e.g. infinitival or participial) form.

Back-channeling
Back-channeling is a discourse strategy by which an addressee provides feedback without interrupting the speaker's/signer's flow; back-channel signals can be manual/vocal (e.g. hmmm) or non-manual (e.g. head nod).

Blend
A blend is a word formation process by which two otherwise independent stems or words merge by losing some of their phonological features to form a new item with a new meaning, e.g. English smog is a blend of smoke and fog.

Borrowing
Borrowing refers to the integration of a lexical item or expression from one language into the lexicon of another language (e.g. German borrowing English computer); borrowed elements may undergo certain phonological changes.

Boundary marker
A boundary marker is a linguistic signal that marks the start or end of a (mostly syntactic or prosodic) domain; can be manual or non-manual.

Buoy
A buoy is a sign articulated by the non-dominant hand, which may be held in space while the dominant hand continues signing; a buoy may be referred to (e.g. pointed at) by the dominant hand.

Calque
A calque is an item which in its entirety, or part-by-part, is borrowed directly from the donor language; Calques are verbatim translations of simplex or polymorphemic forms and are modeled on the constructions of the donor language.

Causative
A causative is a construction that indicates that an agent causes someone or something to do or be something, or causes a change of state. Prototypically, it brings a new argument, the causer, into a clause, with the original subject becoming the object, as in 'John makes Mary cry' vs. 'Mary cries'. All languages have ways to express causativization, but they differ in the means they employ. Many have lexical causative forms, such as English 'raise' vs. 'rise'; Other languages have morphological inflections that change verbs into their causative form. Other languages, and sign languages among them, employ periphrasis with the use of an auxiliary.

Citation form
A citation form is the basic form referring to the dictionary entry of a lexeme. As lexemes are abstract objects, citation forms make it possible to refer to a lexeme.

Classifier
Generally, a classifier is a morpheme that reflects certain semantic properties of a referent; for sign languages, a classifier is a visually motivated (iconically based) lexical/grammatical category, mostly a handshape that combines with certain types of predicates.

Classifier construction
A classifier construction is a complex sign that encodes information about spatial localization and (manner of) motion and that is part of the non-core lexicon.

Classifier predicate
A classifier predicate is a complex predicate made up of a classifier and a verb.

Clause
A clause is the smallest grammatical unit that can express a complete proposition (i.e. a statement that can be either true or false). Typically, it consists of a subject and a predicate, which in turn is prototypically a verb phrase, a verb and its internal arguments.

Cliticization
Cliticization refers to a process whereby a functional element phonologically attaches to a lexical element such that a single prosodic word is created (e.g. English can't and French j'aime); the functional element is referred to as a clitic.

Coalescence
Coalescence refers to a special type of cliticization; most commonly, cliticization of an indexical sign to a preceding symmetrical two-handed sign, such that a single prosodic word is created.

Code-switching
Code-switching refers to a (usually bilingual or multi-lingual) language user's switching between two languages or registers during communicative interaction.

Coherence
Coherence is the semantic continuity of a text or discourse which is determined by semantic and conceptual relations between its parts.

Cohesion
Cohesion are grammatically realized relations in a text or discourse that are used to explicitly link different parts of discourse. Cohesive devices make it possible for the addressee to keep track of the discourse referent.

Common noun
A common noun is a noun that denotes a class or type of entity; a common noun can be a count noun (e.g. book in English) or a mass noun (e.g. rice in English).

Comparative/comparison
Comparison introduces orderings between two or more objects with respect to the degree to which they possess some property. In the prototypical case, a comparison involves two objects that are explicitly expressed ('John is taller than Mary'). However, comparison can be more implicit (in 'John is tall' John's height is evaluated with respect to a contextually determined degree of tallness). Many languages have one or more syntactic constructions specifically encoding a comparison.

Complement clause
A complement clause, or object clause (also called completive) is a subordinate argument clause carrying the syntactic function of an object, as 'that she would do it' in 'Ada promised that she would do it'.

Complementizer
A complementizer is a functional word or a particle introducing a subordinate clause, such as that in English as in "John knows that he is lucky." It is often abbreviated as C.

Complex movement
A complex movement is a movement composed of a change in more than one phonological parameter (e.g. simultaneous change of location and handshape).

Compounding/Compound
Compounding is a word formation process by which two otherwise independent stems or words come together to form a new item with a new meaning; the result is a compound.

Conjunction
A conjunction is a functional element that links phrases, clauses, or sentences; coordinating conjunctions (e.g. English and, but) have to be distinguished from subordinating conjunctions (e.g. English that, because).

Constituent
A constituent is a word or a group of words which function(s) as a single unit within a given syntactic structure. The constituent structure of a sentence can be identified using constituency tests. Typical constituents phrases that can be distinguished according to their category in noun phrases (NP), verb phrases (VP), Adjectival phrase (AP), Adverbial Phrase (AdvP) and the like.

Constituent negation
Constituent negation refers to a type of negation whereby a constituent smaller than the clause is negated, e.g. negation of the verb in I didn't steal the book, I borrowed it.

Contact (in the sense of language contact)
Language contact refers to the circumstances determined by two language communities living side-by-side that allow linguistic patterns and words from one to be used in the other.

Contact (in the sense of phonology)
Contact refers to an articulator physically touching another articulator, a body part, or the torso, or the appearance of an articulator in a location.

