Degree Modification in Russian Morphology: The Case of the Suffix *-ovat*

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1. Introduction: Data

In this paper, we investigate the semantics of the adjectival suffix *-ovat* in Russian as in the following examples where it is applied to the adjectives *dorogoj* 'expensive' and *vysokij* 'high':

(1) a. Etot restoran okazalsja dlja nas dorog-ovat-ym.
this restaurant turned_out for us expensive-ovat-MASC.INSTR
'This restaurant turned out to be somewhat expensive for us.'

b. Takije kabluki dlja menja vysok-ovat-y.
such heels for me high-ovat-PL.NOM
'Such heels are somewhat too high for me.'

Intuitively, the interpretation associated with *-ovat* comes close to "a little bit too": The prices in the restaurant in (1a) slightly exceeded the speaker's expectations or average prices for restaurants of that type, but were still not simply *too* expensive such that the speaker was not able to pay them. Similarly, the heels in (1b) are somewhat too high for the speaker as to be absolutely comfortable or to look completely appropriate, however, they are *only somewhat* too high rather than just too high.

However, it seems that *-ovat* can make different contributions with different adjectives. While with *dorogoj* 'expensive' and *vysokij* 'high' in (1) its meaning is comparable to that of the English *slightly too*, this is not the case with adjectives like *sladkij* 'sweet' or *vlažnyj* 'wet' as below:

(2) a. Po utram on pjot proxladnyj sladk-ovat-yj čaj s limonom.
at mornings he drinks cool sweet-ovat-MASC.ACC tea with lemon
'In the mornings, he drinks cool sweetish tea with lemon.'

b. Lena protjorla mebel' vlažn-ovat-oj trjapkoj.
Lena wiped furniture wet-ovat-FEM.INSTR duster
'Lena wiped the furniture with a wettish duster.'

In examples in (2), *-ovat* implies that the property lexicalized by the stem holds of the argument to an intuitively low degree, e.g., the tea in (2a) is not really sweet, rather it is only somewhat sweetish. In other words, 'sweet + *-ovat*' does not entail 'sweet'. The same holds for *vlažnovatyj* in (2b), which implies that objects, of which it is true, are not properly wet, but are not really dry either. Again, this means the lack of entailment to the meaning of the unmodified positive form *vlažnyj* 'wet'.

Another interesting fact concerning the distribution of *-ovat* is that it can be attached to some adjectives but not to others:

(a) it is incompatible with non-gradable adjectives, such as *žyvoj* 'alive', *mjortvyj* 'dead', or *čjotnyj* 'even'; thus, **žyvovatyj*, **mertvovatyj*, and **čjotnovatyj* are not acceptable forms;

(b) in many pairs of positive and negative adjectives that lexicalize scales with the same dimension, the suffix can be attached to one member of the pair only, namely, to the one that conventionally has a negative connotation, e.g. *grjaznovatyj* (dirty+ *-ovat*) / **čistovatyj* (clean+ *-ovat*); *ploxovatyj* (bad+ *-ovat*) / **xoroševatyj* (good+ *-ovat*); *dorogovatyj* (expensive+ *-ovat*) / **deše(vo)vatyj* (cheap+ *-ovat*); *tolstovatyj* (thick + *-ovat*) / **xudovatyj* (thin + *-ovat*); *glupovatyj* (stupid + *-ovat*) / **umnovatyj* (smart + *-ovat*); *slabovatyj* (weak + *-ovat*) / **sil'novatyj* (strong + *-ovat*);

(c) in some other pairs, by contrast, both the positive and the negative member can combine with the suffix, e.g. *dlinnovatyj* (long+ *-ovat*) / *korotkovatyj* (short+ *-ovat*); *širokovatyj* (broad + *-ovat*) / *uzkovatyj* (narrow + *-ovat*); *tjaželovatyj* (heavy + *-ovat*) / *legkovatyj* (light + *-ovat*);

Finally, we assume that in some cases the suffix cannot attach to a root due to purely morpho-phonological factors, such as, e.g., the length of the word or euphony, cf. **interesnovatyj* 'interesting + *-ovat*', **agressivnovatyj* 'aggressive + *-ovat*', **vinovatovatyj* 'guilty + *-ovat*', **prostodušnovatyj* 'simple-minded + *-ovat*'. For instance, the suffix is unlikely to combine with a stem that consists of more than two syllables. However, in what follows we will ignore such cases and concentrate on the semantic-pragmatic nature of the suffix.

The core idea of our analysis is that the suffix *-ovat* functions as a degree modifier, similarly to comparative morphemes. We argue that it imposes a relation between two degrees on the scale lexicalized by the adjectival root. One of them is the maximal degree to which the property holds of the individual argument of the adjective. It is entailed to slightly exceed the other one, namely, the standard of comparison.

The paper is structured as follows. In Section 2, we briefly discuss the necessary theoretic considerations about scales, degrees, and standards of comparison, mainly based on work by Kennedy and McNally (2005) and Heim (2000). In Section 3, we set forth our analysis that accounts for the data from Section 1. We systematically discuss different types of adjectives, both non-gradable adjectives and various sub-classes of gradable adjectives, and different types of standards of comparison, which *-ovat* can apply to. Section 4 contains some open questions for further research. Finally, Section 5 concludes the discussion.

