Ekaterina V. Rakhilina

LINGUISTIC CONSTRUAL OF COLORS: THE CASE OF RUSSIAN

Introduction

Usually, research on colors undertaken by linguists appeal to a kind of experimental work which establishes a correlation between particular color terms or mental concepts of colors and some standard arrays of color stimuli. Accordingly, a native speaker is asked whether a given word can be used for referring to one or another hue, and the evidence from many native speakers allows the researcher to isolate "the focal hue" as well as the limits for the linguistic use of the color term in question.

This methodology has been used – with some specific variations which will not concern us now – in the work by Berlin and Kay (1969), Frumkina (1984) and Frumkina & Mikheev 1996, Vasilevič (1987 and 2003), MacLaury (1997), and many others.

The present study approaches semantics of colors in another way. The main object of our investigation is the linguistic *combinability* of color adjectives with regard to nouns of "colored" objects – as it is represented in attributive constructions found in the examples taken from corpora or elicited from native speakers.

This "syntactically based" view on the semantics of color can, as we believe, considerably develop and modify currently available theories of color terms meaning. Indeed, our research methodology has its theoretical foundations primarily in Anna Wierzbicka's cognitive hypothesis which treats colors not as abstract entities, but as related to some culturally salient objects of the physical world reifying a given color. The "reification hypothesis" seems to us very insightful, and it meets additional support in the argument related to language acquirement. For a child, possible and impossible linguistic combinations with the names of important objects in the world around us (rather than the tables of color samples) are the most likely source of information about the semantics of colors. Wierzbicka's work, however, does not provide any mechanism or establishing these correlations between a color and a physical object; nor does it discuss in great detail the methodology of studying languages belonging to various types.

Our study can thus be viewed as a possible method which can complete a theory like that of Wierzbicka – though, as it will be demonstrated below, some results of our linguistic experiments do not fit very well in Wierzbicka's original scheme.

On the other hand, the present study can be of interest independently on the initial theoretical framework. This is related to the fact that, despite a long history of investigation (especially as compared to other semantic fields, like, for example, temperature parameters, which remain practically unexplored up to date), color terms are fraught with unsettled questions. To our opinion, these questions belong primarily to the significative domain rather than to the denotative one. We know that languages have a system of basic colors and that historical development of languages results in an increasing number of the basic colors (cf. Berlin & Kay 1969, Kay & Maffi 2000, etc.). What we do not know are the exact stages of this process – i.e., how does the given word enter or leave the basic group and how does the *linguistic* system of color terms evolve. It has been stated that different hues of one and the same color may coexist in a language as a dominant and a recessive varieties (see MacLaury 1997), but the rules determining their coexistence and interplay remain largely unexplored.

In our opinion, the combinability of color terms with the names of objects can serve as the mirror which will capture a complex linguistic dynamics and thus help us to answer some of the questions above.

Attributive and predicative constructions

Before we proceed to examining the data, we would like to specify what kind of adjectival constructions will be chosen for our analysis and what are the reasons of our choice.

The point is that the color adjectives, generally speaking, can be used in two different types of constructions, usually referred to as attributive and predicative. The difference between them is syntactical (in Russian partly also morphological, since Russian adjectives have a set of the so-called short forms, which occur only in the predicative position). The most important fact, however, is that the difference between the two constructions is rooted in their semantics. D. Bolinger seems to be the first to raise this issue: the analysis of pre- and postpositional uses of English adjectives in Bolinger 1967 has shown that preposed (attributive) adjectives tend to denote permanent properties, while postposed (predicative) adjectives are mostly related to temporary properties. In addition, the nouns in attributive constructions are semantically modified by the adjectives (the adjective changes some predetermined meaning inherent to the noun), while the adjectives in predicative constructions ascribe a noun some completely new characteristic. It has also been stated that different semantic groups of English adjectives tend towards the attributive or the predicative construction. For example, in English only *the main reason* is grammatical, unlike *the reason is main*; on the contrary, *the man is ready* is opposed to *the ready man*. Quirk et al 1972: 263 point out that English adjectives tending towards the predicative position (such as *well, faint, ill*) are semantically closer to verbs or adverbs (in particular, in what concerns time relations), because they rather denote temporal characteristics than permanent ones. On the other hand, typical perfect participles with attributive uses only are most likely to denote (visible) traces left somewhere, which is a kind of a permanent characteristic, cf. *a bruised cheek* vs. *a scratched head*, *labeled goods* vs. *sent goods* (see Bolinger 1967; cf. also Bhat 1994).