Context
The context of an utterance consists at least of the speaker, the addressee, the time and the place of the utterance. Broader definitions of context may also include information about the previous discourse and the communicative situation, shared background knowledge and shared world knowledge among other kinds of information.

Contralateral
Contralateral refers to a location/area on the side opposite of the active articulator.

Control verb
The term control refers to the constructions in which the understood subject of a nonfinite embedded clause is determined by some expression in the main clause. Control verbs (such as promise, order, try, ask, tell, force, yearn, refuse, etc.) obligatorily determine which of their arguments in the main clause controls the embedded clause. Some of them qualify as subject control verbs. 'Promise' is an example, as in 'Ada promised to leave', where the understood subject of 'leave' is obligatorily interpreted as the main subject. Some are object control verbs. An example is 'order', in 'Ada ordered Auguste

to leave', where the understood subject of the infinitive is obligatorily interpreted as the object of the main verb, 'Auguste'. Arbitrary control occurs when the controller is understood to be anybody in general, as in 'Running is good for health'.

Conversion
Conversion (also called zero affixation) is a category-changing process, where the input and output categories are phonologically identical, i.e. where there is no overt affix that bears the information of category change (e.g. walk (N) and walk (V), put (present tense) and put (past tense) in English).

Coordination
Coordination is a non-hierarchical combination of at least two constituents belonging to the same syntactic category, such as noun phrases, verb phrases or clauses, either through conjunction or juxtaposition

Copula
A copula is a word used to relate the subject of a sentence with a non-verbal predicate, such as the word 'is' in the sentence 'Ada is nice'. It is often a verbal element, but it can also be pronominal in nature or suffixal. Many languages have one main copula, others have more than one, and some (including many sign languages) have none.

Correlative
Correlatives are conjunctions that are separated in a sentence but coordinate the constituents they introduce, which have thus the same function. Examples of correlatives in English are. 'both… and', or 'either ..or'. The same term can also be used to refer to the constituents themselves that are coordinated in a correlative structure. For example, 'Ada' and 'Maya' are two correlative noun phrases in 'Both Ada and Maya love to play'. Similarly in 'Either you call or you write a letter", the two clauses can be referred to as correlative clauses. Correlative constructions can also be found in some languages as the functional equivalent of relative clauses: 'the boy was late, that boy called' meaning 'The boy who was late called'.

Co-speech gesture
A body movement, executed by the hand(s) or another body part, that accompanies speech, often to illustrate, supplement, or accentuate the message conveyed in speech; e.g. pointing gesture, thumbs-up gesture, headshake, shrug.

Count noun
A count noun is a noun that can appear in the plural and that may combine with numerals like three but not with quantity expression like much (e.g. book, horse).

Declarative
Declaratives are the most common type of sentences in any given language. They are used to express statements, to make something known, to explain or to describe. As a sentence type, they are usually opposed to interrogatives, imperatives and exclamatives. The corresponding declarative force is specialized to provide new information. Declaratives are typically used to realize assertional speech acts.

Definiteness/Indefiniteness
Definite expressions are noun phrases that denote referents that have the property of being unique ("The book is on the table", where there is just one relevant book in the

context of utterance) or the property of being familiar both to the signer and to the addressee. Indefinite noun phrases denote referents that are not known to the signer but can be known to the addressee.

Deixis
Deixis is a strategy to refer to objects present in the actual context of utterance. Deictic expressions can refer to concrete entities ('I', 'you', 'that (one)') as well to the spatiotemporal coordinates of the context of utterance ('here', 'now', 'yesterday').

Demonstrative
A demonstrative is deictic word (a type of determiner) that specifies which entity a speaker refers to and distinguishes this entity from others; they may e.g. be used for spatial deixis (e.g. English this vs. that).

Deontic modality
Deontic modality refers to the speaker's attitude towards the possibility or necessity of an event, embodied in the notions obligation, permission, prohibition, wishing, desiring, etc.

Derivation
Derivation is a lexical word formation process that creates a new lexeme, mostly by combining a stem and an affix.

Derivational affixation
Derivational affixation is a type of affixation whose function is to create a lexeme associated with an already existing lexeme (e.g. -er in swimm-er); derivational affixation contrast with inflectional affixation which exists solely for grammatical purposes (e.g. agreement morphology).

Determiner
A determiner (or article) is a functional element that combines with nouns and that specifies features such as number, gender, definiteness, and closeness/distance (e.g. the, a, that in English).

Discourse
A discourse is formed by a sequence of logically united utterances, which are also connected to the context.

Discourse marker
Discourse markers are cohesive devises between two utterances (such as connectors or discourse particles) that establish coherence.

Discourse structure
Discourse structure describes the relations between grammatical elements and their effects beyond the sentence level.

Ditransitive
A ditransitive verb is a verb which takes a subject and two objects corresponding to a theme and a recipient. These objects may be called direct and indirect, or primary and secondary. An example of a ditransitive verb in English is 'send', as in 'Ada sent a letter to her friend'.

Domain marker
A domain marker is a phonological signal that spans over an entire prosodic or syntactic domain; can be manual or non-manual.

Dominance reversal
In a dominance reversal, a signer uses his non-dominant instead of his dominant hand for signing; a dominance reversal may be phonologically (e.g. articulatory constraints) or pragmatically motivated.

