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D2.9 State of the art of Atlas entries

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History of changes

VERSION	DATE	CHANGE	REVIEWER(S)
1.0	30/09/2017	Initial version.	Carlo Cecchetto, Jordina Sánchez Amat.

CONTENTS

1. Scope of the document

   For WP2, Task 2.2, this documents reports on the state of the art of the Atlas entries. It lists the grammatical features (i.e. the entries) that will be represented in the Atlas, clustered into the parts *Phonology*, *Morphology*, and *Syntax*. The Atlas entries for the fourth part, *Pragmatics*, are currently under development and do not occur in this document. Please note that at this time, a pilot questionnaire is finalized. The results of the pilots' evaluation might have an effect on the eventual organization of the Atlas. At the end of the document, a set of selected questions of the respective Questionnaire exemplify the type of questions we will ask in order to collect the data on the grammatical features.

2. Introduction

The Atlas of sign language structures aims to present an interactive map that shows the variation of the values of several grammatical features and their distribution across the sign languages of the world. In the Atlas, we will provide a concise description of each grammatical feature and a compilation that gives a schematic overview of the grammatical properties for each sign language.

Based on the structure of the SignGram Blueprint Manual, we list in this document the grammatical features that will be investigated in the sub-Questionnaires 1-3, i.e. "Phonology + Lexicon" (section 3), "Morphology" (section 4), and "Syntax" (section 5). Note that the ongoing work on the sub-Questionnaires is a process conducted in successive stages. Therefore, the development of sub-Questionnaire 1 ("Phonology + Lexicon") is more advanced than the development of sub-Questionnaire 4 ("Pragmatics"). We are thus able to present the extensive set of grammatical features only for the parts *Phonology, Lexicon* and *Morphology*. For the part *Syntax*, we present a set of grammatical features at an early stage of development, while for the part *Pragmatics*, we are currently discussing the grammatical features and can not list them yet. For the final Atlas, we expect a set of approximately 100 to 120 grammatical features.

In the lists below, each grammatical feature is described by a concise definition including its most relevant aspects under investigation. Where already available, we additionally present an outline of the evaluation as it can be analyzed in the online Atlas. In the final Atlas, we will make the descriptions of the grammatical features accessible to the users.

As a notational convention, '■' indicates a grammatical feature, and an arrow (→) points to an aspect that can be analyzed.

In order to exemplify the progress of feature selection, we present an excerpt of selected questions of the respective sub-Questionnaires at the end of the document (section 6). Note that the presentation of one grammatical feature (such as "agreement", for example) will be based on the analysis of several questions of the Questionnaire. Hence, there is no one-to-one relation between one question in the Questionnaire equaling one grammatical feature in the final Atlas.

3. Atlas entries – Phonology

B: Phonology

B1. Sublexical structure

■ **Handshape**

Description:

The phonological feature *handshape* is a phonetic realization of a bundle of articulatory features, a concrete realization that is always depicted in terms of the configuration of the whole hand.

Aspects that can be analyzed:

→ Provide a general inventory for each SL, namely indicate which handshapes are used in the respective sign language

The set of handshapes gives us several opportunities for different analyses, such as:

→ Number (and types) of handshapes

→ Full phonological feature description for each handshape

→ A distinction into "low complex" and "high complex" handshapes, if there is a phonological definition of low and high complex handshapes.

Aggregate data will also give:
1) size of the HS inventory
2) size of feature inventory
3) average of complexity per language
4) mode of HS
5) rarest HS
6) rarest features

→ Distinction between handshapes used in lexical signs or in classifier constructions:
- only used in lexical signs
- only used in classifier constructions
- used in both lexical signs and classifier constructions

■ Allophone handshapes

Description:

Allophones are variants of the same underlying phoneme. *Allophone handshapes* are therefore two (or more) handshapes that can both be used in a sign without causing a change of meaning. They can occur either in complementary distribution or in free variation.

Aspects that can be analyzed:

→ Differentiate between those SLs that have allophone handshapes and those SLs that do not.

→ Collecting examples of allophone handshapes in those SLs that have them together with a visual representation.

■ Orientation

Description:

The phonological feature *orientation* of signs can be characterized in different ways. In terms of articulation, the rotation of the forearm can be characterized by its extremes supine and prone, and anything in between (with neutral for the midway position). Alternatively, the absolute orientation of the whole hand can be characterized in terms of the direction, in which the palm and fingers (imagining they were fully extended) can be specified for a sign. Finally, the relative orientation refers to the side of the hand that faces the location or the end point of the path movement in a sign.