2. Scales and Standards

2.1 Types of Scales

Following a number of studies on the semantics of gradable adjectives (Cruse 1980, Winter and Rotstein 2004, Kennedy and McNally 2005, Kennedy and Levin 2007, among many others), we assume that the meanings of gradable adjectives can be characterized in terms of scales and degrees, defining a scale as a set of degrees totally ordered along some dimension. Depending on the structure of the scale, the following subtypes of scales have usually been distinguished:

(a) ***totally open scales***: such scales do not have minimal or maximal points, and, therefore, adjectives that map their arguments along such scales are not compatible

with degree modifiers that pick out end points, e.g., *absolutely* and *completely* for the maximal degree, *slightly* and *partially* for the minimal degree;
- *tall*, *expensive*, *deep*, *glad*, *heavy*, etc.

(b) ***upper-bound closed scales***: the property has a maximal possible degree, which constitutes the upper bound of the scale; the corresponding adjectives can be modified by *absolutely* and *completely*;
- *clean*, *dry*, *flat*, *straight*, etc.

(c) ***lower-bound closed scales***[1]: the property is instantiated to at least a smallest value, which follows the zero degree at the lower bound of the scale; adjectives with underlying scales of this type can be modified by *slightly* and *partially*;
- *dirty*[2], *wet*, *bumpy*, *dangerous*, etc.

Applying this distinction to Russian adjectives, we can see that adjectives like *dorogoj* 'expensive' / *dešovyj* 'cheap' and *vysokij* 'high' / *nizkij* 'low' lexicalize totally open scales lacking both a minimal and a maximal degree, since neither *soveršenno* 'absolutely' nor *slegka* 'slightly' is compatible with either of them:

(3) a. #soveršenno vysokij / #slegka vysokij
#absolutely high / #slightly high
b. #soveršenno nizkij / #slegka nizkij
#absolutely low / #slightly low
c.

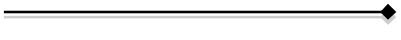
nizkij vysokij **à** highness

d.

vysokij nizkij **à** lowness

Adjective pairs like *grjaznyj* 'dirty' / *čistyj* 'clean' and *sladkij* 'sweet' / *nesladkij* 'not sweet' lexicalize partially closed scales. More precisely, 'clean' and 'not sweet' map their arguments along upper-bound closed scales (with the maximal degree at the upper bound), while 'dirty' and 'sweet' map their arguments along lower-bound closed scales (with the minimal degree at the lower bound):

(4) a. soveršenno čistyj / #slegka čistyj
absolutely clean / #slightly clean
b. #soveršenno grjaznyj / slegka grjaznyj
#absolutely dirty / slightly dirty
c.



grjaznyj čistyj **à** cleanness (max)

[1] Yoon (1996) and Rotstein & Winter (2004) alternatively use the terms "total" and "partial" for antonymous adjectives lexicalizing upper- and lower-bound closed scales respectively.

[2] Antonymous members in pairs of gradable adjectives (such as *clean* and *dirty*) map their arguments onto scales with the same dimension and the same degrees. However, their scales are different, since the respective orderings are inverse (but see Kennedy (2001) and Kennedy & McNally (2005) for an alternative view, on which such antonyms lexicalize the same scale but involve positive versus negative degrees).

d.

à dirtiness (min)

čistyj grjaznyj

An important implication that Kennedy and McNally (2005) draw from the fact of differences in the scale structure concerns the nature of the standard of comparison.

Gradable adjectives, which map their arguments along totally open scales, are claimed to have a context-dependent standard of comparison, therefore they are called ***relative*** gradable adjectives. This type of standard of comparison, called ***distributional standard*** throughout the paper, is determined with respect to the domain of the adjective, i.e., based on the distribution in the class of objects, which constitute the comparison set in the respective context. The objects, which the positive form is true of, "stand out" with respect to the property that the adjective encodes.

By contrast, gradable adjectives, which map their arguments onto degrees on scales closed from at least one end, are supposed to have a context-independent ***absolute standard*** of comparison that corresponds to the minimal or maximal degree on the scale. These adjectives have been dubbed ***absolute*** gradable adjectives. The standard of adjectives with upper-bound closed scales corresponds to the maximal degree, i.e., they require their arguments to possess a maximal amount of property they describe (e.g. *čistyj* 'clean' and *nesladkij* 'not sweet'). Adjectives with lower-bound closed scales have their standard at the minimal degree on the scale, i.e., they require their arguments to possess some minimal degree of the relevant property (e.g. *grjaznyj* 'dirty' and *sladkij* 'sweet').

However, in addition to a distributional standard for relative gradable adjectives and an absolute standard for absolute gradable adjectives, we assume the existence of a ***functional standard*** for all types of gradable adjectives, which is determined relative to some purpose relevant in the context of utterance. In other words, each member of a pair of relative adjectives has both a distributional standard (calculated with respect to the distribution in the class) and a functional standard (calculated with respect to a contextually supplied purpose). Similarly, each member of a pair of absolute adjectives has both an absolute standard (either the maximal or the minimal degree) and a functional standard. The nature of the functional standard will be discussed in greater detail in the next section.