Dominant hand
The dominant hand is the preferred hand of a signer, i.e. the hand s/he would normally use to articulate one-handed signs.

Doubling (syntactic)
Syntactic doubling refers to the repetition of a morpho-syntactic constituent within a sentence; e.g. doubling of a wh-sign.

Dual
One of the values of the feature number that indicates 'two' of an entity.

Ellipsis
Ellipsis refers to the omission from a clause of one or more words that are nevertheless understood in the context of the remaining elements. There are numerous distinct types of ellipsis, according to the nature of the omitted constituent and to the syntactic context where it occurs. Some of the most common types are briefly described below.
Gapping occurs in coordinate structures: material that is present in the first conjunct can be omitted, i.e. 'gapped', from the second conjunct. The gapped material usually contains a finite verb, as in 'Nico plays the piano and Phil the trumpet'.
VP ellipsis omits a non-finite VP. The ellipsis site must be introduced by an auxiliary verb or by the particle to, as in 'Phil played today, and Ada will tomorrow'.
Sluicing elides everything from a direct or indirect question except the question word, as in 'Ada will call someone, but I don't know who'.

Embedded clause
An embedded, or dependent, clause is a clause that is dependent from another clause in a given sentence. It can be an argument clause or an adjunct (or adverbial) clause.

Embodiment
In the context of role shift, embodiment is understood as a phenomenon whereby the actual signer (i.e. the narrator) of a text or discourse uses his/her body as one of the interlocutors or agents in the narrated discourse.

Entity classifier
An entity classifier (also called whole entity or semantic classifier) is a classifier (handshape) which reflects shape properties of the subject of an intransitive clause (e.g. a car moving).

Epistemic modality
Epistemic modality refers to the speaker's belief or knowledge about an event, embodied in the notions of knowing, believing, assuming, etc.

Ergativity
Ergativity refers to a system of marking grammatical relations in which intransitive subjects pattern together with transitive objects, and differently from transitive subjects. Ergativity may be manifest, for example, in terms of morphological case marking on nominals, or patterns of agreement on the predicate. An example of an ergative language is Basque.

Event structure
Event structure or situation type refers the internal temporal structure of eventualities and it is also known under other denominations like Aktionsart, actionality or inner aspect.

Evidentiality
Evidentiality is a grammatical category used to mark the source of information. Evidential markers typically distinguish between the following sources of information: (i) visual, (ii) sensory, (iii) inference, (iv) assumption, (v) reported and (vi) quotative.

Exclamative
An exclamative is a grammatical form specialized to convey surprise, denoting that all or some part of the utterance is unexpected, as in 'What a beautiful day!'. It is one of the four well-recognized sentence types, together with declaratives, interrogatives and imperatives. The corresponding exclamative force is specialized to convey a surprise. Declaratives are typically used to realize assertional speech acts. Unlike the other assertions, questions or commands, exclamations are expressive speech acts that are not used to ask the speaker to do something.

Exhortative
An exhortative construction is a construction used to express an order or an invitation including other participants other than the addressee, and typically the first and third person ('Let us go!').

Existential clause
An existential clause is a clause that refers to the existence or presence of something. Examples in English include the sentences 'There is bread in the kitchen' and 'There are three pencils on the desk'. Many languages form existential clauses without any particular marker, simply using forms of the normal copula, the subject being the noun (phrase) referring to the thing whose existence is asserted.

Expressive meaning
Expressive meaning is the meaning that is conveyed but not actually said, i.e. expressive meaning is typically due to some kind of pragmatic enrichment. Expressive meaning does not contribute to the truth-conditional meaning of an utterance.

Extended exponence
Extended exponence is a concept related to morphology whereby two markers occurring in different places in a word or phrase belong to the same morpheme; i.e. two separate units realizing a single function.

Extraction
Extraction refers to any syntactic operation responsible for the displacement of a word or a constituent from the position within a larger constituent where it is interpreted. For example, we can say that 'who' is extracted from the object position of the embedded clause in 'Who do you think Ada will call?'.

Extraposition
Extraposition is a mechanism of syntax altering word order in such a manner that a relatively "heavy" constituent appears in a position other than its canonical position, usually to the right. The relative clause 'which was addressed to Ada' is extraposed in the following sentence: 'A letter arrived yesterday which was addressed to Ada'.

Fingerspelling
Fingerspelling refers to the use of handshapes from the manual alphabet to represent (part of) a word, often because no sign exists for the concept; in fingerspelled sequences certain reduction and assimilation phenomena may occur.

Finite clause
A finite clause is a clause with a finite verb.

Floating quantifier
A floating quantifier is a quantifier that is not immediately adjacent to the NP it quantifies. French 'tous' (all) in 'les étudiants ont tous lu ce livre' (the students have all read this book) vs 'Tous les étudiants ont lu ce livre' (all the students have read this book) is an example.

Focus
A focus is an item that is presented as a new piece of information in the context of utterance. Entire sentences can be a focus, for example when they are used as opening lines in a conversation. In other cases, only a part of the sentence is new information, for example the constituent War and Peace is a focus in the following question-answer pair: "Which book did you read? I read War and Peace". Focus can be contrastive or emphatic, as the constituent Anna Karenina in the sentence "I am not reading War and Peace, I am reading ANNA KARENINA".