Thus, attributive and predicative constructions are opposed semantically. If we summarize all the particular differences which have been observed, we can state that attributive constructions presuppose a semantic agreement between adjective and noun, while predicative constructions impose some external incidental characteristic to noun. Given that, there is a need not only to distinguish these two constructions when describing adjectives, but also to decide which one has priority over the other. Bolinger, as well as many other linguists (Dik 1989 among them) have given priority to the attributive construction. The basic status of the attributive construction is advocated in Bhat 1994: 104 ff. on a wide typological data. Bhat, in particular, demonstrates that adjectives in the predicative position tend to lose their individual properties, which oppose them, among other, to verbs.

All this leads us to the exclusion of predicative contexts in favor of attributive ones. We are concerned not with adjectives as such, but with the properties of names of objects revealed with the help of adjectives. This semantic effect is possible, however, only in the case of noun-dominated adjectives agreeing with the nouns semantically. It is this type of constructions that provides numerous non-trivial combinatorial restrictions, which can further be used as a powerful tool for semantic description of both adjectives and nouns. Predicative contexts turn out to be, in the majority of cases, much less restrictive in what con-

cerns their combinability and thus much less promising from the point of view of semantic analysis.

Combinatorial restrictions

Let us take for granted that each physical object has a color (or colors) in the real world. In principle, these colors always can be rendered by linguistic means (if such a description is aimed at), in one way or another, albeit perhaps somewhat clumsily and vaguely in some cases (cf. sentences like *it was half-blue and half-brown, with small red spots throughout and pale stains*). In this (and only in this) sense, one can speak about the free procedure of ascribing colors and absence of any combinatorial restrictions. If, however, we mean *linguistic* units – such as *names* of objects and *names* of colors – and if these units are put in the attributive construction (according to what has been said below), the whole picture changes considerably. Recall that the attributive construction reveals the semantic characteristics of the object name which are built in its semantics structure. Color is one of such characteristics; that is why an $Adj_{COL} + N$ construction is possible only when it is somehow "supported" by the semantics of the noun N, i.e. when there is a kind of semantic agreement between the color adjective Adj_{COL} and N. At the same time, the semantic structure of N may include some strictly determined concepts concerning the color of its referent, yielding numerous (as it will be shown later) contextual restrictions on the adjectival use.

It should be noted, first of all, that not any noun N is possible (or, at least, very natural) in the construction of the Adj_{COL} N type, witness nouns such as *skripka* 'fiddle', *šljuz* 'sluice', *rubl'* 'rouble', *ulitka* 'snail' etc. It should be stressed, once more, that the corresponding extralinguistic objects always have a certain color and this color can be described, though not by means of an attributive construction.

We have now to establish the conditions when the parameter of color is relevant for an object. Generally speaking, the attributive construction enables color in order to distinguish the object under consideration form other similar objects. This "distinctive" function of color is especially prominent in the cases when the objects are available (concentrated) in large quantities, and their color may thereby serve as an additional distinctive feature and become linguistically relevant. Cf. such regular combinations as *zelënoe plat'e* 'green dress', *žëltaja stena* 'yellow wall', *krasnoe pjatno* 'red spot', and the like.

Obviously, for the nouns which denote objects with a *fixed color* (such as *coal*, *blood*, *lime*) the feature of color is not distinctive and generally not relevant in the attributive construction. It means that a plausible interpretation of the phrases like [?]*čërnyj ugol'* 'black coal' or [?]*belaja izvest'* 'white lime' requires a strong pragmatic context, which could establish relevance of the fixed color. Such context may, for example, expressly oppose this color to a color of another object, as in: *Čërnyj kot, ves' v **beloj izvesti** – èto, ja vam skažu, zrelišče!* 'A black cat, all covered with *white lime* – that's a jolly spectacle, I say!'

From the lexicographic point of view, the fixed color is a permanent property, inherent, first of all, to the lexemes which describe natural objects. It should be noted, however, that in the domain of the artifacts, color is not always distinctive either. The main problem is that the linguistic group of artifacts includes quite a few names of, so to say, "achromatic" objects, as *gvozd'* 'nail', *molotok* 'hammer', *mina* '(mining) mine', *rel's* 'rail', *vilka* 'fork', etc. In a sense, these, too, are objects with the fixed color (viz., that of metal), but its communicative salience is low to an extent than, in Russian, it is even not lexicalized: there is no specific color term for this type of color. As can be seen, the fixed color occurs much more commonly than one might expect, and this fact restricts considerably the use of $Adj_{col} + N$ constructions.

