

On the Lexical level in Sign Languages

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Abstract

In this paper, I address the issues of lexical level in sign languages, namely, in Georgian Sign Language (GESL).

Form and meaning associations in sign languages are conventional and often arbitrary. Visual-gestural modality allows for considerable iconicity, like visual imagery in signs with spatial-temporal dimensions, yet the dynamic, multimodal forms of signs, including non-manual features, are challenging to represent in a dictionary. The size of conventional sign lexicons is recognized as being relatively small, while the semantic potential of a smaller set of signs is expanded by the modification of signs and the productive use of visually motivated constructions.

Like many spoken languages, in sign languages, lexical derivation is one way to produce new signs. GESL has a few derivative affixes, and some are universal, such as classifiers. The presented paper introduces the derivational affixation in GESL in detail.

Another way to produce new signs is composition, a method widely used in many sign languages. New signs can also come from other sign languages as borrowings. Due the cultural-political situation in Georgia, local deaf and hard of hearing people were connected with the Russian deaf community and with other Soviet deaf communities, and this historical contact left its mark. As such, the lexical level of GESL today is very much influenced by Russian Sign Language (RSL).

Keywords: Lexical level of GESL, lexicon, Georgian Sign language, GESL, sign languages.

Georgian Sign Language,(GESL) is an as yet understudied language. It is the language of deaf and hard of hearing people (DHH) in Georgia, who are a linguistic minority lacking national diversity within their community. GESL is a united language for them. GESL is an original, natural language, with its own grammar system.

Sign languages have the same linguistic structures as spoken languages, and, naturally, they have all the hierarchical levels. These two different modality languages (spoken and sign) have many similar linguistic categories. The main parameters for phonological levels are:

- Handshape
- Palm orientation
- Movement
- Location

At the sign language lexical level, I should mention sign structure in general. Signs can be one-handed or two (symmetric or asymmetric – with dominant and passive/non-dominant hands), while signs can be static or dynamic, with proper navigation. Signs may include manual and non-manual elements – head and body movements, and, in some sign languages, these non-manual elements may have a grammatical meaning along with a lexical content. The lexicography of sign languages is a growing field of linguistics (among others Fenlon et al. 2015, Boyes Braem & Sutton-Spence 2001, Johnston 2003, Kristoffersen et al. 2013, Carmel 1992, and Hanke 2002).

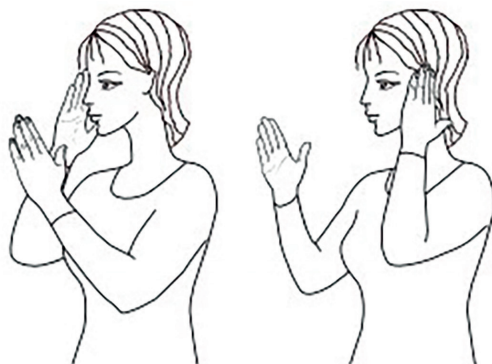
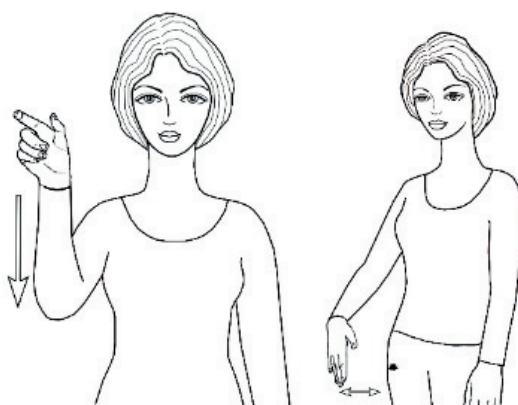
It is noteworthy that form and meaning associations in sign languages are conventional and often arbitrary. The visual-gestural modality allows for considerable iconicity, like visual imagery in signs which have a spatial-temporal dimension, and their dynamic, multimodal forms, including non-manual features, are challenging to represent in a dictionary. Simultaneous processes, aside from segmental morphology and embodied articulation, also lead to innovative modification and flexibility in the use of signs, sometimes blurring the distinction between lexical, grammatical, and prosodic meanings (Emmorey 2003).

The size of conventional sign lexicons is relatively small. In 2015, I published The GESL Dictionary with 4000 lexical units, and also created an electronic version – www.gesl/iliauni.edu.ge. This project was supported by the Shota Rustaveli National Scientific Foundation. Next came The GESL Election Dictionary published in 2015, with the financial support of the US Embassy in Tbilisi, www.electionGESL/iliauni.edu.ge.

Like many other sign languages, the signs in GESL can be iconic (Figure 1), metaphoric (Figure 2) or deictic (Figure 3). See the examples below.