Aspects that can be analyzed:

Since there is no overt definition of orientation, we can come up with the 6 cubic orientations (palm towards signer, palm towards addressee, palm towards floor, palm towards ceiling, palm towards ipsilateral side, palm towards contralateral side).

→ Differentiation between those SLs that have all 6 orientations, those that have fewer orientations, and those that have more orientations.

→ Differentiation between those SLs, in which orientation is distinctive, and those SLs, in which orientation is not distinctive.

■ Location

Description:

The phonological feature *location* refers to spatial distinctions in signing space that are used in the lexicon. An inventory of locations include the body, the head, the arm, the non-dominant hand, and the space in front of the signer, which can be presented as a simple list of phonologically distinctive locations clustered per major area.

Research has indicated that sign languages tend to make more fine-grained location distinctions on the head (e.g. chin, side of mouth, cheek) than on the body, as the head is the area of highest visual acuity.

Aspects that can be analyzed:

→ General inventory of locations used in each SL gives us:
- the size of location inventory (many location vs few locations)
- the rarest locations
- the most common locations

→ The analysis of location metathesis, i.e. the rearranging of phonological parameters in a sign, would show us:
- SLs that can invert locations only from bottom to top
- SLs that can invert locations only from top to bottom
- SLs that can invert locations in both directions
- SLs that have no metathesis

▪ Path movement

Description:

The phonological feature *movement* of signs can be described in terms of primary or path movements and secondary or articulator-internal movements. The path movement involves movement of the whole hand (on the body or in space), while the latter consist of changes in orientation and/or hand configuration, as well as finger movements like finger wiggling.

Aspects that can be analyzed:

Here we have to think, what kind of path movements we want to provide. A search is going on to determine if an inventory set of path movements is already available.

→ General inventory of path movements used in each SL

→ Distinguish SLs with "many" different types of path movements and those with "few" different types of path movements.

→ Identify the rarest path movement.

▪ Secondary movement

Description:

Secondary movements consist of changes in orientation and/or hand configuration, as well as finger movements like finger wiggling.

Aspects that can be analyzed:

→ Distinguish SLs that have only handshape changes as secondary movement, those that have only orientation changes as secondary movement, and those that have handshape changes as well as orientation changes as secondary movement.

→ Distinguish whether only one phoneme (either handshape or orientation) can change as a form of secondary movement, or more phonemes (2+ handshapes, 2+ orientation, or hand-shape + orientation) can change.

→ Identify those SLs that have signs with a change of selected fingers (mostly based on spelling) and those SLs that do not have signs with a change of selected fingers.

[Maybe in the Atlas this can be reported together with the distinction of SLs that have signs made up of spelled words (such as ASL BUS) and SLs that don't have signs made up of spelled words.]

■ Handedness in articulation

Description:

The aspect *handedness in articulation* refers to the distinction between those SLs that are main-ly articulated with one hand (not important whether this is the left or the right hand) from those SLs that are mainly articulated with both hands.

Aspects that can be analyzed:

→ Categorize SLs according to being articulated mainly by one hand or mainly by both hands.

!!! We are aware of the fact that this feature draws upon a personal estimation of the content-provider and is (most likely) not scientifically attested for sign languages. The final decision how we deal with these features in the Atlas, has not been made yet.

■ Hand dominance

Description:

The feature *hand dominance* distinguishes between a dominant and a non-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. Whereas, 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. In a dominance reversal, a signer uses his non-dominant instead of his dominant hand for signing.

Aspects that can be analyzed:

→ This differentiates sign languages in having hand dominance or not.

→ Those SLs that have hand dominance are further categorized in allowing for dominance switch (such as LIBRAS) or not (such as DGS).

■ Symmetrical movement in signs

Description:

For *symmetrical movements* in signs, the types of alignment between the two hands in time are important. This feature distinguishes whether the movement is alternating or not, and whether the alternating movements are synchronous or whether the two hands move one at a time.

Aspects that can be analyzed:

→ SLs can be grouped into those having signs with symmetrical movement and those without having signs with symmetrical movement.

→ Those SLs having signs with symmetrical movement can further be differentiated in the type of symmetrical movement they have: synchronous alternating; alternating movement one-at-a-time; synchronous mirroring movement.

■ Non-manual markers

Description:

A *non-manual marker* is a lexical or information-bearing unit which is expressed by articulators other than the hands. Non-manuals are separated into mouth actions and other non-manuals.

Aspects that can be analyzed:

→ Group SLs in having high /medium / low use of non-manuals.

!!! We are aware of the fact that this analysis draws upon a personal estimation of the content-provider and is (most likely) not scientifically attested for sign languages. The final decision how we deal with these features in the Atlas, has not been made yet.

→ Inventory of non-manuals used in each SL.