It should be stressed that what we call "relevant feature" is established in the case of fixed-color adjectives and in the case of other qualitative adjectives basically according to the same principles. Indeed, objects with the fixed color are distinguished for the fact that they do not change this feature during all their life: the speakers of Russian attach no significance to their color, because it is always invariable. Similarly, when we say *Naden' čistuju rubašku!* 'Put on a clean shirt' or *Posteli čistuju skatert'!* 'Lay a clean cloth', we mean that there is an opposition between clean shirts or cloths and dirty ones, and that one and the same shirt or cloth can be in its life both clean and dirty. The sentences like [??]*Naden' čistuju šubu / galstuk!* 'Put on a clean sheepskin / cravat' sounds much more problematic. This paradoxical asymmetry is accounted for by the fact that, from the linguistic point of view, the objects like coats and ties have a constant, fixed value of the feature 'clean', and hence this feature is simply irrelevant for them, just as in the case of fixed colors above.

Free and conventional colors

As already noted, the freest behavior with regard to the color spectrum is characteristic of the artifacts: the color of clothes, furniture, buildings, utensils and similar objects around us varies practically without limits – and usually corresponds to the color of the paint or dye the object was processed with. As for the restrictions on the use of color adjectives, they are normally associated with the cases when an adjective acquires a specifying function, and what we deal with is actually a phraseological unit rather than a free combination. Thus, *čërnyj xleb* 'black bread' and *belyj xleb* 'white bread' obviously denote two different sorts of victuals (rye-bread and wheat bread, respectively) and not two representatives of one sort opposed by their color. The same is true for the collocations like *white skin, red wine, white flag, red cross*, and so on. It is worth noting than in many such collocations the color is chosen in a large measure conventionally: for example, white wine is known to be rather limpid (like water), than really white.

On the other hand, it is obvious that many intermediate cases exist.

Let us consider Russian names of animals combined with the color adjectives. Two groups of such combinations can be clearly isolated. One of them consists of fixed collocations (often with a "folklore" tinge) like *ryžaja lisa* 'red fox', *čërnyj voron* 'black raven', *buryj medved'* 'brown bear', *seryj / buryj volk* 'grey / brown wolf', *zelënaja ljaguška* 'green frog', *rozovyj porosënok* 'pink piglet'. These collocations are nearly identical to phraseological units: they are completely fixed and do not undergo any variation. Although nothing prevents, for example, a real living fox (unlike its fairy-tale counterpart) from having different colors – the term *ryžij* 'red' will apply to foxes invariably by the speakers of Russian. Of course, the choice of a definite color adjective in this group is still motivated, but the semantic conditions may be very subtle and complicated.

On the other hand, a large number (as a matter of fact, the overwhelming majority) of attested names of animals can in no way participate in attributive constructions with color adjectives, as if these animals do not have any color form the point of view of Russian. Thus, attributive constructions cannot be used for referring to the color of deer, elk, kangaroo, ostrich, badger, sable, nightingale, hippopotamus etc. Many of these animals are quite familiar to us and we can easily imagine and describe their natural color, if needed – though not within attributive construction. All these nouns behave in accordance with the restrictions formulated above: they denote objects of a fixed color, irrelevant from the linguistic point of view, so that attributive construction cannot be called for. It means that the names of animals enlarge considerably the domain of linguistically "colorless" objects.

Against this background, phrases like *čërnyj voron* 'black raven' or *zelënaja ljaguška* 'green frog' appear to be exceptions, since, for example, ravens cannot be other than black; for a possible explanation (related to some general semantic properties of color terms) see below.

For all that, a small group of names of animals does exhibit variant color, which therefore can be expressed within attributive construction, cf. phrases such as *belyj* / *čërnyj* / *ryžij kot* or *pës* 'white / black / red cat' or 'dog'. The problem is, however, that *kot* 'cat' allows also the adjective *seryj* 'grey' to be included in this list, whereas the combinations [?]*seryj pës* or [?]*seraja sobaka* 'grey dog' seem to us much more problematic – despite the fact that canine species of grey color occur in nature; cf. also a possible *seren'kij kozlik* '(little) grey kid' vs. a highly problematic [?]*seraja korova* 'grey cow'. Thus we can see that the variation of color is in these examples not as free as one might expect. In addition, the choice of color is likely to approach the conventional pattern. For example, mice can be both *grey* and *white* in Russian. But *grey mice* (*serye myši*) are not exactly *grey* – their color is actually much deeper: cf. a special expression *myšinyj cvet*, lit. 'mouse color' (≈ 'dun, mousy color') for this more complex hue. The statements like *Na nej bylo seroe pal'to* 'She had a grey coat' and *Na nej bylo pal'to myšinogo cveta* 'She had a mousy coat' differs not only in their connotations, but also in the actual color of the clothing. In principle, the problem of hues can be solved by linguistic means: it is well known that Russian disposes of special terms for hair colors (for example, rather *pepel'nyj* 'ashen' than *seryj* 'grey'), horse colors (for example, a black horse is called rather *voronoj* than *čërnyj*), etc. However, in language even non-grey mice prove to be grey, while grey dogs are denied any color at all. The linguistic image of the world (seen through the prism of attributive constructions) looks in this particular area as follows: there exist prototypical colors of prototypical animals, but no immediate relation to the real world can be observed – our concepts of these animals are conventional (and therefore are part of the semantics structure of these lexemes) and do not reflect directly the real state of affairs.

