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# **GRADABLE PREDICATES IN RUSSIAN SIGN LANGUAGE**

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## **GRADABLE PREDICATES IN RUSSIAN SIGN LANGUAGE<sup>2</sup>**

This paper aims at describing the syntactic and semantic properties of gradable predicates in Russian Sign Language (RSL). Property signs in RSL, such as BIG or BEAUTIFUL, generally behave similarly to stative predicates. However, their compatibility with the degree modifiers and aspectual markers shows that they significantly differ from other stative verbs. Thus, they can be categorized as a separate adjective class. In addition to that, adjective class in RSL is not homogeneous. Property signs of age and size form the core of this syntactic category.

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Keywords: property signs, Russian Sign Language, categorical status of adjectives, gradable predicates.

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## 1. Introduction

Property signs in Russian sign language (RSL), such as COLD, DRY, OLD generally function as intransitive stative predicates. Syntactically they seem to behave just like unaccusative predicates, e.g. BURN or LAUGH, or some activity verbs, e.g. RUN (Kimmelman 2018). Property signs, as well as other intransitive predicates, are compatible with aspectual and tense markers, and can be used predicatively in both main and embedded clauses:

(1) HOUSE BEAUTIFUL PAST

‘The house was beautiful.’

(2) IREMEMBER KREMLIN WALL RED

‘I remember that Kremlin wall is red.’

Moreover, property signs in predicative position can be used in coordination with verbs:

(3) a. MY FRIEND YOUNG NOT LOVE PARTY

‘My friend is young, [but she] doesn’t like parties.’

b. {Why don’t you have a girlfriend?} MOSCOW GIRL ALL BEAUTIFUL BUT ALL SMOKE

‘In Moscow all girls are beautiful, but they all smoke.’

c. BOYS CLASS ALL TALL PLAY BASKETBALL

‘Boys in my class are all tall and all play basketball.’

d. WINDOW ILOOK GIRL INDX GOES BEAUTIFUL

‘I look in the window and see a beautiful girl walking’ (lit.: ‘Girl she goes. [She is] beautiful.’

Property signs can function as argument modifiers, too (4), but my data suggest that RSL signers prefer to use them predicatively. My informants preferred to parcel long sentences with noun modifiers into two small clauses, in which property signs were used predicatively (5). I hypothesise that this is due to the fact that people can store fewer signs than words in short term memory (Boutla et al. 2004; Geraci et al. 2008), and for sign language users it might be difficult both to process and to generate long sentences.

(4) OLD TEACHER-PL WHOLE DIE-DISTR (Kimmelman 2018)

‘All the old teachers died.’

(5) 1LOOK GIRL BOY BEAUTIFUL INDX GO LOOK INTERESTING

‘I see a beautiful girl and boy walking, that’s interesting’ (lit.: ‘Boy and girl are beautiful, they walk’).

Thus, it is not clear whether RSL has adjectives as a separate part of speech. Since they have similar grammatical properties to those of intransitive verbs, it might be possible to claim that adjectives in RSL are in fact stative verbs, just like adjectives in Vietnamese, Korean, or Mandarin Chinese (Dixon 2010, Dixon & Aikhenvald 2004).

However, adjectives are semantically different from both verbs and nouns. As Otto Jespersen (Jespersen 2013) points out, adjectives denote only one property, as contrasted to nouns and verbs which denote a set of properties.

This is why adjectives are the best candidates to be gradable (Kamp 1975): as they have only one feature that can be expressed in different degrees. Nouns and verbs, by contrast, have multiple semantic features, and it is not evident, which of them should be promoted as a standard of comparison. Thus, I expect property signs in RSL to have a capacity to be specified for the degree (the extent to which property holds) and to combine with degree words that are incompatible with nouns or verbs.

This article is structured as follows: our data and methodology are presented in Section 2. In Section 3 I describe comparative constructions in RSL. In Section 4 I analyse the compatibility of degree signs with both gradable and non-gradable predicates in RSL. Section 5 is devoted to the analysis of semantics of aspectual markers, applied to gradable predicates. Section 6 represents the discussion of my findings.