2.2 Functional Standard

The functional standard is the maximal degree on the interval consisting of degrees that are compatible with the requirements of the situation. The most typical case when this standard is invoked is the modification by the degree modifier *too* (Heim 2000, Meier 2003). A sentence of the form *x is too P* means, roughly, that x is characterized by the property P to a degree that is higher "than is compatible with certain (contextually given) goals or desires" (Heim 2000: 19). These goals or desires can be provided explicitly, as in (5), or need be inferred from the context, as in (6):

(5) a. Our truck is too tall to go through this tunnel.
b. This concert is too long to burn to a single CD.

(6) These heels are too high.
a. Therefore, it is uncomfortable to wear them.
b. Therefore, they look awkward.

c. Therefore, they break all the time.
d. …

The contextually relevant goals for the sentences in (5) are packed in a *to*-phrase: to go through a certain tunnel in (5a) and to burn a concert to a CD in (5b). The corresponding functional standards in these contexts, i.e., the maximal degrees of height and length that are compatible with the respective goals, although not provided explicitly, are recoverable from the situation. For the sentence in (5a), this degree corresponds to the height of the tunnel; for the sentence in (5b), it corresponds to the volume of the CD.

By contrast, the contextually relevant goal/desire for the sentence in (6) remains implicit and can vary from context to context. It may be the desire that shoes should be comfortable or the goal to look appropriate in a society, or, essentially, any other contextual requirement with respect to heels or shoes as a whole.

Interestingly, it seems that the functional standard of gradable adjectives can be evoked also in the absence of modifiers such as *too*. The positive form appears to be able to access it as well, as the example below illustrates:

(7) - Let's buy this book for $7?
- No, that's expensive. We only have $6.

Books that cost $7 are usually not considered to be expensive nowadays, i.e. the distributional standard of expensiveness for books lies higher. However, in the context, in which the money limit is $6 and the goal is to buy a book within this limit, a book that costs $7 exceeds the desirable cost and is therefore (too) expensive.

Evidently, the functional standard is less accessible for the positive form of gradable adjectives, as it seems to require special contexts; the distributional standard is far more salient for it. However, examples such as in (7) demonstrate that the functional standard is in principle available for it too.

Heim (2000) captures the meaning component contributed by *too* by assigning this item a modal semantics (see also Meier 2003 for a similar modal analysis of this construction). The analysis she proposes is provided in (8):

(8) $[[too]]^w = \lambda P_{<s,dt>} . \max(P(w)) > \max\{d: \exists w' \in Acc(w): P(w')(d) = 1\}$

The construction *x is too P* implies that the maximal degree to which *P* holds of *x* in the reference world *w* is higher than the maximal degree to which *P* holds of *x* in any possible world that stands in a particular accessibility relation to *w*. The accessibility relation *Acc* maps a world *w* to a set of worlds in which the contextually specified purposes or desires are achieved or satisfied, and which are similar to *w* in other relevant respects. As demonstrated above, the nature of the accessibility relation varies from context to context.

What has been called the functional standard throughout this paper is represented in Heim's analysis in (8) as $\max\{d: \exists w' \in Acc(w): P(w')(d) = 1\}$, i.e., it is the maximal degree that is compatible with the situation requirements. For the sake of simplicity, below we will abbreviate this formula simply as *C* to refer to the functional standard, following Nakanishi (2004).

3. A Unified Analysis of *-ovat*

We propose that the suffix *-ovat* is a morphological degree modifier. It provides information regarding the degree to which the argument possesses the property lexicalized by the stem. The suffix imposes a relation between this degree and the standard of comparison. The semantics of *-ovat* is provided in (9):

(9) $\lambda P_{<d,et>}\lambda d'_{d}\lambda x_{e}$. $\max\{d: P(d)(x)\} > d' \wedge (\max\{d: P(d)(x)\} - d' < d_c)$

In prose, the suffix specifies that the maximal degree *d* to which a property *P* holds of an individual *x* is higher than another degree *d'*, i.e., the standard of comparison, whose source will be discussed below. It further specifies that the difference between the two degrees is relatively low, i.e., lower than d_c, which represents a contextually provided expectation value. Thus, the suffix fulfils the double function of (i) imposing a relation between two degrees on a scale and (ii) vaguely measuring the difference between these degrees.

Below, we argue that *-ovat* consistently contributes the semantics in (9). The different sub-meanings of the suffix, discussed in Section 1, arise by virtue of the fact that the suffix can apply to different types of standards of comparison. In what follows, we systematically discuss the application of *-ovat* to adjectives with underlying scales of different types and different standards of comparison.

3.1 Non-Gradable Adjectives

The analysis predicts correctly that *-ovat* cannot attach to non-gradable adjectives. Degree modifiers require their adjectival argument to be gradable (Kennedy and McNally 2005). If it is not gradable, a type mismatch occurs. The adjectives **žyvoj* 'alive', *mjortvyj* 'dead', and *čjotnyj* 'even' are not gradable and, therefore, they are of type <e,t> (the property type). But the suffix requires an argument of type <d,<e,t>>. Hence the unacceptability of such forms as **žyvovatyj*, **mjortvovatyj*, and **čjotnovatyj*[3]. On a more intuitive level, the adjectival stems do not provide a degree which could then be compared to the standard of comparison.