It should be noted that the domain of *conventional colors* is heavily restricted as compared to the common color spectrum: the colors which can function as conventional are most often *belyj* 'white', *čërnyj* 'black', *ryžij* and *krasnyj* 'red', *zelënyj* 'green'; more seldom are *sinij* and *goluboj* 'blue'; such colors as *fioletovyj* 'violet', *oranževyj* 'orange', *koričnevyj* 'brown' are never used in this role. This fact can be explained both by a later inclusion of the last group into the Russian lexicon (at least the first two terms are not attested before XVII century, according to the most authoritative historical study Baxilina 1975) and by the internal structure of these adjectives (which are semantically and formally derived). Interestingly, conventional colors are found only among the basic color terms. In addition, they show a strong relation both to cultural stereotypes[1] and to natural objects.

Usually, it takes a color a long time to become conventional. "New" colors have to enter the linguistic system gradually, penetrating first into the domain of natural objects,

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[1] Important cultural background of Russian *goluboj* (going back to the iconographic tradition) is argued in Paramei 1999 and Paramei in print. Of course, Russian is not unique in this respect. Thus, the paper Mixajlova 1994, concerned with the semantics of color terms in Irish, advances a very interesting hypothesis that different cultures elaborate on different parts of the color spectrum: Irish culture, in particular, tends to work out in detail the red part of the spectrum, while many Turkic and Finno-Ugrian systems are especially rich in the blue part, etc. If it is true, then both Berlin-Kay's universals and Wierzbicka's system of universal prototypes must be revised and modified in what concerns the cultural stereotypes proper to each linguistic system (cf. also some observations in Özgen & Davies 1998).

and only then gaining access to conventional patterns of use. We shall trace the details of this process taking *koričnevyj* 'brown' as the example.

Koričnevyj 'brown'

In present-day Russian, *koričnevyj* is still not a natural color. This is primarily a color of the paint applied to man-made artifacts. Therefore, *koričnevyj* is not use for referring to cows, cats, bears (although, from the physical point of view, all they, of course, can be of some brown-like color). The following combinations sound highly problematically, too: *?koričnevaja zemlja / palka* 'brown land / stick', *?koričnevyj stvol dereva* 'brown trunk of tree', while their artifact-describing counterparts are quite acceptable: *koričnevaja kraska / kryša / židkost'* 'brown paint / roof / liquid', *koričnevye šnurki / botinki* 'brown laces / shoes'. Natural objects of a brown color are described with the help of the adjectives *buryj* 'brown, fulvous', *tëmnyj* 'dark', *čërnyj* 'black' or *ryžij* 'red, sorrel' – depending on the exact tinge, cf.: *buraja zemlja* 'brown land', *buryj medved'* 'brown bear', *ryžij kot* 'red cat', *tëmnye stvoly derev'ev* 'dark trunks of the trees'. On the other hand, the adjective *buryj* is used only for natural colors from the brown spectrum and is practically not at all applied to artifacts; similar behavior is characteristic of *ryžij*, cf. **my kupili buroe pianino* 'we have bought a brown piano', **segodnja ja, požaluj, nadenu burye botinki* 'maybe, today I'll put on the brown shoes', as well as **ryžij dom* 'red house', *?ryžaja čaška* 'red cup', **daj mne ryžuju knigu* 'give me the red book', etc. The same is true for the adjective *pegij* 'piebald, skewbald': in this case, it is corroborated by its lexicographic treatment in the Academy Dictionary of Russian in 4 volumes, which, contrary to previous examples, explicitly states that *pegij* is used only for denoting animals' colors. Notice, however, that its broader synonym *pjatnistyj* 'spotted, dappled' (which does not have any special label in the Academy Dictionary) seems also be restricted to natural colors (or to their imitations as the only possible extension). Cf. *pjatnistaja škura* 'spotted fell', *pjatnistye stvoly derev'ev* 'spotted trunks of trees', *soldaty odety v pjatnistuju formu* 'the soldiers are in a spotted uniform', as opposed to **pjatnistyj serviz* 'spotted (dinner) service', *?pjatnistyj divan / plašč* 'spotted sofa / raincoat'. In the last cases, one have to say something like *v gorošek* 'polka-dotted' or *s razvodami* 'with free designs', which, in turn, are not applicable to natural objects (thus, **leopard v gorošek* 'polka-dotted leopard' sounds ridiculously, because it makes one think about an inanimate sofa rather than about a living beast of prey).