→ Most frequent non-manuals used.

→ Rarest non-manuals used.

→ SLs can be categorized if they use non-manuals rather for lexical functions, for non-lexical functions, or for both functions.

■ Mouthing

Description:

The term *mouthing* refers to mouth patterns that are derived from spoken languages, i.e. the (silent) articulation of (a part of) of a word from the spoken language simultaneously with the sign (other terms that have been used are "spoken component" and "word pictures"). A mouthing is related to the sign it accompanies and can specify its meaning.

For example, mouthings can distinguish manual forms, coming from unrelated semantic fields, that without the mouthings would be homonyms. In other cases, mouthings specify the semantics of a broader concept expressed by the manual form.

Aspects that can be analyzed:

→ Group SLs in having high /medium / low use of mouthings.

!!! We are aware of the fact that this analysis draws upon a personal estimation of the content-provider and is (most likely) not scientifically attested for sign languages. The final decision how we deal with these features in the Atlas, has not been made yet.

→ Correlation of mouthings and word classes: used with verbs, nouns, both, or all signs.

B2. Prosody

▪ Syllable

Description:

Traditionally, the *syllable* is defined as the prosodic level above the phonemic level. Within this level, phonemes are organized according to prosodic features such as the sonority hierarchy, for example. The sign language syllable is usually considered a sequential unit composed by at least a handshape, a location, and a movement. The number of syllables of a sign is provided by the number of sequential path movements. Indeed, movements represent the nucleus of the sign language syllable, determine the syllable weight, and influence the higher levels of prosodic organization.

Aspects that can be analyzed:

→ Group SLs according to signs with number of syllables (i.e. sequential path movements):
- 0 path movement possible
- 1 path movement possible
- 2 repeated path movements possible
- 2 non-repeated path movements possible
- 3 path movements possible
- +3 path movements possible

→ Differentiate between SLs that can distinguish signs by heavy and light syllables.

■ Phonological phrase

Description:

The level where prosodic words or clitics group into a larger prosodic unit is the *phonological phrase*. It is the layer of prosody immediately beneath the intonational phrase. Manual and non-manual markers can be used to identify the domain of a phonological phrase, for example by non-dominant hand spreading or special facial expressions.

Aspects that can be analyzed:

→ Inventory of non-manual components that are used to mark phonological boundaries in each SL.

■ Intonational phrase

Description:

At the level of the *intonational phrase*, phonological phrases are organized into larger prosodic units. The intonational phrase is the largest phonological unit into which an utterance can be divided and it is normally associated with several syntactic constructions, such as topicalizations, parentheticals, or non-restrictive relative clauses.

Aspects that can be analyzed:

→ Inventory of common intonational phrase boundary markers used in each SL.

B3. Phonological processes

■ Assimilation

Description:

We analyze *assimilation* here as a process only affecting the phoneme. Assimilation is a phonological process allowing one or more features of a phoneme to take the same value of another phoneme within a certain domain. The result is that the form undergoing the phonological change becomes more like a nearby form. Assimilation can be partial (only some features are copied) or total (all features are copied). Assimilation may target any of the phonological parameters of a sign.

Aspects that can be analyzed:

→ Collect examples of assimilation phenomena across SLs.

→ Categorize SLs according to the type of assimilation processes, such as progressive / regressive / bi-directional / no assimilation.

■ Weak hand drop

Description:

Weak Hand Drop refers to a process of phonological deletion. Two-handed signs may show articulatory reduction and be produced with the dominant hand only. Normally, this process is phonologically (and possibly lexically) constrained by the type of two-handed sign.

Aspects that can be analyzed:

→ Categorize SLs according to the type of two-handed signs that allow for weak hand drop, such as:
- two-handed symmetrical signs with a symmetrical mirroring movement
- two-handed symmetrical signs with an alternating movement
- two-handed asymmetrical signs, in which the non-dominant hand is the place of articulation

C: Lexicon

C1. The native lexicon

■ Pointing

Description:

Pointing is very common in sign language discourse and is undoubtedly the type of manual activity that looks most like the sort of gesture that non-signers commonly use to indicate deictically or demonstratively. However, pointing in sign languages fulfills a wide range of functions, and has been associated with various linguistic elements, including pronouns, determiners, demonstratives, locative adverbials, and agreement markers.

Aspects that can be analyzed:

→ Categorize SLs according to the different forms of pointing such as:
- manual pointing by 1-handshape
- manual pointing by B-handshape
- non-manual pointing by eye-gaze
- non-manual pointing by head tilt

■ **Buoys**

Description:

A *buoy* is a sign articulated by the non-dominant hand and kept in a stationary configuration, while the dominant hand continues to sign. Using a buoy in certain discourse contexts is a specific strategy to keep track of the referents.