On a prominent **alternative view**, non-gradable antonyms such as *dead* and *alive* **are** scalar: they are taken to lexicalize a two-point scale (cf. Kennedy and McNally 2005, Rappaport Hovav 2009). The points are *not dead* and *dead*, or 0 and 1. Arguably, under this approach such adjectives can be assigned the type <d,<e,t>>, and thereby analyzed on a par with gradable adjectives.

Even if this approach is assumed, (9) predicts the incompatibility of *-ovat* with non-gradable stems. Since the scale contains only two points, there are only two potential standards which the degree *d* can be compared to. The higher point, i.e., 1 on the scale, cannot serve as a standard: this is the maximal point on the scale; therefore, *d* cannot be higher than this point. The lower point could potentially serve as the standard: *d* can be higher than 0. However, the second condition imposed by the suffix cannot be fulfilled then. The moment *d* is higher than 0, it has to be identical to 1, since the scale is discrete and provides no other alternatives. The difference between the two degrees cannot be treated as relatively small then, since this is, in fact, the maximal difference between two degrees that is possible on this scale.

[3] Note that the unacceptability of **žyvovatyj* and **mjortvovatyj* cannot be explained phonologically by the fact that the stem ends in the consonant *-v-*. This is shown by the acceptability of such adjectives as *krivovatyj* and *čerstvovatyj*, whose stems end in *-v-* as well. Further, the same kind of phonological explanation could not apply to the non-existence of such adjectives as **čjotnovatyj*.

3.2 Gradable Adjectives: Absolute Standard
3.2.1 Lower-Bound Closed Scales

If the scale lexicalized by the stem is lower closed and, thus, has a minimal value, it is to this value that the suffix applies. Thus, the lowest degree on the scale functions as the standard of comparison.

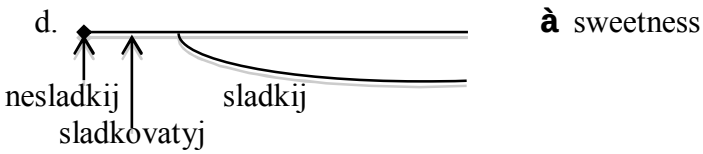
Let's illustrate the application of *-ovat* to adjectives with underlying lower-bound closed scales *sladkij* 'sweet'. The compatibility with *slegka* 'slightly' but not with *soveršenno* 'absolutely' indicates that this adjective lexicalizes a lower-bound closed scale, which has a minimal value and no maximal value (an entity can be absolutely not sweet, but not absolutely sweet):

(10) a. Čaj slegka sladkij.
tea slightly sweet
'The tea is slightly sweet.'
b. #Čaj soveršenno sladkij.
tea absolutely sweet
'#The tea is absolutely sweet.'

The adjective *sladkovatyj* denotes the property of being slightly sweet, e.g. *sladkovatyj čaj* is tea that contains a small amount of sugar. The argument of *sladkovatyj* is entailed to possess sweetness to a degree that is slightly higher than the minimum. This meaning is derived in the following way:

(a) The semantics of *sweet* is provided in (11a).
(b) The result of application of *-ovat* to the stem *sladk-* reveals the representation in (11b). The maximal degree to which the argument of the resulting adjective is sweet slightly exceeds the standard of comparison, i.e., the minimal degree on the scale.
(c) The resulting function applies to the standard of comparison associated with the stem, and we get the meaning in (11c).

(11) a. $\lambda d \lambda x$. sweet(d)(x)
b. $\lambda d' \lambda x$. $\max\{d: \text{sweet}(d)(x)\} > d' \wedge (\max\{d: \text{sweet}(d)(x)\} - d' < d_c)$
c. λx . $\max\{d: \text{sweet}(d)(x)\} > \min(S_{\text{sweet}}) \wedge (\max\{d: \text{sweet}(d)(x)\} - \min(S_{\text{sweet}}) < d_c)$
d.



The figure in (11d) graphically represents the relations between the denotations of *nesladkij* 'not sweet', *sladkij* 'sweet', and *sladkovatyj*. We assume that the lower boundary on the scale of sweetness represents zero sweetness, i.e., corresponds to the absence of the property. In order for an object to fall under the denotation of *sladkij* 'sweet', it has to reach a particular degree of sweetness (see discussion in Section 4.) Finally, an object counts as *sladkovatyj* if the degree of its sweetness is higher than the minimal point on the scale, but not considerably higher than this point.

A further example that illustrates the application of *-ovat* to an adjective with a lower-bound closed scale is *grjaznyj* 'dirty'. The scale of dirtiness has a minimal value (corresponding to

zero dirtiness, or absolute cleanliness) but no maximal value (there is no limit to how dirty one can get). The suffix *-ovat* applies to the minimal value on the underlying scale of this adjective, so that the resulting adjective, *grijaznovatyj*, denotes the property of being slightly dirty, i.e., slightly dirtier than an absolutely clean entity.