Most probably, the adjectives *bagrovyj* 'crimson, purple' and *lazurnyj* 'azure' (according to Vasilevič 2003, their use is being gradually shrinking in Modern Russian) belong to the same class of "nature-oriented" color terms. Cf. *bagrovoe lico / nebo* 'purple face / sky', *bagrovyj nos / sinjak* 'purple nose / bruise', as opposed to *??bagrovye oboi / steny / mašiny / knigi* 'purple wallpaper / walls / cars / books'; similarly, *lazurnoe more / nebo* 'azure sea / sky' are opposed to **lazurnyj karandaš* 'azure pencil' and the like.

Obviously, "artificial" colors like *koričnevyj* do not have a proper basis for the semantic description of the corresponding color term, because they do not have matching natural objects with an easily identifiable color. On the contrary, "natural" colors like *buryj* or *ryžij* must be readily analyzable in this way. It is true, however, that in Modern Russian the last two adjectives are very infrequent. Corbett 1989 (cf. also Corbett & Davies 1995) describes a psycholinguistic experiment which allows a student to rank Russian names of colors depending on how rapidly and naturally they are remembered by native speakers. *Buryj*, for examples, occupies only the position 108 on this scale (for comparison, *tëmno-koričnevyj* 'deep brown' is assigned the position 31, *svetlo-koričnevyj* 'light brown', the

position 70, and *bledno-koričnevyj* 'brown-pale', the position 85). It means, among other things, that, though *buryj* refers to a natural color, its combinability has been narrowed to the extent that getting any reliable semantic results is now problematic.

Most probably, this peculiar lexical correlation in the Russian domain of brown betrays an ongoing change in this part of the spectrum: *buryj* and *ryžij* are gradually getting out of use, giving way to another term; the vacant position is likely to be occupied in the near future by *koričnevyj*. An indirect evidence of the expansion of *koričnevyj* can be a high frequency of its derivatives: indeed, similar derivatives of *buryj* and *ryžij*, albeit possible, are very rare (thus, *tëmno-buryj* 'deep brown' and *tëmno-ryžij* 'deep-red, auburn' are attested, but ?*bledno-buryj* 'brown-pale', ?*bledno-ryžij* 'red-pale', ?*svetlo-buryj* 'light brown' and ?*svetlo ryžij* 'light red' are all hardly acceptable). Corbett & Morgan 1988 (see also Corbett 1989), following Dixon 1982, suggest that morphological derivatives is an additional criterion for distinguishing basic color terms. Accordingly, Russian *koričnevyj* is recognized as a basic term (in Berlin & Kay 1969's sense). We think, however, that this decision is somewhat premature. If one takes into account the semantic aspect, it turns out that the conceptual domain corresponding, for example, to English *brown* is not occupied by Russian *koričnevyj* entirely.

The data from a contemporary Russian corpora show a slow ongoing expansion of *koričnevyj* into the domain of natural objects (such as clay, sunburned and senile skin, faded grass or leaves, etc.). Available examples from the Bank of Russian National Corpus, where *koričnevyj* is used to describe natural brown, belong mostly to writers tending towards vernacular or colloquial style, cf.:

Ja razvernula bumažku, v nej byli zavërnuty dva **koričnevyx** *oreška* (Vas. Belov) 'I unfolded the paper, there were two *brown* nuts inside';

Ruki ležali na kolenjax – **koričnevye**, *suxie, v užasnyx morščinax* (Vas. Šukšin) 'His hands rested on his lap, *brown*, dry, with awful wrinkles';

Tëmnye **koričnevye** *stvoly okružajut vas v ètom lesu* (Vl. Solouxin) 'In this forest, you are surrounded with dark *brown* trunks';

Grant tem vremenem nalil mne iz termosa bol'šuju kružku tëploj **koričnevoj** *burdy, kotoruju zaokeancy počemu-to nazyvajut* "*kofe*" (Ju. Poljakov) 'In the meantime, Grant poured me from his thermos a big mug of lukewarm *brown* wish-wash, which, for some reason, is called "coffee" by the transoceanics'.