Aspects that can be analyzed:

→ Categorize SLs according to whether or not they use buoys.

→ Categorize SLs according to the type of buoys they use, such as:
- List buoys
- Classifier buoys
- Others

■ **Lexicalization processes**

Description:

Lexicalization is the process by which a new lexical form is created such that its formal and semantic properties cannot be fully derived from the constituent elements. The new lexical item emerges to encode a specific meaning, normally because there was previously no single item to express that concept. The new word/sign may be created through various processes, such as compounding, conversion, and derivational affixation.

Aspects that can be analyzed:

→ Categorize SLs according to their inventory of type of lexicalization processes.

C2. The non-native lexicon

■ **Borrowings from other sign languages**

Description:

The contact between a sign language and another sign languages results in borrowing forms. The most typical lexemes borrowed from other sign languages are proper nouns, in particular, toponyms (i.e., names of geographical locations, countries, towns, villages, rivers, mountains, etc.) and name signs of (famous) people. Fingerspelling may also be borrowed from other sign languages.

Aspects that can be analyzed:

→ Identify for each SL the contact sign languages.

■ Borrowings from (neighboring) spoken language

Description:

The majority of sign languages are in contact with surrounding spoken languages including the dominant spoken language of the region that they are used in. Thus, the lexicon of sign languages is likely to contain forms that are borrowed from a spoken language. These are usually compounds or lexicalizations of fingerspelling.

Aspects that can be analyzed:

→ Identify for each SL the contact spoken languages.

■ Lexicalization of fingerspelling

Description:

Fingerspelling refers to the usage of the orthography of the spoken language to express a concept, and is a common form of borrowing from a spoken language.

Aspects that can be analyzed:

→ Categorize SLs according to whether or not they have lexical signs based on lexicalized fingerspelling.

→ Categorize SLs according to the type of lexicalized fingerspelling they use, such as:
- One-by-one fingerspelling
- Initialization
- Single manual letter signs
- Multiple letter signs
- Fingerspelling + sign

4. Atlas entries – Morphology

D: Morphology

D1. Compounding

■ Native compounds

Description:

Native compounds are those which are formed independently of the compounds existing in the surrounding spoken language. Within the group of native compounds, we distinguish sequential and simultaneous compounds; there are semantic and syntactic differences within each group.

■ Sequential compounds

Description:

Sequential compounds are characterized by the sequential juxtaposition of two (or more) free morphemes, that is, one component is signed after the other one. In some sequential compounds, the full form of each sign is retained, while in others, characteristic phonological reduction or assimilation processes apply in one or both of the stems that form the compound. A common sequential compounding process in sign languages is the combination of a (nominal) lexical item with a Size-and-Shape-Specifier.

■ Simultaneous and semi-simultaneous compounds

Description:

In *simultaneous compounds*, the two components of the compound are expressed simultaneously on the two manual articulators, that is, all compounds of this type are two-handed, with one hand articulating (part of) one sign while the other hand simultaneously articulates (part of) another sign. "*Semi-simultaneous*" refers to a continuum. In some cases, the two components – albeit reduced – are still clearly sequentially organized while in others, the forms become unrecognizable.

■ **Loan compounds**

Description:

Sign languages are always in contact with the surrounding spoken languages and this is reflected in the borrowing of compound structures. *Loan compounds* mirror the make-up of compounds found in the surrounding spoken language; they come in two types: faithful loans (also referred to as "1-to-1 loans") and modified loans.

■ **Compounds with fingerspelled components**

Description:

In these compounds, one component is fingerspelled, i.e. borrowed from the manual alphabet. The fingerspelled component may contain one or more fingerspelled letters.

D2. Derivation

■ **Agentive marker**

Description:

To date, only very few unambiguous examples of sequential derivational processes have been identified in sign languages, one of them is the agentive marker. An *agentive marker* derives an agentive noun from a verb or another (non-agentive) noun.

■ **Noun-verb pairs**

Description:

Derivation may also be realized simultaneously (i.e. by stem-modification). For the most part, the simultaneous derivational processes that have been identified to date involve characteristic movement changes, sometimes in combination with reduplication. A process that has been described for various sign languages is the derivation of action verbs from object nouns.

▪ Non-manual markers of derivation

Description:

An important basic distinction is that between manually realized and non-manually realized derivational processes. *Non-manual markers* that signal derivational processes generally involve the lower face, that is, the cheeks or the mouth, and are always realized simultaneously.