(12) [[grijaznovatyj]] = λx . max{d: dirty(d)(x)} > min(S_{dirty}) $\wedge$ (max{d: dirty(d)(x)} – min(S_{dirty}) < d_c)

Several additional examples of adjectives that lexicalize a scale with a lower boundary and can be modified by the suffix *-ovat* are provided below:

(13) *vlažnovatyj* (wet-*ovat*) 'slightly wet', *gor'kovatyj* (bitter-*ovat*) 'slightly bitter', *solonovatyj* (salty-*ovat*) 'slightly salty', *ostrovatyj* (spicy-*ovat*) 'slightly spicy', *kislovatyj* (sour-*ovat*) 'slightly sour', *krivovatyj* (crooked-*ovat*) 'slightly crooked', *gnilovatyj* (rotten-*ovat*) 'slightly rotten', *strannovatyj* (strange-*ovat*) 'somewhat strange', *grustnovatyj* (sad-*ovat*) 'a little bit sad', etc.

3.2.2 Upper-Bound Closed Scales

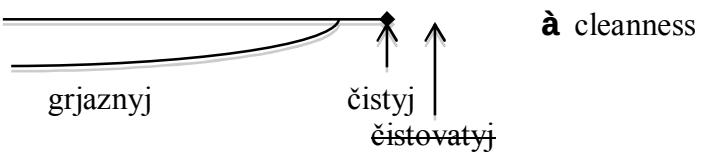
When a scale has a maximal value, its upper boundary constitutes another potential standard of comparison for the application of *-ovat*. However, it turns out that *-ovat* fails to apply to this standard. Recall that the suffix ensures that the property holds of an argument to a degree that is *higher* than the standard of comparison. Trivially, no degree can be higher than the maximal element on the scale.

An example of an adjective that lexicalizes an upper-bound closed scale is *čistyj* 'clean', which lacks a minimal value and whose maximal value corresponds to absolute cleanliness. This scale is almost identical to the one lexicalized by the antonymous adjective *grjaznyj* 'dirty' discussed in Section 3.2.1 above, except for the fact that the two scales are characterized by inverse ordering relations. Roughly, the higher an object is on the scale of cleanliness (i.e., the cleaner it is), the lower it is on the scale of dirtiness. We noted above that the scale of dirtiness has a minimal value but no maximal one. Correspondingly, the scale of cleanliness has a maximal but not a minimal value.

The adjective **čistovatyj* does not exist. Formally, the unacceptability of this form can be explained as follows. The application of the suffix *-ovat* to the adjective *čistyj* 'clean' and to the scale boundary (as the standard), would render the semantics in (14a):

(14) a. λx . max{d: clean(d)(x)} > max(S_{clean}) $\wedge$ (max{d: clean(d)(x)} – max(S_{clean}) < d_c)

b.



Since no degree on the scale of cleanliness can be higher than max(S_{clean}), the requirement max{d: clean(d)(x)} > max(S_{clean}) cannot be satisfied. Therefore, *-ovat* cannot be felicitously applied.

We now have an explanation of the contrast between the existing *grijaznovatyj* and the non-existing **čistovatyj*. The adjectives *grjaznyj* and *čistyj* are antonyms that lexicalize scales with

the same dimension. The scales come with one and the same standard (absolute cleanliness), which corresponds to the minimal value on S_{dirty} and the maximal value on S_{clean}. For both adjectives, this standard is a potential candidate for *-ovat* to apply to. Given the ordering that characterizes each scale, we get the following result. With *grjaznyj*, the application of the suffix produces the meaning 'slightly dirtier than the minimum', or 'slightly dirtier than an absolutely clean entity'. This is an acceptable interpretation, and the adjective *grjaznovatyj* exists. With *čistyj*, the resulting meaning would be 'slightly cleaner than the maximum', or 'slightly cleaner than an absolutely clean entity'. This interpretation is ruled out, and so the adjective **čistovatyj* does not exist.

Additional upper-bound closed adjectives that cannot combine with *-ovat* are provided below:

(15) **rovnovatyj* (straight-*ovat*)[4], **ploskovatyj* (flat-*ovat*)[5], **sveževatyj* (fresh-*ovat*)[6], etc.

It should be pointed out, however, that some upper-bound closed adjectives (such as e.g. *suxoj* 'dry') *can* combine with *-ovat*. We argue that this is possible because in such cases, the suffix applies to a different type of standard, namely, to the functional standard. This issue will be addressed in Section 3.3.2 below.

3.3 Gradable Adjectives: A Functional Standard

In Sections 2.1 and 2.2, we demonstrated that both relative gradable adjectives and absolute gradable adjectives have a standard of comparison other than the absolute and the distributional one respectively. This standard is not computed relative to the distribution in the class, nor does it constitute a (minimal or maximal) boundary on the underlying scale. Rather, it is determined relative to some contextually relevant goal or desire. In this section, we consider cases in which *-ovat* applies to the functional standard.

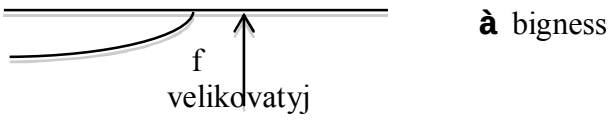
3.3.1 Open Scales

Relative adjectives lexicalize scales that lack both a minimal and a maximal value. Thus, no absolute standard is available. Still the suffix *-ovat* is compatible with adjectives of this kind. With such adjectives, *-ovat* applies to the functional standard. In particular, it specifies that the degree to which the property holds of an argument is slightly too high to be compatible with the requirements of the situation[7].