The example of *koričnevyj* and similar adjectives corroborates, once more, the thesis that formalizing the system of color terms in a natural language with recourse to spectrum wave-length proves to be strained in many aspects – above all, the reasoning of this kind does not take into account the internal structure of the system and the way it is used by native speakers. Indeed, a native speaker does not proceed from the assumption that the spectrum is partitioned into disjoint fragments which are associated with some definite color term each – otherwise there were no language-internal difference between the color of earth and that of shoes, the color of fell and that of cups, etc. The fact that such differences not only do exist, but are even widespread and deeply integrated in the semantics of linguistic units proves that we use this system in another way. It may be done, for example, with recourse to the concepts of some prototypic "reference" objects associated with each color term, as was suggested already in Wierzbicka 1990's pioneering work (cf. also the development of these ideas in Rakhilina 1995 and 2000 with reference to Russian, in Tokarski 1995 and 1997 with reference to Polish, and especially a series of studies conducted at the University of Warsaw under the direction of Renata Grzegorczykowa and Krystyna Waszakowa, cf. Waszakowa 1997 and 1999, Javor'ska 1999, and others).

Further to what has been said, let us consider in some detail combinatorial properties of the adjectives *seryj* 'grey', *zelënyj* 'green' and *žëltyj* 'yellow'. All these color terms are undoubtedly basic in Russian, they refer both to artifacts and natural objects and have

definite connotations. Semantic description of these adjectives can, as we believe, shed new light on the naïve semantics of the corresponding colors in Russian.

Seryj 'grey'

The Academy Dictionary of Russian explains the meaning of *seryj* as follows: "The color of ashes obtained by mixing black and white". In our opinion, this explanation is too far form the actual semantics of *seryj*. The authors of the Academy Dictionary have tried to solve the linguistic problem appealing to the referent of linguistic term and identifying *seryj* (with no obvious prototype) with the semantically close denominal adjective *pepel'nyj* 'ashen, ash-grey', whose relation to the prototype is quite transparent. Yet the combinability of *pepel'nyj* in Russian is, first, very restricted, and, second, completely different from that of *seryj*. Thus, on the one hand, *pepel'nyj* cannot be substituted for *seryj* in its key context, to wit, *pepel'nye* / **serye volosy* 'ash-grey hair'; and, on the other hand, the context which are most typical for *seryj*, exclude *pepel'nyj*, cf.: *seraja* / **pepel'naja bumaga* / *ten'* / *pyl'* 'grey paper / shadow / dust'. Both adjectives are possible only in a much more trivial area of artifact colors. It should be noted that the combinability of *seryj* in Russian is remarkably selective: apart from the contexts above, *seryj* is possible mostly with some names of animals (these cases were discussed previously in some detail), as well as with names of garments. In Old Russian, according to Baxilina 1975, the combinability of *seryj* was no less restricted: though it was attested in the most ancient documents, it used to refer exclusively to the color of wool or monk's garments.

Our hypothesis is that Russian *seryj* is primarily related to the idea of 'low visibility', of being hardly perceptible. Hence its clear negative connotations (the grey color is undoubtedly a "bad" one in Russian folk semantics) and the tinge of "featureless" and "blurred", showing up in such contexts as *noč'ju vse koški sery* 'at night, all the cats are grey' [a proverb] or *seryj kardinal* 'power broker', lit. 'grey cardinal'. Incidentally, all the grey animals are likely to be imperceptible and hiding, as mice, hares and wolves; cf. also a frequent combination *serye teni* 'grey shadows'. This explains why *seryj* is incompatible in Russian with most names of signs or symbols (cf. [??]*seryj znak* / *flag* / *strelka* 'grey sign / flag / arrow', etc.), since a sign is normally designed for being visible; similarly, a combination like [??]*serye černila* 'grey ink' sounds oddly. This strong semantic peculiarity of *seryj* excludes many other nouns as well, cf. [?]*serye cvety* / *napitki* 'grey flowers / drinks' and the like[2].

Zelënyj 'green' and *žëltyj* 'yellow'

Generally, combinatorial properties of *zelënyj* 'green' and *žëltyj* 'yellow' have much in common: in both cases, there exists a "strong" (i.e. semantically homogeneous and most frequently used) nominal domain related to living vegetation. In the case of *zelënyj*, the focal color is that of young and growing grass[3] and leaves, while *žëltyj* figures primarily as

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[2] The monograph Borodina & Gak 1979, which provides a detailed study of French color terms (with special attention to the history and causes of French loans from Germanic languages with the meaning 'white', 'brown', 'grey'), suggests an interesting analysis of Germanic 'grey' (English *grey*, German *grau*, etc.) as a color related to the decline of human life.

[3] Note, that Russian *zelënyj* (as well as its Ukrainian cognate) can never apply to the fresh grass which has been cut down (and is still green), because semantically this color term (both in Russian and Ukrainian) is strictly associated with the idea of growth; see Javor'ska 1999 and Rakhilina 2000 for more details.

the color of fading. This domain is the most obvious candidate for prototypical adjectival uses – at least in Russian, though possibly for other languages as well. This analysis agrees well with Wierzbicka 1990's view of *green* (some qualifications will be given below), but the treatment of *yellow* proves to be more problematic, since it is 'sun' that Wierzbicka (and some of her followers, as, for example, Tokarski 1995 and 1997) suggests as a cross-linguistic prototype for 'yellow'.