▪ Diminutive and augmentative

Description:

Diminutive and *augmentative markers* simultaneously combine with nouns to yield the meaning 'small x' (diminutive) or 'big x' (augmentative); that is, they are not category-changing. Both markers involve (at least) specific configurations of the cheeks: sucked in cheeks (and pursed lips) for the diminutive, blown cheeks for the augmentative.

▪ Intensive

Description:

It has been observed for some sign languages that adjectives may be modified for the *intensive* ('very x') by means of different non-manual markers.

D3. Verbal inflection

▪ Agreement

Description:

Agreement is a morphological phenomenon of dependency according to which part of the shape of a word/sign depends on properties of other words/signs to which it relates. Under verb agreement two types of inflections that are normally treated separately need to be taken into account: person agreement (with animate participants) and locative or spatial agreement (with arguments of location and movement predicates encoding goal, source, path or location). What makes agreement in sign languages typologically peculiar is the fact that only a subset of verbs can agree. Additionally to the term "agreement verb", other terms have been suggested in the literature, like "directional verb" or "indicating verb".

■ **Number markers**

Description:

Across spoken languages, the most common *number* distinction found on verbs is the distinction between singular and plural. However, languages may allow for more fine-grained distinctions, and this also seems to hold for many sign languages. A four-way distinction that is often mentioned in the literature is the one between the singular, dual, multiple, and exhaustive form.

■ **Reciprocal markers**

Description:

It is possible that *reciprocity* can also be marked on verbs, similar to what has been found for many spoken languages (e.g. Turkish). At least in some sign languages, various verbal strategies exist, and the choice of strategy has been shown to depend (i) on the verb class and (ii) on phonological factors.

■ **Tense**

Description:

Tense is the feature that indicates time and allows users to talk about people, things, or events that are not immediately visible or presently occurring. In terms of grammar, tense is a coding convention that indicates the temporal relation between speech time and reference time. It is divided into three broad categories, that is, present tense, past tense, and future tense.

D4. Nominal inflection

■ **Number**

Description:

Just like verbs, nouns may undergo systematic form changes depending on certain morphosyntactic features, such as number. This includes all strategies of nominal plural marking that apply to noun signs. It may be the case that the sign language to be described does not mark number at all on nouns – or marks it only on very few nouns.

D5. Classifiers

■ Entity classifiers

Description:

Classifiers are morphological categories that denote entities by depicting some salient iconic aspect of these entities by manual articulation, in particular, handshape. *Entity classifiers* may refer to inanimate or animate objects. They occur in verbs that express a motion of a referent, its localization in space, or its existence in space, and are combined with the phonological motion feature of the verb.

■ Handle classifiers

Description:

Handle classifiers occur with verbs that involve the holding or the manipulated motion of a referent. In contrast to entity and bodypart classifiers, they represent the entity they refer to indirectly, as they represent only the part of the object that is handled, for example, the stem of a flower, the handle of a basket, or the handle of a knife. In other words, they encode an iconic aspect associated with an action involving the theme of a verb, but they do not reflect the characteristics of the theme per se. Sometimes the theme is simply an object that is being held or transferred (e.g. given to someone).

5. Atlas entries – Syntax

E: Syntax

E1. Sentence types

■ Interrogatives: wh-signs

Description:

A sign language may contain a paradigm of *wh-signs* with meanings such as the following: who, what, which, where, why, when, how and how many/much. It has been observed that sign languages differ in terms of the variety of meanings they express with different manual signs. While some languages have only one wh-sign, others have a more extensive paradigm. It has also been observed that languages may have a general wh-sign with a basic meaning such as 'what'.

Aspects that can be analyzed:

→ Inventory of wh-signs

→ Position of wh-signs in the interrogative clause

→ Doubling of wh-signs

■ Imperatives:

Description:

An *imperative* is a grammatical form that is specialized to elicit a behavior from the addressee. However, the imperative is not used only for commands, but also for other functions such as invitations, advice, permission, or instructions.

■ Negatives

Description:

Every natural language possesses some way to express *clausal negation*. Although most languages share common aspects regarding the use of particular negative markers, the variety that languages exhibit in the use of these negative markers is quite extensive.

This variety is due to the number of negative markers as well as the syntactic status and the position of these markers in clauses. Different negative markers have different effects, syntactic, semantic and pragmatic. In addition, negation varies in the way it interacts with the various sentence types such as declaratives, interrogatives, imperatives, and exclamatives.

Aspects that can be analyzed:

→ Inventory of manual negation markers

→ Inventory of non-manual negation markers

→ Spreading domain of non-manual negation markers

E2. Clause structure

▪ Word order

Description:

Although the notion of *word order* in principle applies to all constituents in a clause, in practice the investigation of word order in a given language usually starts from the identification of the order of the constituents bearing the grammatical function of subject and object with respect to the verb.