The adjective *velikovatyj* 'big/great-*ovat*' illustrates our point. This adjective lexicalizes an open scale and denotes a property of being *slightly too big* for the present purpose.

(16) a. $[[\text{velikovatyj}]] = \lambda x\ .\ \max\{d\text{: big}(d)(x)\} > C \wedge (\max\{d\text{: big}(d)(x)\} - C < d_c)$

b.



[4] Compare to the acceptable *krivovatyj* (crooked-*ovat*).
[5] The adjective exists under a different, idiomatic meaning.
[6] The intended meaning here is one of being a fresh product; presumably, under this meaning, the adjective lexicalizes an upper closed scale, as it is possible to say *Jeda absolutno svežaja* 'The food is absolutely fresh'.
[7] Interestingly, *-ovat* cannot apply to a distributional standard. This issue will be raised in Section 4.1.

For instance, this adjective can be used to describe shoes that are too big for a given individual, or a piece of furniture that is too big to fit in a particular room. At the same time, the argument of *velikovatyj* is only entailed to be *slightly* too big for the current purposes. Therefore, if this property characterizes the shoes that one is trying for size, this may not yet be a reason not to buy them: insoles or socks could solve the problem.

An analogous interpretation is available for the antonym of *velikovatyj* - *malovatyj* 'small-*ovat*'. It denotes the property of being slightly too *small* for some purpose, and is indeed often used to describe shoes or clothes that do not fit due to their (too small) size.

(17) $[[\text{malovatyj}]] = \lambda x \,.\, \max\{d: \text{small}(d)(x)\} > C \wedge (\max\{d: \text{small}(d)(x)\} - C < d_c)$

Along with *velikovatyj* and *malovatyj*, *-ovat* applies to the functional standard with numerous relative adjectives, including the following:

(18) *vysokovatyj* (tall-*ovat*) 'slightly too tall', *nizkovatyj* (short/low-*ovat*) 'slightly too short/low', *širokovatyj* (wide-*ovat*) 'slightly too wide', *uzkovatyj* (narrow-*ovat*) 'slightly too narrow', *dlinnovatyj* (long-*ovat*) 'slightly too long', *korotkovatyj* (short-*ovat*) 'slightly too short', *dorogovatyj* (expensive-*ovat*) 'a little bit too expensive', *prostovatyj* (simple-*ovat*) 'somewhat simple-minded', *starovatyj* (old-*ovat*) 'somewhat too old', etc.

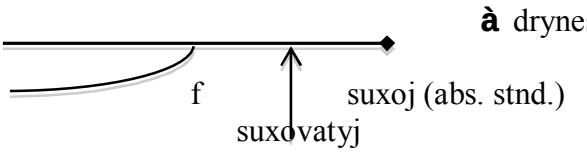
The negative connotation sometimes associated with *-ovat* comes from the cases when it applies to the functional standard. An excess and the resulting incompatibility with the requirements of the situation create the negative flavour.

3.3.2 (Partially) Closed Scales

The suffix *-ovat* can also apply to the functional standard with some adjectives that lexicalize scales with a boundary. For instance, the adjective *suxoj* 'dry' lexicalizes an upper-bound close scale (an entity can be absolutely dry, but not absolutely wet). *-ovat* cannot take the maximal value as the standard, for reasons discussed in Section 3.2.2. An object cannot be drier than absolutely dry. However, the suffix can attach to this adjective applying to the functional standard. The resulting adjective denotes a property of being *slightly too dry for the present purposes* (for instance, a duster may be too dry for an efficient cleaning). The adjective *suxovatyj* thus receives the semantics in (19)[8]:

(19) a. $[[\text{suxovatyj}]] = \lambda x \,.\, \max\{d: \text{dry}(d)(x)\} > C \wedge (\max\{d: \text{dry}(d)(x)\} - C < d_c)$

b.



Turning to adjectives that lexicalize a lower-bound scale, they, too, appear to allow the application of *-ovat* to the functional standard. For instance, it has been mentioned above that

[8] Of course, this raises the question of why such adjectives as **čistovatyj* do not exist. We have seen why the suffix cannot take the maximal value on the scale as the standard, but why can it not apply to a functional standard, triggering an entailment that the argument is too clean for some purpose? This issue is addressed in Section 3.3.3.

the adjective *ostrovatyj* (spicy-*ovat*) can mean 'slightly spicy'. However, it may also mean 'somewhat spicier than desirable in the given context', as illustrated in (20):

(20) Etot sup dlja menja neskol'ko ostrovat.
this soup for me somewhat spicy-*ovat*
'This soup is somewhat too spicy for me.'

We therefore propose that the adjective *ostrovatyj* is ambiguous between the following two readings, which differ in terms of the standard selected by the suffix:

(21) a. $[[\text{ostrovatyj}_1]] = \lambda x . \max\{d: \text{spicy}(d)(x)\} > \min(S_{\text{spicy}}) \wedge (\max\{d: \text{spicy}(d)(x)\} - \min(S_{\text{spicy}}) < d_c)$

b. $[[\text{ostrovatyj}_2]] = \lambda x . \max\{d: \text{spicy}(d)(x)\} > C \wedge (\max\{d: \text{spicy}(d)(x)\} - C < d_c)$

Under (21a), the adjective denotes the property of being just a little bit spicy. Objects that are included in its denotation do not lack the property of spiciness but have it to a low degree. In turn, (21b) represents the property of being slightly exceeding the functional standard for spiciness, i.e., being slightly more spicy than desirable in the given context.