## **2. Methods**

In this study, I used both corpus data and elicitation. The data from informants was collected in Novosibirsk in February 2019 and in Moscow in the period from autumn 2018 to autumn 2019. In total, I have data from 18 informants from Novosibirsk and 6 informants from Moscow.

In this particular study, I had to take into account that Russian signers might use calque sign speech (CSS). CSS reflects grammatical and semantic patterns of spoken Russian. The grammatical information, such as agreement inflection markers, is generally expressed with the help of fingerspelling, while the word order in CSS is the same as in spoken Russian. Thus, CSS systematically reflects the structure of spoken Russian, therefore the use of CSS by deaf signers should be considered not as borrowing from Russian, but as code-switching between two lects (Burkova 2012-2015). Consequently, CSS restricts the researchers to use stimuli with spoken Russian during elicitation sessions. Even the special techniques of code-switching prevention do not guarantee that signers would not use CSS instead of RSL when the written Russian stimuli are used (see Klezovich, Aksenov 2018 for the discussion).

In order to prevent the use of CSS, the following elicitation technique was elaborated. The informants were sitting in pairs in front of the camera. Behind the camera, a professional RSL interpreter described to the informants a particular situation in RSL and then asked them how they would retell it to their partner. The informants were instructed to elaborate or/and correct their partners if they disagree. Since Deaf signers worked in pairs, they considered the communicative situation as “natural” (as their addressees were Deaf or hard-of-hearing too) and did not switch to CSS. On average, the elicitation session lasted for an hour for each pair of informants. The questionnaire contained fillers, which belong to another research topic.

As for corpus data, I used an online RSL corpus created at Novosibirsk State Technical University in 2012 (Burkova 2012-2015). This is a collection of spontaneous narratives (monologues and dialogues), and stories elicited on the basis of stimulus materials (cartoons retelling, picture-based storytelling) by signers with varying degrees of deafness: Deaf, hard-of-hearing, and CODAs. The data is annotated in ELAN.

In this research, I concentrated on signs denoting dimension (SMALL, BIG), color (RED, BLACK), age (OLD, YOUNG), and value (GOOD, BAD). First, all these signs are gradable, and thus I expect them to show some properties, unattested on other signs. Second, according to Dixon (2010), these four core semantic classes are generally associated with adjectives even in languages with small adjective classes.

Data on comparative constructions was collected in Novosibirsk, while data for aspectual and degree modification was collected in Moscow.

### 3. Comparative constructions in RSL

Sign languages generally don't have comparative affixes. The apparent exception is ALS, where a comparative affix was presumably borrowed from spoken English (see Figure 1). However, unlike its English counterpart, it has a more restricted distribution and can be attached to a very limited number of signs. All the signs compatible with comparative suffix belong to Dixon's list of basic adjectives. As for superlative suffix in ALS, it is compatible only with the sign GOOD (Sandler, Lillo-Martin 2006).

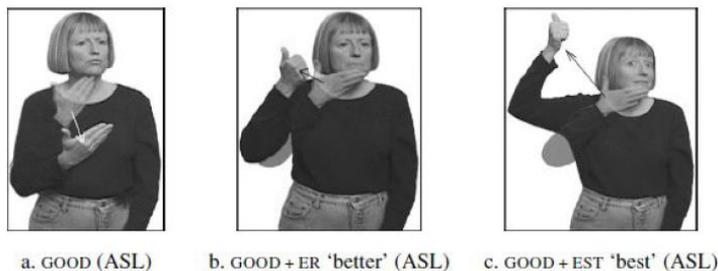


Figure 1. Comparative affixes used for the sign GOOD (from Sandler, Lillo-Martin 2006).

However, generally, sign languages (and ASL is not an exception) make use of a comparative strategy that does not require comparative markers (Aristodemo & Geraci 2015, Özsoy & Özparlak 2015). Namely, in Stassen's (1984) terminology they choose conjoined comparative strategy, which means that two NPs are compared by means of coordination of two clauses, showing syntactic parallelism (6).