Another problem is related to the possible sources of negative connotations. In the case of *žëltyj*, the negative component can be easily detected in the prototypical contexts of fading vegetation as such. However, in the case of *zelënyj* the prototypical contexts are strictly neutral: the negative assessment appears only when the adjective applies to growing fruits, yielding in these cases the meaning 'not ripe, premature' (cf. also in figurative context: *zelënyj junec* 'greenhorn').

Still, both *žëltyj* and *zelënyj* tend to be used for describing a sickly complexion and unpleasant discharge, *žëltyj* alone – for describing sickly or aggressive eyes (especially, those of animals), *zelënyj* alone – for describing spoilt food and most of reptile and insects (which are ascribed pragmatically negative connotations in Russian). On the contrary, the names of natural objects with clearly positive connotations (such as *solnce* 'sun', *zoloto* 'gold', *volosy* 'hair', *xleb* 'bread', *kaša* 'kasha, gruel' etc.) seem to avoid these color adjectives. This fact alone argues powerfully against 'sun' as a possible prototype for Russian *žëltyj*.

An interesting hypothesis explaining a similar behavior of the adjective for 'green' in Ukrainian (and applicable equally well to Russian) is suggested in Javor'ska 1999. The author relies heavily on the history of the word (which, incidentally, goes back to the same Indo-European root as the term for 'yellow') and argues that the unusual behavior of 'green' can be accounted for in the light of the old Indo-European opposition of "living" ~ "non-living", since 'green' was used to denote both poles of it. From the historical point of view, this explanation is plausible. Moreover, given that 'green' and 'yellow' have a common origin, it must hold for 'yellow' as well, which also describes the color of living (albeit fading) vegetation.

It should be noted that the common origin and similar syntactic behavior of 'green' and 'yellow' in Russian, Ukrainian, as well as in other Slavic[4] (and possibly in other Indo-European) languages, point out that, apart from suggested by Wierzbicka "macro-color" *grew* (combining 'green' and 'blue'), one could speak about another "macro-color", namely, *grellow*, representing both green and yellow. However, the actual linguistic situation is here at odds with the construction proposed by Wierzbicka. The problem is that, according to Wierzbicka, green and yellow fall into the opposite groups, since yellow is said to belong under the "bright" colors, while green, under the "dark" ones. Therefore, these colors are not combinable into one and the same "macro-color", which is thought of as a generalization of colors from the shared group (like yellow and red, or green and blue).

On the other hand, synchronic factors are also to be taken into account in search of a prototype. Indeed, Russian *green* (and especially *yellow*) are close enough to the colors which describe human skin in its most natural states, cf. such basic colors as *krasnyj* 'red', *belyj* 'white', as well as *rozovyj* 'pink' and even *zolotoj* 'golden' (etymologically, the last has the same root as *zelënyj* and *žëltyj*). This referential proximity contributed to the particular position of *zelënyj* and *žëltyj*: they got opposed to the set of "natural human colors", and, by virtue of anthropocentric character of the world image as a whole, it resulted in some negative connotations. We do not think, however, that this negative component is a proper part of their semantic representation, because there exists a large class of very fre-

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[4] As concerns Polish, see Tokarski 1997 and Waszakowa 1997 for more detail.

quent combinations with the names of artifacts, where both adjectives are completely neutral, cf. such constructions as *zelënyj / žëltyj sviter / dom / zabor / abažur* 'green / yellow pullover / house / fence / lamp-shade' etc. Yet the semantic description (which reflects, according to Wierzbicka 1990, the concept of a prototype) must include the idea of differing from the color of healthy human body, because it determines all the semantic and combinatorial peculiarities of *zelënyj* and *žëltyj* just discussed.

Conclusion

Let us summarize our main findings.

– The combinability of color adjectives and names of objects in attributive constructions is essentially non-trivial. It reflects complex linguistic adaptation of each color term by a given culture. Therefore, Berlin & Kay's criterion 3 (that basic colors must have a broad combinability) needs some qualification.

– The patterns of attributive combinability show that basic color terms can characterize natural objects and thereby become conventional and acquire various connotations. This is possible, because there is always some concept behind a basic color, which determines combinatorial properties of the corresponding color term. This principle can be exemplified by Russian *seryj* (related to the concept of 'imperceptibility'), as well as by *žëltyj* (related to the concept of 'fading') and *zelënyj* (related to the concept of 'living and dead'). It is the concept that creates a stable area of focal uses for basic colors in every language; the same concept is primarily responsible for semantic and syntactic cross-linguistic differences in focal uses of terms for "one and the same" physical color.