(20) makes it possible to distinguish between the two readings of *ostrovatyj*, as it is compatible with the context in which the soup has the property (21b) but not (21a). Suppose that the soup is considerably spicy. The speaker likes spicy food, so the soup is only slightly too spicy for her; therefore, it is characterized by the property (21b). It is slightly spicier than desirable. At the same time, it does NOT have the property (21a). Since it is very spicy, it is not true that the degree of its spiciness is only slightly higher than the minimum. In other words, the condition $\max\{d: \text{spicy}(d)(x)\} - \min(S_{\text{spicy}}) < d_c$ is not satisfied.

3.3.3 Conventionalized Gaps: Adjectives with a Conventionally Positive Connotation

If *-ovat* can apply to the functional standard with absolute adjectives, as demonstrated in Section 3.3.2, why do the words **čistovatyj* (clean-*ovat*) or **rovnovatyj* (straight-*ovat*) not exist? Further, why do we get the asymmetry with such relative antonyms as the following: *ploxovatyj* (bad-*ovat*) - **xoroševatyj* (good-*ovat*), *slabovatyj* (weak-*ovat*) - **sil'novatyj* (strong-*ovat*), *glupovatyj* (stupid-*ovat*) - **umnovatyj* (clever-*ovat*)?

Note that in these pairs the stems consistently denote properties one of which is conventionally viewed as positive and the other one, as negative. That is, by default, it is good to be clever but not to be stupid, and being strong is judged to be preferable over being weak. Analogously, clean is better than dirty. Once such a conventional opposition is present, *-ovat* is typically compatible only with the member of the pair that carries a negative connotation. Apparently, with these pairs of adjectives, the attachment of the suffix and the resulting interpretation is governed not only by contextual but also by conventional considerations. It is conventionally determined for certain dimensions an excess in what direction is likely to be undesirable. Roughly, 'worse than desirable' is much more likely than 'better than desirable', 'weaker than desirable' is more likely than 'stronger than desirable', etc. Conventionally, by default, a high degree of cleanliness, cleverness, goodness, etc. is judged as a good thing, which makes these adjectives less easily compatible with the negative flavour of "a higher degree than desirable", which is contributed by *-ovat*.

Of course, in an appropriate context, it is possible to conceptualize of an individual being "too good", "too strong", and even "too clever". Therefore, the degree modifier *too* is perfectly

compatible with such adjectives. However, due to the fact that *-ovat* is a derivational morpheme, which combines with the stem in the course of word formation, it is more sensitive to lexical and conventional restrictions. Therefore, it does not easily apply to properties whose degree is unlikely to be higher than desirable. In contrast, *too*, which is an independent lexical item that combines with an adjective at a much higher level of the derivation, can override the conventionalized preferences of the stem in an appropriate context.

Interestingly, if a polysemous adjective is inherently likely to receive a negative connotation under only one of its sub-meanings, this sub-meaning will be compatible with *-ovat*. For instance, the adjective *prostovatyj* (simple-*ovat*) sounds strange when modifying a problem or a question. Here, we have the positive/negative contrast *prostovatyj/složnovatyj (simple-*ovat* /strong-*ovat*) of the kind discussed above. But the adjective *prostoj* may also be used to modify one's personality, in which case it receives the meaning 'simple-minded'. This sub-meaning inherently receives a negative connotation, and the word *prostovatyj* is perfectly acceptable if used in this sense[9].

4. Open Questions and Outlook

4.1 Distributional Standard

The distribution of the suffix *-ovat* is subject to a puzzling restriction: it cannot apply to a distributional standard. To illustrate, the adjective *vysokovatyj* (tall-*ovat*) means 'slightly taller than desirable', but not 'slightly taller than the distributional standard for tallness'. Under the latter option, the adjective would essentially denote a property of being tall but not very tall, a set of individuals who exceed the distributional standard for tallness but not considerably. This is *not* what *vysokovatyj* conveys, however.

The problem is not limited to the suffix *-ovat*, though. An analogous reading is not possible for degree modifiers that constitute separate words either:

(22) ?Vasja nemnogo vysokij.
Vasja slightly tall
'Vasja is slightly too tall.'
NOT 'Vasja is tall but not very tall.'

If (22) is accepted at all, the meaning of 'slightly too tall' is forced. Similarly to *-ovat*, *nemnogo* 'slightly' makes sure that the degree characterizing an argument slightly exceeds a certain standard. While this item may be forced to work with a functional standard, it cannot apply to a distributional one.

Rotstein & Winter (2004) discuss a related case of *almost*, which cannot modify relative adjectives, as demonstrated in (23a) for English (corresponding to (33) in Rotstein & Winter 2004) and in (23b) for Russian:

(23) a. #John is almost tall.
#John is almost short.
b. #Vasja počti vysokij.
#Vasja počti nizkij.