Free relative
A free relative clause is a relative clause not containing any (overt) antecedent, or head, as 'what you will read' in 'I will read what you will read'. In many languages, free relatives are introduced by a wh-element, as 'what' in the English example.

Functional element/category
A syntactic category that has grammatical meaning rather than lexical or encyclopedic meaning and that fulfills a syntactic function (e.g. negation, tense, number).

Gapping
Gapping is a type of ellipsis occurring in coordinate structures: some material that is present in one conjunct is omitted, i.e. 'gapped', from the other conjunct. The gapped material usually contains a finite verb, as in 'Nico plays the piano and Phil the trumpet'.

Gender
Gender is a grammatical (morphosyntactic) category that classifies nouns in terms of their (real or assumed) semantically shared properties in some languages; in others, the classification can be somewhat arbitrary.

Gloss
Explanation/rendering of a morpheme or word in a text by means of providing a literal translation in another language (usually English).

Grammatical function
Grammatical function refers to the syntactic role of a constituent in a given syntactic structure, such as subject or object. It is independent from the category of that given constituent and rather depends on its position in the structure.

Grammatical word
A grammatical word is a free form composed of a root and morphosyntactic features (inflection), which enables it to be used in a syntactic context; the morphosyntactic features can have overt expressions, or they can be phonologically null.

Grammaticality judgment
A grammaticality judgment is a metalinguistic assessment of the acceptability of a given utterance by a native speaker. Grammaticality judgments are typically used in linguistic research to gather negative evidence about what the grammar cannot generate, alongside with what is actually produced.

Grammaticalization
Grammaticalization refers to a process by which an independent lexical form diachronically develops into a free or bound functional (grammatical) element; e.g. in English development of future tense marker from the verb go.

Head of a word
The head of a word is the element which provides the label for the categorial status of a word or compound, thus determining whether it is a noun, verb etc. The concept of head presupposes asymmetrical (head-complement or head-modifier) structures.

Headedness
Headedness is the property that distinguishes symmetrical from asymmetrical constructions in morphology, used usually in compounding. Symmetrical constructions are usually considered headless, while asymmetrical constructions have a syntactic head (and a complement or modifier).

Homonym
Two or more words that are phonologically identical but have different meanings, causing lexical ambiguity.

Iconicity
Iconicity implies a non-arbitrary (motivated) relation between form and meaning, i.e. a phonological form reflects in some way the assumed visual (or auditory) characteristics of the entity or event it refers to; the form of the category/construction is then iconic.

Illocutionary force
The illocutionary force of an utterance depends on the speaker's intention in producing that utterance and the corresponding syntactic structures he/she uses to reach this goal. Declarative, interrogative, imperative and exclamative sentences are linguistic structures that are typically used to perform the illocutionary acts of making an assertion, eliciting information from the addressee, eliciting a behavior from the addressee and conveying a surprise.

Imperative
An imperative is a grammatical form that is specialized to elicit a (possibly non-linguistic) behavior from the addressee, as in 'Go away!'. It is one of the four well-recognized sentence types, along with declaratives, interrogatives and exclamatives. The corresponding imperative force is specialized to elicit a specific behavior of the addressee. Imperatives are typically used to realize commands or requests.

Impersonal verb
An impersonal verb is a verb whose argument structure does not include an external argument. For example, 'seem' in 'It seems that Ada is growing' does not assign any interpretation to 'it', which is a pure place holder, or expletive subject.

Implicature
Implicatures are context-dependent pragmatic aspects of the meaning of an utterance that do not contribute to the truth-conditional meaning of an utterance (what is said) but to the pragmatic meaning of this utterance (what is meant). Conversational implicatures are calculated on the basis of conversational maxims.

Incorporation
A complex verb formed by the syntactic combination of a verb with a noun (noun incorporation) or another verb; in sign languages often used for the combination of a verb and a classifier or of a noun and a numeral (numeral incorporation).

Indefinite pronoun
An indefinite pronoun is a pronoun that stands for an entity without specifying any grammatical (morphosyntactic) features such as number (e.g. someone in English).

Indirect question
An indirect question is a question, or interrogative, sitting in an embedded position, as 'when she should leave' in 'Ada asked me when she should leave'. An indirect question is typically embedded under a declarative.

Inflection
Inflection is a type of word formation which is to some extent dependent on a syntactic structure and involves morphosyntactic features such as e.g. person, number, and tense.

Information structure
The term information structure refers to the way in which information is packaged within a sentence. For example, the information conveyed by an utterance can be divided in old vs. new information and within a sentence it is possible to identify a constituent that is a topic and a constituent that is focus.

Initialization
Initialization is a sign language-specific type of word formation (compounding) whereby the handshape of a lexeme is the handshape of the manual alphabet representing the first letter of the corresponding word in the spoken language (e.g. the sign lemonade with a C-handshape).

Interrogative
The term interrogative refers to a grammatical form that is specialized to elicit information from the addressee, as in 'What have you done?', or to report a doubt or a similar attitude towards a given propositional content, as in 'I wonder what you did'. The corresponding interrogative force is specialized to elicit information from the addressee. Interrogatives are typically used to realize a question.

Intonation
Intonation refers to the totality of the prosodic phenomena that accompany the segmental part of strings (i.e. stress, pitch, and pause), marked mostly through non-manual articulations (such as facial expressions) in sign languages.