- (6) Kaw-ohra    naha    Waraka,      kaw    naha    Kaywerye  
tall-not      he-is    Waraka,      tall    he-is    Kaywerye
- 'Kaywerye is taller than Waraka' (*Hixkaryana*, Kennedy 2005)

In (7) two gradable predicates are opposed directly so that no comparative marker is needed. Consider a similar example from Turkish SL (TİD):

- (7) {TWO MEN} ONE MAN TALL ONE MAN SHORT
- '{(There are) two men.} One is tall. One is short.' (TİD, Özsoy & Kaşıkara)

While in example (6) the direction of comparison is shown by means of negation on a gradable predicate in the first conjunct (tall vs not tall), in example (7) the direction of comparison is shown with antonyms (tall vs short). In contrast to previous examples, Italian

SL (LIS), which also uses conjoint comparative strategy, indicates the direction of comparison with the help of a comparative morpheme, incorporated into the predicate of the second clause (see example (8)).

(8) MARIA TALL GIANNI (TALL)-SCALE-MORE

‘Gianni is taller than Maria.’ (LIS, Aristodemo & Geraci 2015)

### 3.1 Main comparative strategy in RSL

RSL, just like TID in the example above, shows the direction of comparison with antonyms:

(9) BOY FAT GIRL SLIM

‘A boy is fatter than a girl’.

Note that (9) is ambiguous: it could mean either that a boy is fat, while a girl is not, or that both boy and girl are fat, but the boy is fatter. In RSL, it is possible, however, to convey only the second meaning by means of particular degree signs:

(10) BOY A.BIT FAT GIRL FAT TOO.MUCH

‘The girl is fatter than the boy.’

Comparative construction in RSL is not restricted to property sign. Verbs can enter it as well:

(11)  $INDEX_A$  WORK.HARD  $INDEX_B$  LAZY REST

‘One [student] works better than the other one’, lit. ‘One [student] works hard, and the other one is lazy, he chills out’.

As it was shown above, sometimes comparative construction is built up without the antonyms, but with the use of degree words. Signers opt for this strategy when the use of antonyms is impossible (12), or when both comparees have the same property, but with different extent (13):

(12)  $INDEX_A$  RED STRONG BRIGHT  $INDEX_B$  WEAK

‘[The sofa] is very red, and [the bag] is less red’.

(13) JUMPER VERY RED CURTAIN RED

‘The jumper is redder than the curtain.’

(14) P-E-T-Y-A JUMP STRONG V-A-S-Y-A SO.SO

‘Petya jumps better than Vasya’ lit. ‘Petya jumps good, Vasya [jumps] bad.’

(15) I SEE BEAUTIFUL INDX A DANCE BEAUTIFUL INDX B SEE SO.SO

‘[One girl] dances better than [another girl]’ lit. ‘I see [one girl] is dancing good, I see [another girl] is dancing not so good.’

(16) INDX<sub>A</sub> CLEVER STRONG INDX<sub>B</sub> WEAK CLEVER

‘One boy is more clever than the other boy’ lit. ‘[One boy] mind strong, [another boy] weak mind.’

### 3.2 Adjectives of size and age in comparative constructions

Unlike other property signs, adjectives of size are not body-anchored and make use of space. This allows signers to express comparison simultaneously.

(17)



Right hand: BOY [TWO] HIGHER

Left hand: LOWER

‘One boy is taller than the other.’

For instance, in example (17), each hand denotes the size of each discourse participants, indicating that one boy is taller than the other. In example (18), the classifier construction is implemented. Firstly, an informant articulates a house, and, secondly, a passive hand is held, while the active hand denoting a tree is placed higher in signing space.

(18)



Right hand: HOUSE TREE:HIGHER

Left hand: HOUSE:LOWER

‘The tree is higher than the house.’

For some of the informants, this HIGHER/LOWER strategy was acceptable not only with the adjectives of size but also with the adjectives referring to age. However, RSL also makes use of a separate construction, dedicated to a comparison of age. Namely, our informants used a sign ADULT, which shows agreement with discourse participants. Although this sign is body-anchored (located on the chin), it also pointing to express the direction of comparison.

(19)



Right hand:     $INDX_A$  A.BIT OLDER

Left hand:     $INDX_B$ -----

{There are two boys} ‘The one is older than the other.’

