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SENTENTIAL NEGATION IN RUSSIAN SIGN LANGUAGE

SERIES: LINGUISTICS

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SENTENTIAL NEGATION IN RUSSIAN SIGN LANGUAGE[2]

In this paper, a description of sentential negation makers in Russian Sign Language (RSL) is provided. Two types of these markers exist. The first one is a negative sign – a manual negator. The second type is markers that are expressed by facial expressions, and head movements – non-manual negation. Moreover, this observation of sentential negation presents the frequency of manual negators, and the distribution of non-manual negation. The data also shows that in negative constructions the basic word order changes. In addition, I offer an analysis that deals with this phenomenon.

Keywords: sentential negation, manual negator, non-manual negation, word order change, Russian Sign Language.

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1. Introduction

This paper deals with sentential negation in RSL. The way to negate a proposition across sign languages is quite the same but differs in comparison with spoken languages. Due to visual-gestural modality sign languages have the opportunity to transmit the negative meaning not only by a sign, which is an equivalent to a word in spoken languages, but also by non-manual markers, including facial expressions, and head movements. Non-manual markers may accompany a manual negator (1)[3], or express negation by their own, without a negative sign (2). The distribution of non-manual negation varies from sign language to sign language. The phenomenon of this simultaneity has generated interest among linguists. There are numerous studies dedicated to the sign language negation in typological (Zeshan 2004a, 2006) as well as in formal (Pfau & Quer 2002, Geraci 2006, Gökgöz 2011) approaches.

(1)   Hong Kong Sign Language (Tang 2006)

                        neg
INDEX3 TOMORROW FLY NOT.

'It is not true that he is flying tomorrow.'

(2)   American Sign Language (Pfau 2014)

                   neg
JOHN BUY HOUSE

'John is not buying a house.'

Negation in RSL is expressed by a manual negator, and non-manual negation. Both of them are obligatory. This means that it is impossible to negate a sentence without manual negator (3b), or without non-manual markers (3c). The basic manual clause negator always follows the predicate (3a) and in most cases has the clause final position even with transitive verbs (4a), changing the basic word order, which is SVO. In other words, the SVO word order in negative constructions seems odd for native signers (4b). Non-manual negation consists of facial expressions and head movements. These markers spread over the negative sign, or even over several signs. In this paper, I try to syntactically analyze negative constructions in RSL and explain the word order change. I show that negation in RSL occupies the lowest position in syntactic tree, while it is generally believed that the negative projection is above the verb projection (Pfau & Quer 2002, Gökgöz 2011).

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[3] Sign language examples are given in small capital letters. The line above glosses indicates which sign(s) co-occurs with non-manual markers. 'neg' stands for non-manual markers of negation.

(3) a.   RSL (elicited)

             <u>   neg   </u>

       GIRL INDEX SMOKE NOT

       'That girl does not smoke.'

b.   RSL (elicited)

             <u>   neg   </u>

       *GIRL INDEX SMOKE

       Intended: 'That girl does not smoke.'

c.   RSL (elicited)

       *GIRL INDEX SMOKE NOT

       Intended: 'That girl does not smoke.'

(4) a.   RSL (elicited)

               <u>   neg   </u>

       BROTHER PRESENT GET NOT

       'My brother did not get a present.'

b.   RSL (elicited)

              <u>   neg   </u>

       ??BROTHER GET NOT PRESENT

       'My brother did not get a present.'

The structure of the paper is as follows: in Section 2, I describe the main aspects of Russian Sign Language, including the history of emergence, sociolinguistic situation, and the relevant grammar overview. Section 3 provides the methodology of data collection. In Section 4, I present a general overview of negation in RSL. In Section 5, I offer an analysis of the syntax of negation in RSL. The main findings are summarized in Section 6.

2. Introduction to RSL

Russian Sign Language is a natural language that is used by Deaf and hard-of-hearing people in Russia, and also in post-Soviet states (e.g. Belarus, Ukraine, Kazakhstan). According to 2010 population census, there are 121,000 people in Russia for who RSL is a native language. A native signer could be a Deaf, or hard-of-hearing person, or a child of Deaf adults (CODA).

2.1 History

The first school in Russia for Deaf children was established in 1806 in Pavlovsk. This date is considered to be the date of emergence of RSL. However, RSL received an official status only

in 2010. During the 19th and 20th centuries, RSL did not receive sufficient attention, because RSL was regarded as a primitive way of communication. The first researches on RSL were done a century after its appearance. Starting with the 1990s, Zajtzeva made a substantial contribution in this field.