Intransitive verb
An intransitive verb is a verb that only takes one argument, as 'telephone' and 'arrive'. Intransitive verbs can be distinguished between unaccusatives, that only take an internal argument, such as 'arrive', and unergatives, whose only argument is the external argument, such as 'telephone'.

Ipsilateral
Ipsilateral refers to a location/area on the side of the active articulator.

Irreversible predicate
An irreversible predicate is a predicate that selects for two arguments associated with different semantic features, such as animacy. For example, typically 'eat' is an irreversible predicate, because its external argument is animate and its internal argument is inanimate. Only 'Ada eats a salad' is a meaningful sentence, while the reverse, 'A salad eats Ada' is semantically odd. Irreversible predicates are opposed to reversible predicates.

Isomorphic
The term isomorphic refers to the equivalence between the values of two sets of entities, rules etc.; e.g. in isomorphic use of space, signs are produced in a spatial configuration that corresponds to (i.e. is isomorphic with) a real-world configuration.

Juxtaposition
Juxtaposition is a kind of coordination not involving any overt conjunction, such as and, or, but or the like. Two constituents that are juxtaposed usually belong to the same syntactic category and perform the same grammatical function.

Layering/layer
In sign language linguistics, layering refers to the simultaneous (i.e. layered) use of various manual and non-manual articulators, e.g. a string of signs accompanied by a body lean, a head movement, and a specific eyebrow position.

Lexeme
A lexeme is a (semi-)abstract unit of meaning which corresponds to the basic forms in the lexicon; the actual realization of these units in language use are called 'word forms' (or sometimes simply 'words').

Lexical item
A lexical item is any item that is part of the vocabulary of a particular language, and that has to be learned in order for the language to be used.

Lexicalization
Lexicalization refers to the adoption of a particular form into the lexicon of a language; the form can be a completely novel form, or might be based on previously existing items.

Lexicon
The lexicon is the mental repository of all the vocabulary items of a language.

Loan sign
A loan sign is a sign that is of foreign origin, influenced by the spoken language or taken from another sign language.

Local lexicalization
Reduction of a fingerspelled sequence that is repeatedly used within a discourse; the phonological changes (e.g. dropping of letters, creation of movement contour) are characteristic of lexicalization.

Locus
A locus is a point in space used for grammatical purposes (e.g. pronominalization, agreement); it either is the actual location of a present discourse referent or an arbitrary location established by means of pointing or some other strategy.

Main clause
The main clause of a sentence, also called the independent clause, is a clause that is syntactically and semantically autonomous. It is thus opposed to the subordinate clause, which is syntactically and semantically dependent on the main clause.

Mass noun
A mass noun is a noun that does not usually appear in the plural and that cannot combine with numerals like three; however, it may combine with quantity expression like much (e.g. rice, milk).

Measure phrase
Measure phrases are constructions containing a noun referring to a measure of time, capacity, weight, length, temperature, currency. For example 'five months' in 'I will leave in five months', or '4 kilos' in 'I bought four kilos of strawberries'.

Metaphor
Metaphor is a general cognitive mechanism, which is important for the constitution of meaning of many expressions in everyday language. In a mataphor, two different concepts can be mapped on each other and one (typically abstract) concept is being understood through the other (typically more concrete) concept.

Metonymy
In a metonymy, one entity stands for another related entity such as a part (face) for a whole (person), a writer for his writing, a place (Paris) for an institution (French government).

Minimal pair
Two lexemes that differ from each other only in terms of a single distinctive feature, a single phoneme in spoken languages (e.g. bat and matt in English) or a single parameter in sign languages.

Modal particle
A modal particle is a particle that expresses (logical/semantic) modality (e.g. doch, ja, etc., in German).

Modal verb
A modal verb is a verb – mostly an auxiliary – that expresses (logical/semantic) modality (e.g. the verbs can, must, etc., in English).

Modality
A functional feature that indicates the speaker's level of commitment to the actuality of an event, or its desirability, necessity, possibility, etc.

Modality differences
Differences between signed and spoken languages that are due to or related to the difference in communication channel (visual-gestural vs. oral-auditive).

Morpheme
A morpheme is the smallest linguistic unit that bears meaning; it can be free (i.e. standing on its own) or bound (i.e. morphologically dependent on a stem/base and unable to be used on its own).

Morphosyntactic feature
Morphosyntactic features (also called grammatical features) are the categories of declension and conjugation (e.g. number, tense, etc.) which carry grammatical information and enable a word to be used in a particular syntactic context.

Mouth gesture
A mouth gesture is a configuration of the mouth that may accompany a sign or signs and that is not related to a word of the surrounding spoken language.

Mouthing
A mouthing is the (mostly silent) articulation of (a part of) a word from the surrounding spoken language that is either related to the sign it accompanies or specifies its meaning; occasionally, a mouthing may spread over a string of signs.

Nativization
Nativization implies the adoption of a foreign word into the native lexicon such that it conforms fully to the native phonology.

Negation
Negation is a semantic notion which is encoded by dedicated morphemes. Negation systematically changes the meaning of expressions by introducing various kinds of oppositions. Negating a proposition has the effect of reversing its truth value, i.e. of the two clauses Tim is at home and Tim is not at home, only one can be true. By contrast, constituent negation only affects the constituent in the scope of negation

Negative suppletion
Negative suppletion refers to a process whereby a negative morpheme is phonologically different from its affirmative form.

