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Standard-shifting in the adjectival domain: Corpus evidence and discussion

It has been widely acknowledged (cf. Rotstein and Winter 2004, Kennedy and McNally 2005, Kennedy 2007 among others) that gradable adjectives divide into three types: partials (e.g., *wet*), totals (e.g., *dry*) and relatives (e.g., *long – short*). For a gradable adjective G to be considered as partial, it is sufficient to exceed the minimal standard on a scale s of a denoted attribute (formally, G is partial iff $s(G) > min(G)$). For example, the adjective *wet* is partial since its degrees exceed the minimal standard on a scale of humidity. For an adjective to be considered as total, it is necessary to be equal to the maximal standard on a scale s of a denoted attribute (formally, G is total iff $s(G) = max(G)$). To illustrate, the adjective *dry* is total as its degree is equal to the maximal standard on the scale of dryness. Finally, an adjective is relative iff its standard is contextually determined (formally, G is relative iff $s(G) > norm_C$ or $s(G) < norm_C$, where C is a context). For instance, the adjective *long* exceeds a contextual standard, whereas the adjective *short* is under it.

According to the scale theory (cf. Kennedy and McNally 2005, Kennedy 2007), if a scale has an endpoint, it functions as a standard. Scale minima and maxima can be detected by virtue of maximizers and minimizers combined with gradable adjectives. Totals are compatible with maximizers like *absolutely* and *perfectly* (cf. *absolutely dry, perfectly dry*) but not with minimizers like *slightly* (cf. [??]*slightly dry*), whereas partials are felicitous in combinations with minimizers (cf. *slightly wet*) but not with maximizers (cf. [??]*absolutely wet,* [??]*perfectly wet*) and, in contrast, relatives do not occur in combinations either with maximizers or minimizers ([??]*absolutely long,* [??]*perfectly long,* [??]*slightly long*, the same goes for *short*). Last but not least, totals *full – empty* are felicitous in combinations with both maximizers and minimizers since they both have scale maxima and minima (*absolutely full, perfectly full, slightly full*, the same goes for *empty*).

Intuitively plausible as it may be, the adequate application of this classification to the English data has been questioned by Sassoon (2011). She presents experimental and corpus data and argues for that *slightly* preferably combines with partials rather than with totals or relatives. In particular, it means that the combinations *slightly full* and *slightly empty* rarely occur. Moreover, the cross-linguistic validity of the adjectives classification has been challenged by Tribushinina (2009a, 2009b, 2011). Following Apresjan (1974) and providing data from the National Corpus of the Russian language, she convincingly shows that in Russian the maximizer *sovsem* 'entirely' felicitously combines with sub relatives like *korotkij* 'short' but not with supra relatives like *vysokij* 'tall' (cf. *sovsem korotkij* vs. [??]*sovsem vysokij*)[1]. Furthermore, investigating two Russian relatives *korotkij* and *vysokij* in comparison with their English counterparts *short* and *tall*, Tribushinina (2009a) demonstrates that minimizers like *nemnogo* 'a little', being infelicitous with the positive forms of the relatives, are compatible with their comparative forms (cf. *nemnogo koroče* 'slightly shorter' vs. [??]*nemnogo korotkij* 'slightly short'), which is not predicted by Kennedy and McNally's theory.

There are many questions left unanswered. Do modified gradable adjectives of the same semantic type behave uniformly? Do maximizers *absoljutno* 'absolutely', *soveršenno* 'perfectly' never occur in combinations with relatives and partials? Do boosters *gorazdo* 'far' and *značitel'no* 'significantly' and minimizers *nemnogo* 'a little' and *slegka* 'slightly' occur with comparative forms of all three adjectival types or only of relatives? What is the main underlying reason for such effects?

In order to answer these questions, I investigated 4 antonymous pairs of totals and partials (*čistyj* 'clean' – *grjaznyj* 'dirty', *zdorovyj* 'healthy' – *bol'noj* 'sick', *bezopasnyj* 'safe' – *opasnyj* 'dangerous', *suxoj* ' ' – *mokryj* 'wet'), 1 antonymous pair of totals (*polnyj* 'full' – *pustoj* 'empty') and 5 antonymous pairs of relatives (*korotkij* 'short' – *dlinnyj* 'long', *tjomnyj* 'dark' – *svetlyj* 'light', *bystryj* 'quick' – *medlennyj* 'slow', *sil'nyj* 'strong' – *slabyj* 'weak', *tixij* 'low' – *gromkij* 'loud') in combinations with maximizers *absoljutno*, *soveršenno*, *sovsem*, boosters *gorazdo*, *značitel'no* or minimizers *nemnogo*, *slegka*. I collected the data from the National Corpus of the Russian Language.