#### 4. Compatibility with degree signs

In many languages, adjectives can be combined with degree modifiers of various kinds that do not co-occur with verbs and nouns (e.g., very big, cf. \*very work). Dixon (2010) mentions the possibility to be modified by an intensifier meaning ‘very’ among useful criteria to distinguish adjectives from the other parts of speech.

However, sign languages tend to express degrees on gradable predicates non-manually. In ASL, for instance, a sign for very is considered ‘English register’ rather than ASL and is not used by native signers. Instead, the signer modifies degree signs either with non-manuals (frown on face), either by modifications of a movement, e.g. enlarge movement trajectory (Wilbur et al. 2012).

Common mechanisms of adjectival and adverbial modifications are used in Italian sign language (LIS) (Fornasiero, E. 2016). For instance, in Figure (2) the sign BIG is emphasised by enlarging its articulation and marking it with NMMs.

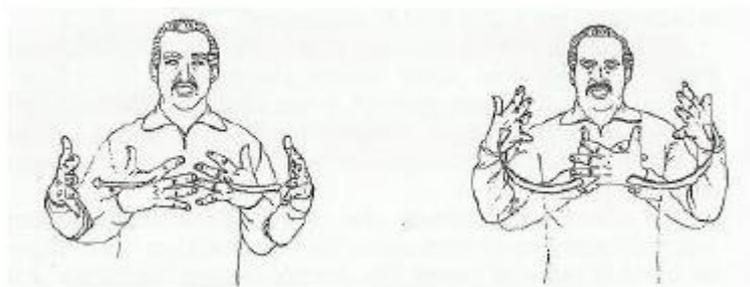


Figure 2. The signs meaning ‘big’ and ‘very big’ in LIS (Fornasiero, E. 2016)

However, it must be mentioned that the same non-manuals and movement modifications can be used to add adverbial information to verbs. Figure (3) illustrates that LIS makes use of non-manuals to express adverbial meaning on verbs.



Figure 3. Non-manuals expressing adverbial meaning on verbs in LIS (Fornasiero, E. 2016)

RSL as well makes uses non-manuals and movement modification in order to express a degree on adjectives. For instance, in Figure 4, the sign OLD is accompanied with a frown face and apparent slowdown of movement component in order to express the meaning ‘very old’. However, the same non-manuals can be used in adverbial function when modifying a verb in order to convey the meaning ‘run very fast’ or ‘have a severe fight’.



Figure 4. VERY OLD                      RUN VERY FAST

Thus, the capacity to be modified by non-manual adverbials is not a unique trait of property signs in RSL. Nevertheless, RSL also has a set of manual degree modifiers, that have nontrivial distribution:



Figure 5. STRONG

VERY

CRAZY

The sign VERY seems to be restricted to stative predicates. It can be used with adjectives like OLD, SMART, TALL, or SLIM, as well as with verbs like LOVE, but never with verbs like RUN or SWEAR.

(20)

- a. MY GRANDPA VERY OLD OFTEN GRUMBLE

‘My grandpa is very old. He always grumbles.’

- b. I LOVE COMMUNICATE VERY SMART PEOPLE

‘I love to communicate with very smart people.’

- c. <sub>1</sub>HAVE HOUSE <sub>1</sub>HAVE TREE VERY TALL

‘There is a very big tree near my house.’

- d. MY SISTER VERY SLIM

‘My sister is very slim.’

- e. READ D-O-S-T-O-E-V-S-K-Y ALREADY VERY LOVE

‘I am reading Dostoevky’s book and I love him already.’

The sign CRAZY, by contrast, has a tendency to be used with activities. It is incompatible with signs TALL or OLD.

(21)

- a. MOTHER CRAZY BE.ANGRY SCREAMS ON BABY

‘Mother is very angry and she screams on her baby.’

b. STREET THERE RAIN CRAZY

‘There is a strong rain in the street.’

c. PARENTS SWEAR CRAZY

‘Parents have a severe fight.’