Fig. 1. Roofing

**Fig.2.** Joyful**Fig. 3.** Thigh /leg

Like many spoken languages, in sign languages, the lexical derivation is just one way to produce new signs, although this is very limited in opportunity, due to the simultaneous nature of these languages. GESL has a few derivative affixes, and some (such as classifiers) are universal among sign languages. Signs can also be produced by adding dactyl(s) at the beginning. This method is mostly used for clarification.

In sign languages, affixes are also signs, and it can be challenging to identify some signs as affixal elements. Here are the main criteria:

- Morphosemantic content
- Delexicalization
- Grammaticalization
- Solid, unchanging location
- Erosion

When a sign meets these criteria, it can represent an affix.

Derivational examples:



Fig. 4. *Agrarian*

The sign in Figure 4 consists of the following signs: ‘village’ and ‘variety’. This latter becomes a derivational affix in GESL. The last sign is an ‘*affix of destination*’ (Makharoblidze & Archvadze 2022).



Fig. 5. *Educational / for learning*

Figure 5 shows the marker of destination, as the sign consists of the lexical root ‘study’/ ‘learn’ and ‘*affix of destination*’.

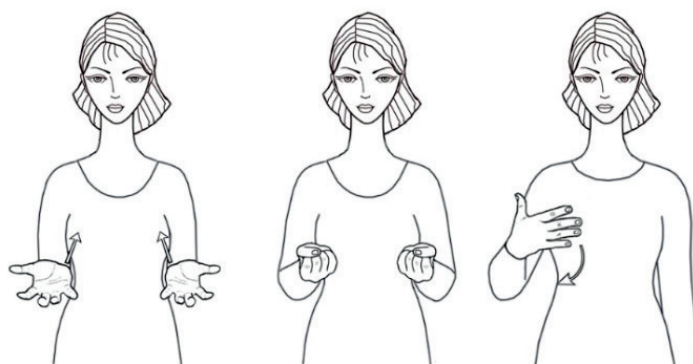


Fig. 6. *Received*

In Figure 6, we see the lexical root 'receive' and the erosive one-handed form from the two-handed sign 'already'. This latter is an affix of perfect.

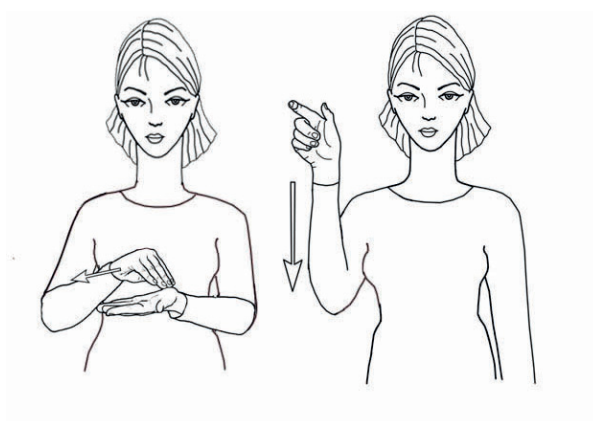


Fig. 7. Author



Fig.8. Citizen

In figures 7 and 8, the last element is a classifier. The meaning of this sign is 'human' in many sign languages. In these forms (*author*, *citizen*), it stands for the derivational marker of human class category nouns.

In GESL, there are nominal negators that can be considered affixes of negation. See the examples below.

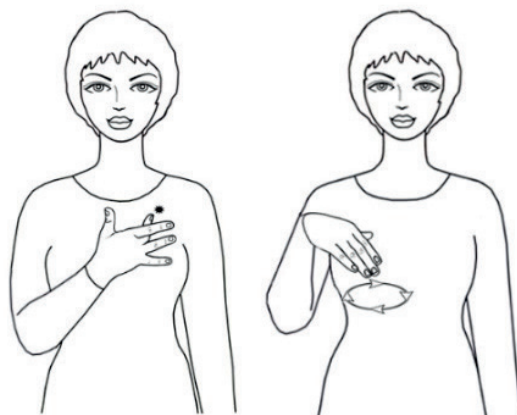


Fig. 9. *Heartless*

In Figure 9, the first sign shows the lexical root '*heart*'. In most sign languages, the somatic lexicon is deictic. The second sign '*empty*' is a nominal affix of negation. The same type of negation is shown in Figure 10 below, with the sign '*without*' preceding the main lexical sign '*care*'. Although the canonical place of these negators comes after the main lexical sign, as this is a language without standardization, such variations are expected.