Nowadays, RSL is still understudied. There are more and more students and researchers who are working on RSL. Different topics are well investigated and described so far, including word order (Kimmelman 2012), verbal morphology (Shamaro 2006), aspect (Filimonova 2015), imperatives (Borodulina 2012), irregular negation (Kimmelman 2007), information structure (Kimmelman 2014) and so on. In addition, there is a corpus of RSL (http://rsl.nstu.ru), built by researchers from Novosibirsk (Burkova 2015).

2.2 Sociolinguistics

The sociolinguistics situation in RSL represents an interesting issue. First of all, there are regional variations, which mainly extend on lexical domain (Burkova and Varinova 2012, Grenoble 1992). These variations are caused by the country size, and separateness of big cities. Second, RSL among signers variates in language level. There are two main reasons for this variation. The first reason is the age of hearing loss and the age of language acquisition. The second reason is the way of learning RSL: in family since birth, in school with oralism method, or at school with manualism method.

Moreover, almost all signers across different sign languages are bilinguals. In addition to sign language they know an equivalent spoken language. RSL signers are not an exception, so they also know Russian. Due to facts that RSL was not recognized and had low prestige, and some signers know Russian well, there is a system that is called Signed Russian. In other words, signs are used instead of words, but grammar structure, such as word order, is borrowed from spoken Russian. This system should not be confused with RSL.

2.3 Relevant grammar

In this subsection I briefly outline aspects of RSL grammar that are relevant for the present study. First, the basic word order in RSL is SVO, where S stands for the Agent-like argument, V for a predicate, O for other arguments (Kimmelman 2012). Second, Pasalskaya (2017) shows that resultative constructions consist of two predicates and syntactically behave as mono-clausal structures. An example is given in (5). In section 4, I will show that the basic word order changes in negative constructions, and resultative predicates are in complementary distribution with a manual negators.

(5)   RSL (elicited)

BOY CL:GLASS.DRINK EMPTY

'A boy has drunk the whole glass to the bottom.'

Last but not least, compounds in RSL have several properties (see Pasalskaya 2016 for detailed discussion). One of them is the loss of repetition rule. This means that a sign, which consists of the same repetition movements reduces to one movement. Another main property deals with mouthing. As a rule, two signs forming a compound are articulated together as one word. This word is borrowed from spoken language for the compound. Predicates with a manual negator demonstrate properties of compounds (see Section 4).

3. Data collection

Researches of negative constructions in different sign languages do not use a universal questionnaire or even methodology. The first typological study of negation across sign languages applied questionnaire for spoken languages, leading to some methodological problems (Zeshan 2004b). Some studies are based on dialogues between two Deaf signers, individual storytelling, or other conversations (Gökgöz 2011 for Turkish Sign Language, Yang & Fisher for Chinese Sign Language). Other ways to collect the data are (i) to present written sentences in spoken language for translation (Pfau 2008 for German Sign Language), or (ii) to sign the context as a background for specific sentence (Geraci 2005 for Italian Sign Languages). In addition, the study may be based on data from the Corpus (Oomen & Pfau 2017 for Sign Language of the Netherlands).

All these methods have their own advantages and disadvantages. Moreover, different goals require different methods. For example, any corpus is useful because of natural speech production, but in this case, there are many hesitations, self-corrections, reductions, reduplications and so on. The most important disadvantage of the corpus data is that it does not contain ungrammatical utterances. As for storytelling, it is natural speech, but it is hard to predict how many negative constructions will be in narration. One more method is to describe contrastive pictures. For example, the first picture presents a girl in her blue dress, the second – the girl in her red dress. The result of this method will be constituent negation, but this differs from sentential negation.

I believe that sentences in isolation still reflect the basic patterns of negation. In this study I therefore combined two methods: a sentence interpretation task, and a sentence creation task. For the sentence interpretation task, I created a small questionnaire with affirmative statements in Russian. Then, I asked my consultants to translate sentences into RSL, and convert them in utterances with negative meaning. This let me focus on specific examples and have a minimal pair

of two sentences: affirmative and negative. Two native signers (Deaf child of Deaf parents) from Moscow participated in this task. They were given written stimuli, which might have had an impact on the language use. However, consultants were instructed to read sentences and to sign these sentences as if in a conversation with a deaf interlocutor. They also were instructed to use only RSL.