[9] Similarly, *mjagkij* 'gentle' used with respect to people generally has a positive connotation. By contrast, *mjagkovatyj* (gentle-*ovat*) refers to someone who is too gentle, getting spineless.

A possible explanation for the fact that various modifiers cannot apply to the distributional standard of relative adjectives is *vagueness* of this standard value[10] (this is the line of reasoning advocated by Rotstein & Winter 2004 as well). The distributional standard is vague, and its precise value is very difficult, often even impossible to determine. What is the precise point at which a person stops being non-tall and becomes tall? What is the precise intellectual level that constitutes the boundary between clever and non-clever persons? Determining such a precise value is problematic; further, speakers often disagree with each other as to where on a scale the standard is to be located. Because the standard is so vague, it is problematic to measure the distance between such a standard and another degree on the scale.

By contrast, the functional standard is normally associated with a fixed value required for the relevant purpose, as already discussed in Section 2.2. This value may not be explicitly provided, but it is at least potentially recoverable from the context. For instance, it is possible to determine the maximal degree of highness that may characterize a piece of furniture that fits in a particular door (so that any object that is higher than this degree will not go through). Although a certain degree of vagueness characterizes functional standards as well, it is much lower than in the case of distributional standards. Therefore, *-ovat* (as well as *nemnogo* 'slightly' and *počti* 'almost') can successfully apply to the functional standard.

4.2 Lower-Bound Closed Scales and the Standard

Adjectives that lexicalize lower-bound closed scales (such as *dirty*) are expected to be minimum standard adjectives (cf. Kennedy and McNally 2005). For instance, a sentence of the form *x is dirty* is expected to be true as soon as *x* is characterized by a minimal non-zero degree of dirtiness. In other words, these adjectives require their arguments to possess at least some minimal degree of the relevant property in order to be truly applied to them.

Facts about the application of *-ovat* to lower-bound closed adjectives challenge this approach. It appears that statements of the form **x is A-ovatyj but x is not A** are possible and occur in the corpus, cf. (24). *x is A-ovatyj* entails that the degree to which *x* is characterized by the gradable property is higher than the lower boundary of the scale. The fact that such a statement need not entail that *x is A* suggests that in order for the latter statement to be true, possessing the property to a higher degree is required.

(24) a. Vkus polučaetsja pikantno-**sladkovatyj** (no **ne sladkij**), mne očen' nravitsja.
'The taste gets piquantly sweet-*ovat* (but not sweet), I like it a lot.'
(http://www.povarenok.ru/recipes/show/13098/)

b. On **ne gor'kij**, on **gor'kovatyj**…
'It is not bitter, it is bitter-*ovat*…'
(http://club.passion.ru/viewtopic.php?p=8118452&sid=)

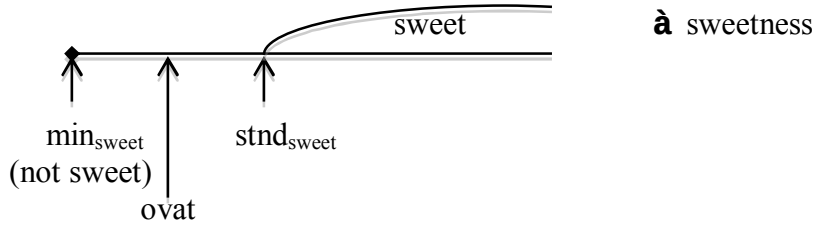
c. Mne ne nravitsja cvet mezdry, cvet kakoj-to grjaznovatyj, **ne grjaznyj**, a imenno **grjaznovatyj**.
'I don't like the colour of hide, the colour is somehow dirty-*ovat*, not dirty, but precisely dirty-*ovat*.'
(http://www.mexaimoda.ru/ru/search/index.php?PAGEN_1=14&q=blackglama

d. Otnositel'no čistyj vozdux označaet **ne grjaznyj**, a vsego liš **grjaznovatyj**.
'Relatively clean air means not dirty, but only dirty-*ovat*.'
(http://www.newsland.ru/News/Detail/id/534842/cat/42/)

[10] We are indebted here to comments by Stephanie Solt.

These data suggest that, contra Kennedy and McNally (2005), there is a gap between the absolute zero on the scale and the value where the denotation of the lower-bound adjective in its positive form starts. Consequently, this implies that also absolute gradable adjectives may require some sort of "standing out" with respect to the standard, in a similar way as relative gradable adjectives do. In this case, the structure of the scale for, e.g., sweetness would look as follows:

(25)



Such scale structure, in which the minimal value and the standard are dissociated, comes close to what is proposed by Rotstein & Winter (2004)[11]. Rotstein and Winter assume that there may indeed be a gap between the minimal degree on the relevant scale and the minimal degree to which the property must hold of an object in order for the adjective to be felicitously applied to it.

5. Conclusion

To sum up, in this paper, we have investigated the semantics of the adjectival suffix *-ovat* in Russian. We argued that this suffix constitutes a morphological degree modifier and proposed for it a formal analysis formulated within the framework of degree semantics. The suffix specifies that the degree to which a property holds of an object is slightly higher than the standard of comparison. A detailed consideration of different types of adjectives and standards of comparison available for these adjectives, in combination with the proposed analysis, allows us to account for the distribution of the suffix and for the range of arising interpretations.

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