Relying on the general theory of gradable adjectives as well as on Tribushinina (2009a, 2009b, 2011), I propose the following hypotheses: (i) *absoljutno* 'absolutely', *soveršenno* 'perfectly' combines with positive forms of totals but not with positive forms of partials and relatives; (ii) *sovsem* 'entirely' occurs with positive forms of all the three types; (iii) *gorazdo* 'far', *značitel'no* 'significantly', *nemnogo* 'a little', *slegka* 'slightly' felicitously combines with comparative (but not with positive) forms of relatives and are infelicitous with comparative or positive forms of totals and partials.

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[1] Tribushinina (2009, 2011b) also presents evidence for that maximizers are felicitous in combinations with relatives in other Slavic languages as well as in French, Greek and Hungarian.

I calculated the following proportions of frequencies: (given adverb + given adjective) / (any adverb + given adjective). I did this in order to count relative frequencies of adverbs + adjectives combinations. In this formula, I ruled out all the instances of adverbs under negation.

The results of the study show variation within same and among different adjectival types. The hypothesis (i) was not confirmed since partials (e.g., *mokryj* 'wet') and relatives (e.g., *tixij* 'low') felicitously combine with *soveršenno* (0.91 and 0.27 respectively), though are very rare with *absoljutno* (0.004 and 0.006 respectively). Presumably, this occurs due to different semantics of the maximizers, but this is not predicted by Kennedy and McNally's theory. Furthermore, not all totals behave uniformly (e.g., the relative frequency of *absoljutno+zdorovyj* was almost twice higher than the relative frequency of *absoljutno+čistyj*, 0.42 and 0.23 respectively; whereas the frequency of *absoljutno+polnyj* was 11.5 times lower than the relative frequency of *absoljutno+čistyj*, 0.23 and 0.002 respectively).

In contrast, the hypothesis (ii) was approved, however, we cannot recognize a well-formed distribution among adjectives of each type (cf. the relative frequency of *sovsem+mokryj* 'entirely wet' was twice higher than the relative frequency of *sovsem+zdorovyj* 'entirely healthy' and *sovsem+tixij* 'entirely low'; 0.064, 0.03 and 0.032 respectively[2]).

The hypothesis (iii) was rejected since, first, *slegka* very rarely occurs both with comparative and positive forms of any adjectival type. To illustrate, the biggest relative frequency was the one of *nemnogo+polnyj* 'slightly full', which is 0.002. Second, *gorazdo* 'far' is used both with totals and partials (e.g., *gorazdo čišče* 'far cleaner', *gorazdo grjaznee* 'far dirtier', 0.3 and 0.29 respectively), though *značitel'no* 'significantly' and *nemnogo* 'a little' combine with totals but do not occur at least with some partials (e.g., *nemnogo čišče*, *nemnogo opasnee*, [??]*nemnogo grjaznee*, 0.028, 0.018 and 0.00 respectively).

The explanation for the between-class and within-class variation of adjectives might be the following. I assume that the reason for the between-class variation of adjectives is standard-shifting that takes place in all the three adjectival domains: totals, partials and relatives. For instance, when we say *soveršenno grjaznyj* 'perfectly dirty' we think of the adjective *grjaznyj* 'dirty' as total (and, therefore, having a maximum degree of dirtiness) rather than partial. On the other hand, when we say *gorazdo čišče* 'far cleaner' we do not think of the adjective *čistyj* 'clean' as total. Tribushinina (2009a) shows that comparative forms of relatives lack the norm (that is a contextual standard typical of relatives). I argue that the same happens with totals and partials that lack minimal or maximal standards and, in this respect, resemble relatives.

The reason for the within-class variation of adjectives is due to semantics of nouns that adjectives modify. To illustrate, the adjective *polnyj* can occur not only in combinations with volumes like glasses or bottles but also with persons (*polnyj rebjonok* 'fat child'). In the latter meaning, it is not total.

The general theoretical question that we might ask is whether we have a right not to consider infrequent combinations found in the Corpus (and on the web as well). Should formal semantics account for them? Should it incorporate lexical meanings of adjectives? And how to account for unpredicted but frequent combinations that, as I propose, is standard-shifting? If this is the case, then we have to assume that adjectives are not associated with a given standard − minimal, maximal or contextual. Should they then be under-specified in the mental lexicon and be contextually saturated (in particular with the help of nouns they combine with)? Or maybe assuming under-specification and regarding frequencies, we need to define probability distribution on the types of adjectives in the lexicon?

References

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[2] Note that these adjectives belong to the three established classes: partials, totals and relatives respectively.