The second way of data collection was the creation-sentence task. On the slide there were some words randomly located in order and in space. Signers were asked to create all possible grammatical sentences with these words and to sign them. On the next slide a new word appeared that signers needed to add in the sentence, making it longer. In contrast with the sentence interpretation task, in this assignment there was no influence of Russian grammar. Participants of this task were 5 signers (1 male) from Novosibirsk: all of them were Deaf children of Deaf parents. Four signers worked in pairs in purpose to reduce the possibility of using Russian grammatical structure. Again, all signers were instructed to use only RSL.

Sessions with signers were taped and later annotated with ELAN 4.9.1.

4. Negation in RSL: general picture

With respect to how sentential negation is expressed, there are two types of languages: manual dominant, and non-manual dominant (Zeshan 2006). Manual dominant sign languages are sign languages in which a manual negator is obligatory unlike non-manual negation. In languages with more than one non-manual configuration, the choice of non-manual marking depends on the choice of a manual negator. In addition, non-manual negation does not spread over several signs, the scope of non-manual negation is over the manual negator only. Here is an example form Hong Kong Sign Language (Tang 2006), where the manual negator NOT is accompanied by non-manual negation (6), but non-manual negation cannot negate a sentence alone (7).

(6)   Hong Kong Sign Language (Tang 2006)

$$\overline{\text{neg}}$$

INDEX3 TOMORROW FLY NOT.

'It is not true that he is flying tomorrow.'

(7)   Hong Kong Sign Language (Tang 2006)

$$\overline{\text{neg}}$$

*HOUSE FAR

'The house isn't far.'

In non-manual dominant languages, a manual negator is optional, but non-manual negation is obligatory. This means that a clause can be negated by non-manual negation only, or by both a manual negator and non-manual markers. Moreover, non-manual negation may easily spread from a manual negator to other signs. Consider the example from Sign Language of the Netherlands. In (8) the manual negator is absent and non-manual negation spreads over the whole sentence.

(8)   Sign Language of the Netherlands (Coerts 1992:216)

<u>   neg   </u>

INDEX1 OUTSIDE WORK

'I couldn't work outside.'

In RSL, sentential negation is expressed by both a manual negator and non-manual negation. Consider a typical example in (9). The first thing to note is that manual negator follows the predicate and has the clause-final position. This position of the manual negator indicates that the basic SVO word order changes to SOV. Non-manual negation accompanies the predicate and the manual negator. It is impossible to negate a sentence by non-manual negation only like in (10)[4]. From these facts we can infer, that RSL is an example of manual dominant languages. As was described above, in manual dominant languages non-manual negation spreads over the manual negator only or is closely tied to the manual negator. However, RSL allows non-manual negation to spread over whole sentences (11). These facts mean that it is difficult to categorize RSL.

(9)   RSL (elicited)

                          <u>   neg   </u>

BROTHER PRESENT GET NOT

'My brother did not get a present.'

(10)   RSL (elicited)

                    <u>neg</u>

*BROTHER PRESENT GET

'My brother did not get a present.'

(11)   RSL (elicited)

                                  <u>   neg   </u>

3-CALL-1 NOBODY 3-CALL-1 NOT

'Nobody called me.'

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[4] There are some cases when manual negator is absent, but there are other signs with negative meaning in these cases, like NOBODY.

In further subsections I will describe in detail manual negators (Section 4.1) and non-manual negation (Section 4.2).

4.1 Manual negator

The main manual negator in RSL is a sign glossed NOT, formed with a flat hand, palm facing outward, and repeated sideways movement (Fig. 1). Its variation, the same two-handed sign, is glossed NOT2. The manual negator NOT occurs in 50% of sentences with a manual negator, while NOT2 occurs only in 8,3%. In this sample I do not include sentences with irregular negation, and sentences where negative words (n-words) as NOBODY, or NEVER replace the manual negator.

Fig. 1. The manual negator NOT in RSL

There are some verbs that cannot express negation analytically, instead they incorporate negation. They are called irregular negation or irregular negatives (for more information see Kimmelman 2007). A positive form of irregular negation is completely different from a corresponding negative form. In (Fig. 2) an example of such verb UNDERSTAND in positive and negative forms is provided.
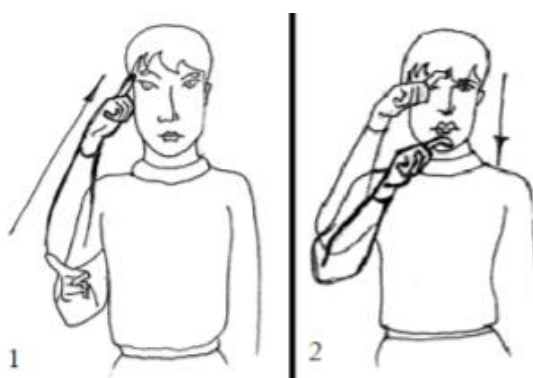

Fig. 2. Positive form of UNDERSTAND (1); negative form of UNDERSTAND (2) (Kimmelman 2007).