▪ Null arguments

Description:

Some languages allow the arguments of a verb in a tensed clause not to be expressed as an overt pronoun or a lexical noun phrase. This is the situation in which the term '*null argument*' is commonly used. Similar to spoken languages, many sign languages also allow one or more of the arguments of the verb in a tensed clause to be phonologically unexpressed.

E3. Coordination and subordination

■ Coordination of clauses

Description:

By *coordination* we mean the combination of at least two constituents, often belonging to the same syntactic category such as noun phrases, verb phrases, or clauses, either through conjunction or juxtaposition. Conjunction refers to combining at least two constituents through the use of conjunctions such as "and", "but", and "or". Juxtaposition, on the other hand, refers to the coordination of constituents without such conjunctions.

Aspects that can be analyzed:

→ Inventory of manual markers of coordination

→ Inventory of non-manual markers of coordination

■ Subordination

Description:

By *subordination* we mean a syntactic mechanism by which clauses are combined. As opposed to coordination, where clauses share an equal status in the sentence, a core property of subordination is the asymmetric status of the two (or more) clauses being in a hierarchical relation. The main clause, also called the independent clause, is syntactically and semantically autonomous, while the subordinate clause, also called dependent, is syntactically and semantically dependent on the main clause.

■ Relative clauses

Description:

A *relative clause* is a clause that modifies a noun, and thus, it has an adjectival function. The noun that is modified is called "the head" (or "head noun"). Depending on the language, any constituent of the relative clause can be relativized, i.e. can be the head.

Aspects that can be analyzed:

→ Inventory of manual markers of relative clauses

→ Inventory of non-manual markers of relative clauses

→ The spreading domain of non-manual markers of relative clauses

E4. The noun phrase

▪ Numerals

Description:

Generally speaking, when the term '*numeral'* is used in the nominal domain, it indicates an item specifying the number of the entities referred to. At closer inspection, numerals can be classified according to 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?').

Aspects that can be analyzed:

→ The position of the numeral, such as preceding the noun, following the noun, or being re-peated so that they sandwich the noun.

6. Selected set of questions

Note that the following set of questions is an excerpt of the sub-Questionnaires 1-3: "Phonology + Lexicon", "Morphology", and "Syntax". The here provided questions exemplify the type of questions we will ask in order to collect data on the grammatical features described above. They do not represent the complete set of questions developed up to the current working stage. Here, arrows (→) indicate a dependency relation to the previous question. Questions with an arrow only appear if the previous question was resolved with a specific answer. Terms marked with an asterisk (*) will be explained in the glossary.

Please note that at this time, a pilot questionnaire is designed. The results of the pilot question-naires' evaluation might have an effect on the final set of questions in the sub-Questionnaires.

B: Phonology

B1. Sublexical structure

B1.3. Movement

B1.3.1. Path movement

B1.3.1_Question_1

Below, you see a set of different *path movements that commonly appear in several sign languages and that are distinctive. This means, the meaning of the sign changes if a path movement is replaced by another path movement. Which path movements are used in your sign language? Please select all types of path movements that are considered part of your sign language.

B1.3.1_Answer_1

• Set of path movement pictures (straight, circular etc.); boxes that should be clicked.

• Pict. box(es): If there are any path movements that you missed in the provided set, please upload a picture of each missing path movement.

- -

B1.3.2. Secondary movement

B1.3.2_Question_1

*Secondary movements refer to changes in handshape and/or orientation during the articulation of a single sign. Within complex movement changes, which of the following changes within a single sign are possible in your sign language?

(Multiple answers are possible.)

B1.3.2_Answer_1

• A single handshape change can occur as secondary movement within a single sign.

• Two or more handshape changes can occur as secondary movement within a single sign.

• A single orientation change can occur as secondary movement within a single sign.

• Two or more orientation changes can occur as secondary movement within a single sign.

• Both a handshape change and a orientation change together can occur as secondary movement within a single sign.

• There are no secondary movements in my sign language.

- -

B1.4. Two-handed signs

B1.4_Question_1

Sign languages can be differentiated whether they equally use both hands as manual articulators, or whether they predominantly use one hand as manual articulator. Would you categorize your sign language as mainly articulated by one hand or as mainly articulated by both hands?

(Only one answer is possible.)

B1.4_Answer_1

• Mainly articulated with one hand

• Equally articulated with one hand and with both hands

• Mainly articulated with both hands

We are aware of the fact that this classification draws upon a personal estimation and is (most likely) not scientifically attested for sign languages. Please give feedback on the basis of your judgment. (Only one answer is possible.)