Neologism
A word (sign) or phrase that is newly formed, usually for naming new objects or states of affairs.

Neutral word order
Every language has a neutral word order, an ordering of main constituents that is pragmatically neutral and syntactically unmarked. Typically, the neutral word order for a given language is established following the following criteria: it corresponds to the ordering of constituents in declarative main clauses; both the subject and the object are nominal; it is pragmatically neutral; no element is emphatic or topicalized.

Non-concatenative morphology
The part of morphology that is about non-affixal word formation processes (such as stem modifications or templatic morphology).

Non-dominant hand
The non-dominant hand is the non-preferred hand of a signer, i.e. the hand s/he would normally only use in the articulation of two-handed signs.

Non-finite clause
A non-finite clause is a dependent clause whose verb is non-finite. Many languages can form non-finite clauses with infinitives, participles and gerunds. Like any embedded clause, a non-finite clause depends on another clause in the sentence.

Non-manual (marker)
A non-manual marker is a lexical or information-bearing unit which is expressed by articulators other than the hands; non-manual markers can have phonological, morphological, syntactic, and prosodic functions.

Non-native lexicon
The non-native lexicon is the repository (mental dictionary) of the forms that are borrowed from other languages and, in the case of sign languages, from co-speech gesture.

Number
An inflectional feature (functional category) that indicates whether the an expression refers to a single entity or to more than one entities. The most common values of the category number are singular and plural, but intermediate values such as dual and paucal also exist.

Numeral
The term ‘numeral’ indicates an item specifying the number of the entities referred to by a noun.
Numerals can be classified into three main categories: cardinals (which answer the question ‘how many?'), ordinals (which answer the question 'which in order?'), and distributive numerals (which answer the question 'how many each?').

Numeral incorporation
Under numeral incorporation, a polymorphic form (a compound) is created by simultaneous the combination of a numeral and a syntactically adjacent noun.

Parameter
Parameters are the phonological components (building blocks) of a sign: handshape, orientation, location, movement, and non-manuals.

Particle
The term particle is typically used for items that cannot be inflected (e.g. conjunctions), but it is also applied to formally dependent items (e.g. clitics) and functionally dependent items (e.g. adpositions and auxiliaries).

Parts of speech
The lexical and functional categories that are the building blocks of syntax: verb, noun, adverb, adjective, conjunction, etc. (see also syntactic category).

Passive
In a passive construction the patient (or theme) argument of a transitive or a ditransitive verb is in the subject position, the agent argument is absent or expressed optionally, and the verb or the verb phrase is marked in a special way.

Personal pronoun
Personal pronouns are pronouns that are associated primarily with a particular grammatical person – first person (as I), second person (as you), or third person (as he, she, it). Personal pronouns may also take different forms depending on number (usually singular or plural), natural gender, case, and formality.

Path movement
Path movement refers to a movement of the whole hand, be it in neutral signing space or on the signer's body.

Perspective
Perspective refers to the viewpoint from which an event is described. The event can be described from an external viewpoint (observer or narrator perspective) or from an internal viewpoint (character perspective).

Plain verb
A sign language verb that cannot be spatially modified to agree with (indicate) one or more of its arguments; plain verbs contrast with agreement verbs and a spatial verbs.

Plural
One of the values of the category number, indicating that there is more than one of an entity.

Polar interrogative
Polar interrogatives are 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'. A direct polar interrogative in English is 'Are you sick?' while an indirect polar interrogative in English is the embedded clause in 'I wonder whether you are sick'.

Politeness
The linguistic expression of the intention of a speaker to save the face of the addressee (or some other person) in communicative interaction. To express his/her intention, the speaker uses various linguistic strategies.

Possession
Possession can be viewed as the realizations of a – typical asymmetric - association or relationship between two referents. Possession comprises kinship relations, whole-part relations, ownership relations and more general associations beween possessor and possessum.

Possessive
A possessive construction is typically a noun phrase expressing a possession. It is usually articulated into the possessor (someone who possesses something) and the possessed (often referred to as possessum or possessee as well).

Postposition
See adposition

Predicate
In traditional grammaticography, a predicate combines with a subject to form a sentence, and ascribes a property to the subject referent (e.g. 'Socrates' is the subject in the sentence 'Socrates is mortal' and 'is mortal' is the predicate). Predicates combine with a certain number of dependents or participants in order to express a complete predication to refer to a particular event or situation.

Preposition
See adposition.

Presupposition
A presupposition of an utterance is some additional information that the speaker or signer assumes (or acts as if he/she assumes) in order for the utterance to be meaningful in the current context. In the sentence 'Peter stopped smoking', the use of the verb stop presupposes that Peter used to smoke.

Pronoun
A syntactic category that takes the place of a noun phrase (e.g. English I, him, mine, etc.) Personal pronouns are pronouns that are associated primarily with a particular grammatical person – first person (as I), second person (as you), or third person (as he, she, it). Personal pronouns may also take different forms depending on number (usually singular or plural), natural gender, case, and formality. Semantically, pronouns are used as cohesive devises to establish co-reference between the referent of the pronoun and the referent of its antecedent.