In addition to lexical irregular negation, there are irregular negatives that are used as clause negators (modals, existentials, etc.). Thus, another way to negate a sentence is to use irregular

negation instead of the main clause negator NOT. Consider an example given in (12). In my data this strategy is quite popular and constitutes 41,7%.

(12)   RSL (elicited)

<u>   neg</u>

MOTHER BOOK BUY NOT.NEED

'Mother did not buy a book.'

As was mentioned above, a manual negator is obligatory. However, in sentences with n-words, such as NOBODY and NEVER, a manual negator may be omitted (13). In these examples, both signs NOBODY and NEVER are accompanied by non-manual negation. There are 5 out of 23 examples in my data with n-words instead of manual negators, and 5 examples with both n-words and a manual negator (14). It is not yet proved whether RSL is a language with negative concord or not. I leave negative constructions with n-words for further research to identify the RSL status regarding negative concord.

(13)   RSL (elicited)

<u>   neg</u>

I 1-CALL-3 NOBODY

'I called nobody.'

(14)   RSL (elicited)

<u>   neg</u>

3-CALL-1 NOBODY 3-CALL-1 NOT

'Nobody called me.'

I propose that negation exists in complementary distribution with resultative secondary predicates. According to Pasalskaya (2017), resultative constructions are mono-clausal, so they can be considered as a complex predicate. Negation of resultative constructions leads to the replacement of a secondary predicate by a manual negator (15). This fact illustrates that negation with the predicate composes a complex predicate.

(15) a. RSL (elicited)

BOY CL:GLASS.DRINK EMPTY

'A boy has drunk the whole glass to the bottom.'

b.   <u>neg</u>

BOY CL:GLASS.DRINK NOT

'A boy has not drunk the glass.'

One more argument for analyzing NOT as a part of one unit with a predicate deals with mouthing. As a rule, two signs in compounds are articulated together as one word, the word that is borrowed from spoken language for this compound. Turning to negation, the mouthing over a predicate and a manual negator starts with pronouncing 'not' in Russian, since the grammar of the Russian language, where the negative particle precedes the verb, somewhat influences RSL. For example, mouthing of two signs BUY NOT changes their original order of articulated words. During the sign BUY the mouthing is /nje/ (this means 'not' in Russian), opposite, the sign NOT articulated by the word for 'buy' in Russian. In addition to this property, a predicate with a manual negator shows another property of compounds, namely the loss of repetition. For example, the predicate BUY consists of two identical movements. In case when BUY precedes the manual negator NOT, movements of the sign BUY reduce to one movement. Therefore, a predicate with a manual negator may be considered as a whole unit.

4.2 Non-manual negation

Despite a manual negator, negation is expressed by non-manual markers. These non-manual markers may be divided into two groups. The first one is facial expressions, such as a frown. The second group is head movements, e.g. a negative headshake. The scopes of facial expressions, and head movements may differ.

In my data there are 3 out of 23 examples without any facial expressions at all. Only one example presents uncommon facial expressions for negation, namely raised eyebrows. The main type of facial expressions varies from signer to signer; however, its characteristic components are the following: furrowed eyebrows, narrowed or closed eyes, wrinkled nose, pressed lips, and lowered down corners of the mouth like in Fig. 3. With regard to scope of facial expressions, the manual negator, and n-words are always accompanied by them. Facial expressions spread over the whole sentence in 34,8 % of cases. The predicate, including irregular verbs of negation, almost in all cases (83%) accompanied by facial expressions.

Fig. 3. Negative facial expression spreads over the sign NEVER.

Turning to head movements, there are three types that occur in my data. The most frequent is called the negative headshake, a side-to-side movement of the head. It occurs in 19 out of 23 sentences. Due to a repeated movement, it can spread from the manual negative sign to other signs. The second type is the negative head turn, a single sideward head movement. This type occurs 3 out of 23 times in my data. The rarest type is a head node, it occurs only 2 times in my data. Since this head movement typologically does not exist in negative constructions (Zeshan), I suppose that a head node holds a meaning other than negative. As concerns the headshake spreading, it accompanies a sign that contains negative meaning: NOT, NOBODY, NEVER.