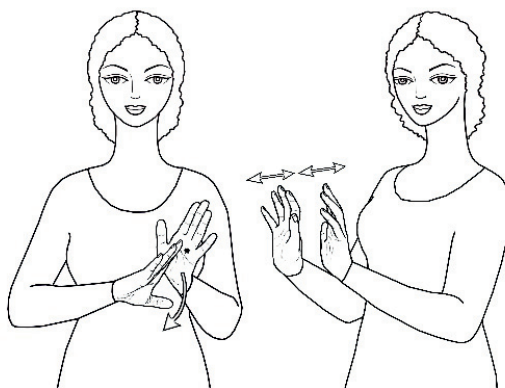


Fig. 10. *Careless*

Negative particles are also used as affixes in GESL:



Fig. 11. *Busy*

The sign in Figure 11 consists of the lexical sign for ‘time’ and the negative particle ‘no’.

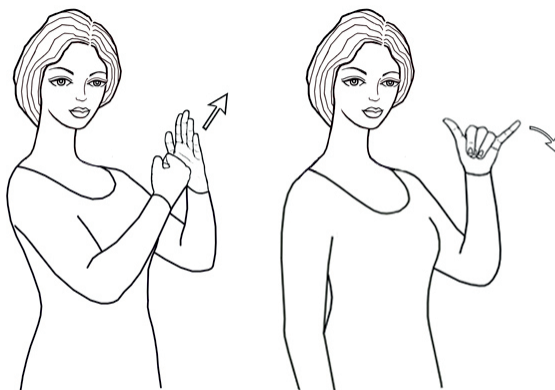


Fig. 12. *Unattainable / unreachable*

Figure 12 shows the lexical root ‘reach’ / ‘attain’ and the modal negative particle ‘cannot’. This latter is the negative modal particle ‘*ver(a)*’ from spoken Georgian.

Another way to produce new signs is through composition, which is widely used in many sign languages. Very often, even very plane lexical concepts have composite forms, as they are produced with a number of signs combined. In many cases, this type of production is used for explanations, as it tries to describe the lexical semantic meaning of a sign. I should note that, in this case, in GESL, the significant influence of spoken Georgian can be seen.

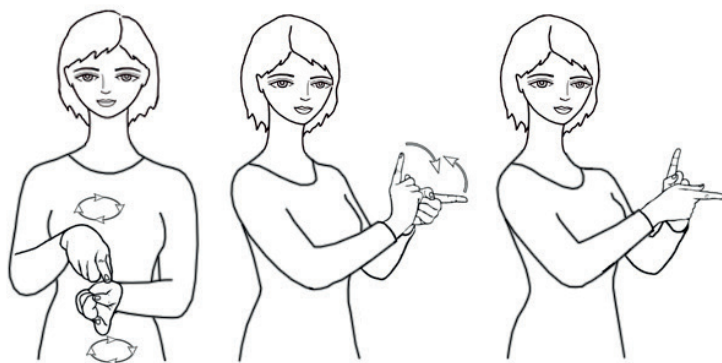


Fig. 13. *Get evil/angry*

Figure 13 shows a composite sign with two parts. The first sign is 'evil' / 'angry' and the second part is 'become'.

Figure 14 is also a composite sign – *nestling*. It consists of the signs 'bird' and 'little'.

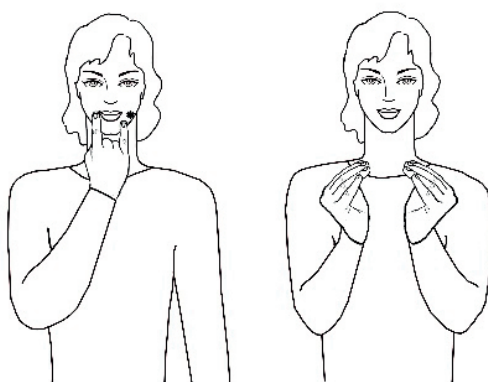


Fig. 14. *Nestling*

New signs can also come from other sign languages as borrowings. Due to the cultural-political situation in Georgia, local DHH used to be connected with the Russian Deaf community, as well as with a number of other Soviet Deaf communities, and this historical contact left its mark. In fact, the lexical level of GESL is very much influenced by Russian Sign Language (RSL).

It is challenging to work at the GESL lexical level, as there are many issues waiting their turn to be investigated before standardization can be achieved, and, of course, the GESL dictionary needs to be enriched by a new version.

The scientific results of GESL investigation must be implemented in the programs of the local deaf schools in Georgia in order to improve the deaf education system in the country.

Conclusion

Sign languages have simultaneous grammars, and instead of sequential units, these languages use modified signs to deliver different grammatical and lexical meanings. Despite this fact, some sign languages also seek to develop affixal systems.

While studying the lexical level of GESL, I revealed the above-mentioned systemic examples of word derivation and composition. The above-discussed material confirms the existence of a mixed-type linguistic system (simultaneous and sequential) in GESL. This mixed system gives wider possibilities to young sign languages to systemically develop at different hierarchical levels of language.

The deaf education system in Georgia can benefit greatly from these

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