Proper noun
A subgroup of the syntactic category noun; proper nouns denote individuals (e.g. persons: Noam Chomsky, places: Europe).

Prosodic word
A prosodic unit that consists of at least one syllable and that may or may not be a lexical word; cliticization or compounding may yield a prosodic word.

Prosody
Elements of speech or signing that determine how we say what we say, e.g. the pauses, the prominent parts, the rhythmic chunks, tones, etc.

Purpose clause
Purpose clauses are subordinate clauses expressing the purpose of the event expressed by the main clause, as in 'We stopped driving to work in order to save money'.

Quantifier
A syntactic category that indicates quantity (excluding numerals), e.g. some, many, never. Semantically, quantifiers are operators that quantify over a set of individuals, with different interpretations depending on the meaning oft he quantifier.

Raising verb
Raising constructions involve the movement of an argument from an embedded or subordinate clause to a matrix or main clause; in other words, a raising predicate/verb appears with a syntactic argument that is not its semantic argument, but is rather the semantic argument of an embedded predicate. An example of raising verb in English is 'seem', as in 'Ada seems to be happy'.

Reason clause
Reason clauses are subordinate clauses expressing a reason for the event expressed by the main clause, as in 'I called you because I missed you'.

Reduplication
Under reduplication, a morphological process is realized by repeating (part of) a stem.

Reference
Reference is the symbolic relationship between a linguistic expression and a concrete or abstract entity that it represents. The reference of an expression is the set of entities that the expression denotes.

Reference tracking
Reference tracking has to do with specifying the referents' identity in a text or discourse, i.e. with signaling which discourse referent we are talking about. Languages use various morphosyntactic devises such as pronouns or verbal agreement and pragmatic principles such as accessibility and salience to specify a referent in a discourse context.

Reflexive
A construction where the agent and another thematic role bearing argument refer to the same entity (e.g. He washes himself); a reflexive pronoun is a pronoun that refers to the agent (e.g. himself).

Register
The term register describes all kinds of linguistic variation that depends on the communicative situation or the specific purpose of communication.

Resumptive
A resumptive pronoun is a pronoun that refers back to a previously realized item within the same syntactic structure. Resumptive pronouns are often found in relative claus-

es, where they refer back to the relative pronoun, as in 'This is the toy that Ada thinks that we should definitely buy it'. The use of resumptive pronouns is marginal in standard English, but completely acceptable in colloquial varieties and in many languages.

Reversible predicate
A reversible predicate is a predicate that selects for two arguments that are not necessarily associated with different semantic features such as animacy. An example of a reversible predicate is 'kiss', because both its external argument and its internal argument are indistinct with respect to animacy. Both 'Ada kissed Nico', and 'Nico kissed Ada' are thus meaningful.

Role shift
A construction where a signer assumes the characteristics of another person/animal (the character) and linguistically marks his/her utterance accordingly, commonly by rotating his/her body towards the position in space associated to the character (and by other non-manual markers); role shift is typically used in narration to report someone else's utterance (attitude role shift, also called constructed discourse) or action (action role shift, also called constructed action).

Root
A root is the part of a word that carries the main conceptual meaning expressed by that word and that cannot be segmented any further.

Scope
Scope refers to the domain over which a certain feature – be it semantic or phonological – has an effect; e.g. negation can have semantic scope over part of a sentence or the whole sentence (sentential scope), and a non-manual marker like headshake can have scope (i.e. can extend) over part of a sentence or the whole sentence.

Secondary movement
Movements of the hand that are not path movements; articulator-internal movements: handshape changes, orientation changes, and hand-internal movements like finger wiggling.

Secondary predication
A secondary predicate is an expression that attributes a property to a nominal phrase (that can be the subject or another argument of the main verb) but it is not the main predicate of the clause. In 'The boys arrived home exhausted', for example, the underlined element expresses a secondary predication on the main subject.

Sentence
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). The typical sentence contains at least a predicative nucleus consisting of a subject and of a predicate (for example, in "John is smart" the property of being smart is predicated of John and in "Mary thinks that John is smart" the property of thinking that John is smart is predicated of Mary). However, there can be elliptical sentences with a minimal structure.

Serial verb construction
The serial verb construction, also known as (verb) serialization or verb stacking, is a syntactic phenomenon by which two or more verbs or verb phrases are put together in a single clause. Serial verb constructions are often described as coding a single event.

Shared sign language
A sign language that emerged in a village community, due to an increased likelihood of deafness; often a considerable proportion of the hearing population also knows the sign language (also known as village sign language or rural sign language).

Signing space
Space in front of the signer that plays a role at different linguistic levels: phonology (location specification of lexical signs), morphology (e.g. agreement), semantics (e.g. topographic descriptions), pragmatics (e.g. reference tracking, contrast).

Simple movement
A simple movement is a movement that consists of a change in only one phonological parameter (e.g. location or orientation).

Simultaneity
The combined expression of two (or more) signs – be they manually or non-manually articulated – at the same time (by the same person).

Size-and-Shape-Specifier (SASS)
A Size-and-Shape-Specifier is a classifier(-like) item that expresses the size and shape of an entity, usually by outlining its boundaries.

Sluicing
Sluicing is an ellipsis phenomenon which elides everything from a direct or indirect question except the question word, as in 'Ada will call someone, but I don't know who'.