5. Analysis

As I showed above, negative constructions in RSL have several properties. First, RSL has features of both non-manual and manual dominant languages. Non-manual negation may spread over whole sentences like in non-manual dominant sign languages but cannot negate a sentence alone without a manual negator like in manual dominant languages. Second, the basic word order, which is SVO, changes to SOV Neg in negative constructions, a clause-final manual negator follows a predicate. Third, a manual negator is in complementary distribution with resultative secondary predicates. Forth, a manual negator along with a predicate has properties of compound, a single entity.

Turning to my analysis, I adopt First Phase Syntax by Ramchand (2008). She proposed that event structure consists of three syntactic heads: 'init', 'proc', and 'res', where 'init' corresponds to v and is responsible for introducing an initiation subevent, 'proc' corresponds to V and refers to a process subevent and 'res' corresponds to R and refers to result state. It is worth to note that Ramchand use 'res' not only for resultative secondary predicates. She argues that several verbs in English, e.g. *throw, break, arrive* etc., also encode the result state of a process. That is why a *res*P may be outside resultative constructions. Without going into a semantic derivation, the sentence in (16) has the follow syntactic representation (Fig. 4). This structure reflects the SVO word order.
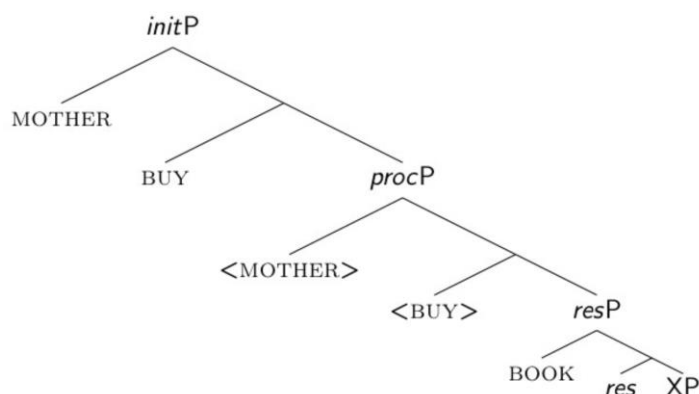

Fig. 4. The syntactic representation of 'Mother bought a book'.

(16)   RSL (elicited)

MOTHER BUY A BOOK

'Mother bought a book.'

Taking into account the position of manual negator NOT, namely that it always follows the predicate, and may replace resultative secondary predicates, I claim that NOT is part of a complex predicate, and V takes NOT as a complement (Fig. 5). In this case there is no *res*P that licenses Subject of 'result'. Object in negative sentences occupies the Spec VP instead of the Spec RP position. This analysis immediately explains the observed word order. However, the analysis at this stage is incapable of deriving the sentential scope of negation. The semantic
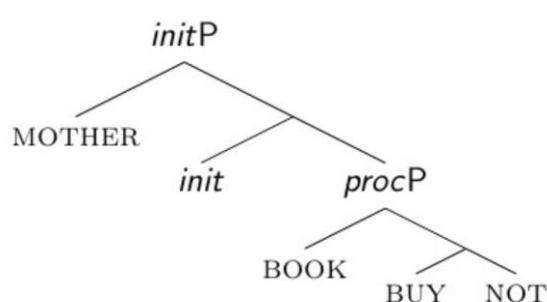

Fig. 5. The syntactic representation of 'Mother did not buy a book'.

However, this study did not address the semantic representation of negation, so this analysis at this stage is incapable of deriving the sentential scope of negation. The semantic derivation of negation will be a subject of further study.

6. Conclusions

In this paper, I thoroughly described how sentential negation is expressed in RSL. In Section 2, I first provided the general overview of RSL. Section 3 showed the methodology of the study. In Section 4, I presented the data of negation in RSL. This included the description of manual negators, and non-manual negation. The most popular strategy is to negate a sentence by the manual negator NOT. Its position is always after the predicate, and clause-final, what changes the basic word order. The predicate and NOT constitute one entity. As for non-manual negation, there are two main groups: facial expressions and head movements. Non-manual negation always accompanies a negative word. There are cases when non-manual negation spreads over a whole sentence. Finally, in Section 5, I proposed my analysis, where I located a manual negator as a complement of a predicate, what allowed to explain the word order change.

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