• Judgment based on a documented analysis

• Judgment based on personal estimation

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→ B1.4_Question_1.1

[appears only if B1.4_Q1 was answered with "mainly articulated with both hands"]

Many sign languages that are mainly articulated with both hands differentiate between a *dominant hand and a *non-dominant hand in articulation. This concerns the articulation of lexical signs and does not include weak hand-drop. Does your sign language have hand-dominance? And does your sign language allow for dominant hand-switch between left and right hand?

B1.4_Answer_1.1

• YES, my sign language has hand dominance; and the dominant hand is determined

• YES, my sign language has hand dominance; but the dominant hand can switch easily

• NO, there is no specific hand dominance in my sign language

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B2. Prosody

B2.1. The lexical level

B2.1.1. Syllable

B2.1.1_Question_1

The number of *syllables of a sign is reflected in the number of sequential movements. What is the maximal number of sequential movements that is attested for the citation form for a single sign (not a compound) in your sign language?

(Please answer by typing a number.)

B2.1.1_Answer_1

• Textbox (for typing the number)

• Vid. box. If possible, please provide a video of a sign with the maximal number of syllables.

- -

B2.1.1_Question_1.1

Concerning sequential path movements, some sign languages have signs with two sequential movements, in which repetition is not involved, such as the sign CHINA in LIS. Does your sign language have signs with two sequential movements, in which repetition is not involved?

• Example picture of CHINA in LIS

B2.1.1_Answer_1.1

• YES / NO

• Textbox: If you clicked "yes", please provide the glosses of an example.

• Vid. box: If possible, please upload a video of your example sign.

- -

D: Morphology

D1. Compounding

D1.1. Native compounds

D1.1_Question_1

Native *compounds are those which are formed independently of the compounds existing in the surrounding spoken language. Does your sign language have native compounds?

D1.1_Answer_1

• YES / NO

• Textbox: If you clicked "yes", please provide the glosses of an example.

• Pic. box: If possible, please upload a picture of your example sign.

- -

D1.1_Question_1.1

What kind of sign is the sign for 'parents' in your sign language?

(Only one answer is possible.)

D1.1_Answer_1.1

• The sign is mono-morphemic and refers specifically to 'parents'

• The sign is mono-morphemic, but has a more general meaning (e.g. ELDER)

• The sign is a coordinate compound MOTHER^FATHER

• The sign is a coordinate compound FATHER^MOTHER

• The sign is a *subordinate compound

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D1.1_Question_2

What types of native compounds can be found in your sign language?

(Multiple answers are possible.)

D1.1_Answer_2

• Sequential compounds, in which the meaning is predictable from the parts

• Sequential compounds, in which the meaning is not predictable from the parts

• Compounds involving *SASS

• Simultaneous compounds, in which the two components of the compound are expressed simultaneously on the two manual articulators

- -

D1.1.1. Sequential compounds

D1.1.1_Question_1

In sequential compounds, one component is signed after the other one. Does your sign language have sequential compounds with more than two components?

D1.1.1_Answer_1

• YES / NO

- -

→ D1.1.1_Question_1.1
[appears only if D1.1.1_Q1 was answered with "yes"]

What is the maximal number of components in a sequential compound sign that is attested in your sign language?

(Please answer by typing a number.)

D1.1.1_Answer_1.1

• Textbox (for typing the number)

• Vid. box. If possible, please provide a video of a maximal sequential compound sign.

- -

D2. Derivation

D2.1.1. Sequential derivation

D2.1.1.1. Agentive

D2.1.1.1_Question_1

An agentive marker derives an agentive noun from a verb or another (non-agentive) noun. For example, ASL employs an agentive suffix glossed as AGENTIVE (see the example picture below). AGENTIVE may combine with the verb OPERATE in ASL, to become the derivative OPERATE^AGENTIVE ('surgeon').

• Example picture of AGENTIVE in ASL

Does your sign language have agentive nouns?

D2.1.1.1_Answer_1

• YES / NO

- -

→ D2.1.1.1_Question_1.1

[appears only if D2.1.1.1_Q1 was answered with "yes"]

What type of agentive marker is used in your sign language? (Only one answer is possible.)

D2.1.1.1_Answer_1.1

• The agentive marker is an agentive suffix, such as AGENTIVE in ASL

• The agentive marker is the sign PERSON

• Both types of agentive markers are used in my sign language.

• Other type of agentive marker.

- -

D2.1.1.2. Negative

D2.1.1.2_Question_1

In cases of derivational negation, a lexical stem is combined with a negative suffix. For example, the ISL suffix, which is glossed as NOT-EXIST, can attach to adjectives and nouns and invariably gives an adjective as a result, such as INTERESTING^NOT-EXIST ('of no interest').