Small clause
A small clause is a construction that has the semantics of a clause, with its typical subject-predicate divide, but it lacks either a verb or the markers of (verbal) inflection typically associated withfinite clauses. An example is 'Ada smarter' in 'I consider Ada smarter'.

Spatial agreement
Sign languages have the option of exploiting space for agreement: the sign encoding the lexical verb is modified to include agreement with the locus in space associated with the argument(s) of the verb. Typically, the orientation and the direction of movement is modified and oriented towards the point in space associated with the external argument, the internal argument or both. Not all verbs agree in space.

Spatial verb
A verb that can be spatially modified to indicate the locative source and/or locative goal of an event, e.g. WALK (from a to b), PUT-DOWN.

Specificity
Indefinite noun phrases can specific and non-specific. An indefinite is specific when the signer, but not the addressee, knows the referent of the noun phrase. An indefinite is non-specific indefinite when neither the signer nor the addressee know its referent.

Speech act
A speech act is a linguistic act that is performed by a speaker while uttering a sentence. Speech acts can either be explicit performative or implicit performative and they are typically performed to make an assertion, a question, a command or to convey surprise.

Spreading domain
A spreading domain is a prosodic domain over which a manual or non-manual articulation is extended.

Stem
A stem (also called a base) is the morphological unit to which inflection and derivation applies.

Stem modification
A stem modification (also called stem-internal change or base modification) is a word formation process which affects the phonological form of the stem (e.g. English sing – sang – sung); stem modification may combine with affixation.

Subordination
Subordination is a principle of hierarchical organization of linguistic constituents. More precisely, the constituent A is said to be subordinate to the constituent B if A depends on B.

Subordination conjunction
See complementizer.

Suppletion
Suppletion refers to a word form which is associated with another form but has a completely or partially different phonological form, also called base allomorphy (e.g. go – went and bad – worse in English).

Suprasegmental features
Phonological or prosodic features that associate with the segmental layer of a word/sign; e.g. tone in spoken languages, non-manual features in sign languages; suprasegmental features constitute a layer on top of the segmental layer.

Syllable
A prosodic unit that is composed of a sequence of segments and that is the domain for stress assignment; in spoken languages, a syllable consists minimally of a vowel, in sign languages minimally of a movement.

Syntactic category
Building blocks of syntax; e.g. lexical categories such as noun, verb, etc., functional categories such as tense, number, etc., and phrasal categories such as Noun Phrase, Tense Phrase, etc.)

Telic
Telic eventualities are conceptualized as involving a change of state that amounts to the end point of the event described by the predicate.

Temporal clause
A temporal clause is a type of adverbial clause expressing a temporal relationship between two clauses. The time of the event in the adverbial clause can be before, after or simultaneous with the time of the event in the main clause.

Tense
Tense is a morphosyntactic category that refers to the reference time of an event with respect to utterance time. The reference time can either be identical to the utterance time, precede the utterance time (past) or be located after the utterance time (future).

Thematic role
Thematic roles encode the general semantic interpretation of an argument as a specific participant in an event/action described by the predicate. Typical thematic roles are agent, stimulus, experiencer, patient, theme, benefactive, recipient or instrument.

Topic
If the content provided by the sentence can be divided in old information and new information, a topic is the constituent that the rest of the sentence talks about. A topic can be a constituent familiar from the previous sentence but it can be a new argument of conversation. The latter case involves so-called topic shift and is a way to switch to another topic in discourse.

Transitional movement
A movement that is phonetically required to move the hand from the end point of one sign to the beginning point of the next sign, i.e. a movement that is not part of the lexical specification of either of the two adjacent signs.

Transitive
Refers to argument-taking properties of a verb; a transitive verb requires an internal and an external argument (e.g. visit, love).

Turn-taking
Turn-taking refers to a change in the role of discourse participants: from addressee to active speaker/signer, and vice versa; turn-taking signals are used to initiate turn-taking.

Unaccusative
An intransitive verb whose only argument is assigned the thematic role patient or theme instead of agent (e.g. melt, fall).

Unergative
An intransitive verb whose only argument is assigned the thematic role agent (e.g. run, swim).

Voice
The voice of a verb refers to the relation between the event expressed by the verb and the participants identified by its arguments. Typically, when the subject is the agent or

experiencer, the verb is in the active voice; when the subject is the patient or undergoer, the verb is said to be in the passive voice.

Wh-phrase
The wh-phrase is a constituent of a clause that is characterized as a question operator. A wh-phrase can be a word, as 'what' in 'What do you see ?' or an entire phrase, as 'which girl' in 'Which girl do you see?'.

Wh-question
Content interrogatives or wh-questions are used to ask the addressee to fill in some specific missing information and thus elicit a more elaborate answer than just 'yes' or 'no'. In many languages, they contain a specialized set of interrogative words or phrases that have a common morphological marking (what, which, who, why, when etc.). Since in English this marking is the morpheme wh-, these interrogative phrases are called wh-phrases, and content interrogatives are often called wh-questions.

Word
Word is a term which is sometimes used interchangeably with 'word form'; otherwise it has to be qualified by the terms 'phonological' and 'grammatical'.

Word form
A word form is the realization of a lexeme in a grammatical context; word forms carry grammatical information and are inflected for number, tense, etc.

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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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