– Each new color term, before it becomes basic, has to follow a long path. Initially, "brand-new" color terms combine only with the noun *cvet* 'color' itself, ordinary names of objects being excluded. Thus, one can say only *mašina / lico kirpičnogo cveta* 'brick-red car / face', lit. 'car / face of brick color', and not **kirpičnaja mašina / kirpičnoe lico*, lit. 'brick car / face' (the phrases under asterisk would be acceptable in the sense 'made of brick', which is obviously pragmatically odd in these cases). Similarly, there exists an expression *černil'nogo cveta* 'inky, color of ink', but the adjective *černil'nyj* 'of ink' alone can hardly be used as a color term.

The data from corpora show, however, that in Modern Russian there is a slight difference between the two: *černil'nyj* seems to be on a somewhat more advanced stage, than *kirpičnyj*. Whereas no single example of *kirpičnyj* 'of brick' alone as a color term has been found, we have attested some sporadic uses of *černil'nyj*. Certainly, the overwhelming majority of color-describing contexts contain the construction *černil'nogo cveta*, cf.:

*Starajas' ubedit' samogo sebja, čto nikakoj maljarii u menja net, ja zalez v kusty eževiki i stal est' spelye, **černil'nogo cveta** jagody, no oni tože kazalis' mne bezvkusnymi, otdavali zapaxom kakix-to nevedomyx nasekomyx* 'Trying to convince myself that I have no malaria at all, I climbed into blackberry bushes and ate ripe, **inky** berries, but they too seemed tasteless to me, smelling of some mysterious insects' (F. Iskander)

However, some rare examples of the "true" adjectival use in color-describing contexts are also available, as *černil'nye tuči* 'inky clouds' or *černil'nyj asfal't* 'inky asphalt'; cf. the following example from the Bank of Russian National Corpus:

*Da vrode by vperedi, gde dolžny somknut'sja zarosli, ele prosmatrivalsja svetlyj v nix proem, na fone sovsem **černil'nogo** neba* 'And only in front, where the shrubbery must have closed down, it was as if some light aperture loomed against a background of quite **inky** sky' (An. Pristavkin)

Thus, *černil'nyj* must be considered as slightly ahead of *kirpičnyj*, so that Vasilevič 2003's claim that these terms occupy the same place within the color hierarchy is to be qualified.

– On the next stage, a color term combines freely with names of artifacts, though combinations with names of natural objects remain prohibited or very restricted. The full adaptation of a color term to the existing linguistic system is thus a long process. It is characterized by a competition between a "strong" term, replacing an old one within the domain of artifacts, so that a kind of peaceful coexistence arises, when an "old" color term is opposed to a "new" color term by the scope: the old term remains most natural in the domain of natural object, while the new one takes up the domain of artifacts. This is the exact case of the Russian "old" *buryj* 'brown', *ryžij* 'red', *bagrovyj* 'purple', on the one hand, and "new" *koričnevyj* 'brown', *fioletovyj* 'violet, purple', *oranževyj* 'orange', on the other hand. The adjectives from the last group were borrowed in the 17 century, and remain in a less advanced stage since that.

– In future, some "new" color terms can be expected to completely replace their predecessors and to occupy their place within the system – primarily those, which, like *koričnevyj*, have direct counterparts among the "old" color terms. As concerns those which (like *fioletovyj*) do not have immediate competitors in the old system, they are likely to repeat the path of *goluboj*: once the domain of natural objects is "conquered", these terms have a good chance to enrich the system with new hues.

There is general agreement that Berlin-Kay's theory has made a break-through in the systematic description of color terms. However, in current linguistic perspective it is obvious that the framework proposed in this theory is too rigid for cope with actual patterns determining the use of the color terms in various languages. Many subsequent studies, aware of the problem, endeavored to amend this conception.

An important step on this way was marked by MacLaury 1997's vantage theory, with its special emphasis on the cognitive grounds for scattered and non-stable character of the field of color terms. Our investigation, though carried out by quite different procedure, seems to confirm MacLaury's results and elaborates on non-stability of color terms.

Indeed, coexistence of several parallel color terms (related to the same physical fragment of the spectrum), motivated by the need for denoting both natural and artifact colors, can be one of the reasons of systemic non-stability and may generate the vantage effect in psycholinguistic experiments (such as those described by Frumkina or MacLaury): a large part of native speakers' difficulties in ascribing colors arises when they have to face a choice between natural and non-natural color.

At the same time, our study proposes an alternative explanation for relative stability of focal uses the basic color terms have in various languages, since these uses normally reflect semantically motivated relationships between colors and culturally salient natural objects.

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