• Example pic.: INTERESTING^NOT-EXIST (ISL)

Does your sign language employ a process of negative derivation?

D2.1.1.2_Answer_1

• YES / NO

• Textbox: If you clicked "yes", please provide the glosses of an example.

• Pic. box: If possible, please upload a picture of your example sign.

- -

D3. Verbal inflection

D3.1. Agreement

D3.1_Question_1

*Agreement is most commonly marked by a manual modification of the sign, typically a modification of the direction of movement and/or the orientation of the hand. Does your sign language in general show agreement phenomena (i.e., verb agreement, pronoun agreement, pointing)?

D3.1_Answer_1

• YES / NO

- -

→ D3.1_Question_1.1
[appears only if D3.1_Q1 was answered with "yes"]

Does your sign language systematically distinguish between verbs that show manual agreement (i.e. agreement verbs) and verbs that do not show manual agreement (i.e. plain verbs)?

D3.1_Answer_1.1

• Yes, there is a difference between agreement verbs and plain verbs.

• No, there are only agreement verbs in my sign language.

• No, there are only plain verbs in my sign language (but other forms of agreement phenomena such as pointing).

- -

→ D3.1._Question_1.2
[appears only if D3.1_Q1.1 was answered with "yes"]

Can you further categorize the agreement verbs according to the arguments they agree with?

D3.1_Answer_1.2

• No, verbs that agree can not further be specified.

• Yes, verbs that agree can further be subcategorized into person agreement verbs.

• Yes, verbs that agree can further be subcategorized into location agreement verbs.

• Yes, verbs that agree can further be subcategorized according to another dimension.

• Textbox: If you clicked the last category, please specify here.

- -

→ D3.1. Question_1.2.1
[appears only if D3.1_Q1.2 was clicked with "person agreement verbs"]

What syntactic arguments do person agreement verbs agree with?

(Multiple answers are possible.)

D3.1_Answer_1.2.1

• Subject-agreement

• Object-agreement

• Subject-and-object-agreement

• Backwards-agreement

- -

→ D3.1_Question_1.3

[appears only if D3.1_Q1 was answered with "yes"]

How is agreement expressed in your sign language? (Multiple answers are possible.)

D3.1_Answer_1.3

• Verbs agree only by movement

• Verbs agree only by orientation

• Verbs agree by movement and orientation

• Agreement can also be expressed non-manually by eye-gaze

• Agreement can also be expressed by other non-manual markers

• Textbox: If you clicked the last category, please specify here.

- -

E: Syntax

E1. Sentence types

E1.2. Interrogatives

E1.2.3.2. List of wh-signs

E.1.2.3.2_Question_1

While some languages have only one wh-sign, others have a more extensive paradigm. It has also been observed that languages may have a general wh-sign with a basic meaning such as 'what'. How many wh-signs do your sign language have? (Please answer by typing a number.)

E.1.2.3.2_Answer_1

• Textbox (for typing the number)

- -

E.1.2.3.2_Question_1.1

You see a list of English wh-words. For which of these do your sign language have a sign?

(Multiple answers are possible.)

 E.1.2.3.2_Answer_1.1

• Where

• Who

• What

• Why

• When

• Which

• How

• Whose

• Textbox. If there are any wh-sign that you missed in the provided set, please note the Gloss and English word

• Empty box. If possible, please provide a video of each wh-sign .

- -

E1.2.3.5. Position of wh-signs

E.1.2.3.5_Question_1

In which position do question words stand in your sign language?

(Multiple answers are possible.)

E.1.2.3.5_Answer_1

• In situ

• Sentence-initial

• Sentence-final

- -

E1.5. Negatives

E1.5_Question_1

How does sentential *negation work in your sign language?

(Only one answer can be clicked.)

E1.5_Answer_1

• Only manual

• Only non-manual

• Both

- -

E1.5.1. Manual marking of negation

E1.5.1_Question_1

Is the manual *negation sign post or pre-verbal in your sign language?

(Only one answer can be clicked.)

E1.5.1_Answer_1

• Post verbal

• Pre verbal

• Both

- -

E2. Clause structure

E2.3. Word order

E2.3.1_Question_1

Is there a dominant word order in your sign language?

E2.3.1_Answer_1

• YES / NO

- -

→ E2.3.1_Question_1.1
[appears only if E2.3.1_Q1 was answered with "yes"]

What is the dominant word order in your sign language?

(Only one answer is possible.)

E2.3.1_Answer_1.1

• SVO

• SOV

• VSO

• VOS

• OSV

• OVS

Textbox. If there are any word order that you missed in the provided set, please note.

- -