In addition to that, this sign can also be used with stative verbs and some property signs:

(22) a. I CRAZY LOVE {my boyfriend}

‘I love my boyfriend very much’

b. SHE CRAZY BEAUTIFUL

‘She is very beautiful’

c. MY SISTER CRAZY SLIM

‘My sister is very slim’

d. I LOOK CRAZY DIRTY FLOOR

‘I see that the floor is very dirty’

Moreover, with the sign BEAUTIFUL, CRAZY is even preferred over VERY. I hypothesize that the sign CRAZY, as it is primarily used in active contexts, is oriented towards the utterance time. It has an additional semantic component that expresses signer’s attitude to what she sees. Thus, SHE VERY BEAUTIFUL should mean ‘She is very beautiful (always), I know that’, while SHE CRAZY BEAUTIFUL means ‘She is very beautiful (now, when I’m looking at her), that it affects me’.

As for the sign STRONG, it is used primarily by our informants from Novosibirsk. Some of Moscow’s signers said that they never use this sign. Corpus data suggest that semantics of STRONG is close to that of CRAZY:

(23)

a. STRONG RAIN

‘It rains heavily’

b. MOTHER INDEX STRONG TIRED

‘Mother is very tired’

c. INDX PLAY.BASKETBALL STRONG

‘They play basketball well’

Corpus does not give negative judgments, but there are no examples of STRONG modifying signs of age or size.

## 5. Aspectual markers

Filimonova (2016) in her dissertation on aspectual markers in RSL describes the sign BEGIN as an inceptive marker which encodes the starting point of a process and is not compatible with stative predicates, such as LOVE, BELIEVE, HATE, WAIT. Indeed, this sign is compatible with active verbs, such as WORK, READ, RAIN, and etc.:

(24) COME BEGIN WORK

‘I came back [after lunch] and started working.’

{I came to the cafe, but my friend is not there still’

\*I BEGIN WAIT

intended: ‘I started waiting’

Remarkably, those property signs are compatible with the sign BEGIN. However, in this case, they have different semantics compared to verbs. With gradable adjectives, the sign BEGIN marks not a change of state by itself, but rather a starting point of that change:

(25) a. MOTHER BEGIN OLD

‘The mother has started to turn old.’ (she is not old yet)

b. BOY BEGIN FAT

‘A boy has started to get fat.’ (he is not fat yet)

c. I BEGIN RUN

‘I started running.’ (now I run)

d. INDX GIRL INDX HUSBAND POSS INDX WORK INDX LOOSE BEGIN DRINK:ALCOHOL

‘Her husband lost his job and started drinking.’ (now he drinks)



Figure 6. BEGIN ALREADY BECOME

It happens due to the fact that adjectives are gradable, and the property which they denote can be expressed with a different degree.

Another aspectual marker described by Filimonova is the sign ALREADY. When applied to verbs, it serves as completive/perfect marker (26). When applied to stative predicates, BEGIN encodes a change of state.

(26) INDX READ ALREADY

‘Have you finished reading the book?’

(27) a. INDX3 INDX1 BEGIN TELL ALREADY SMART

‘He told me [about art], now I am smart’ (I wasn’t smart before)

b. I SAW [A GHOST] ALREADY BELIEVE

‘I saw a ghost, and now I believe [in ghosts]’

In addition to this, RSL has a sign BECOME, that also marks a change of state. However, it is compatible only with property signs, but not with stative verbs:

(28) a. A.LOT EAT BECOME FAT

‘He ate a lot and became fat.’

b. CAT BECOME OLD

‘My cat grew old.’

c. \*BOY BECOME RUN

intended: ‘Boy started running.’

d. \* I BECOME BELIEVE

intended: ‘Now I believe.’

## **6. Conclusions and discussion**

In this paper, I showed that adjectives, as gradable predicates, significantly deviate from other stative verbs in RSL, though they have some common traits. First, both adjectives and stative verbs are compatible with the sign *VERY*. Second, they receive the same semantics when modified by a sign *BEGIN*. However, only adjectives can be combined with the sign *BECOME*.

Moreover, the adjectival class is not homogeneous. Note that signs of size and age have a specific dedicated comparative strategy. In addition to that, the signs *TALL* and *OLD* are incompatible with the sign *CRAZY*, while other property signs (like *BEAUTIFUL*) can be modified by it. This makes me conclude that signs of size and age form a core of adjectival class in RSL, as they have least common traits with stative verbs than all other adjectives.

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