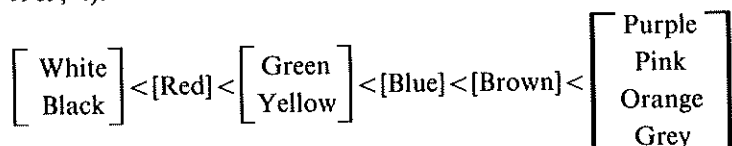


RUSSIAN COLOUR TERM SALIENCE*

In their study of colour terms in 98 languages, Berlin and Kay (1969) showed that languages acquire basic colour terms in a remarkably fixed order. If a language has only two basic colour terms, they will be dark and light (roughly corresponding to black and white); a language with three terms will also have red; a language with four terms will also have green or yellow; a language with five terms will have both green and yellow, and so on. This hierarchy can be summarised in the following table (Berlin and Kay, 1969, 4):



The purpose of this article is to help establish which colour terms in Russian should be considered as basic. Russian is particularly important because its colour term system seems not to fit perfectly into Berlin and Kay's hierarchy. While appearing to lack a basic term for purple (Daly, MS, 17; Corbett and Morgan 1988, 59–61), it has already acquired a second apparently basic term for blue (the two Russian blues are *sinij* 'dark blue' and *goluboj* 'light blue'). However, a number of possible candidates for basic term status exist (Corbett and Morgan 1988, 59–61) in the field of purple (*purpurnyj* 'purple', *purpurovyj* 'purple', *lilovyj* 'lilac', *bagrovyj* 'crimson' and *fioletovyj* 'violet'). The glosses given here (and in the table below) indicate the general field of meaning and are not in all cases recommended as translation equivalents.

Some confusion is also present in Russian in the field of brown, although here *koričnevyyj* 'brown' appears to have a stronger case for basicness than *buryj* 'brown' (Corbett and Morgan 1988, 57–59).

Berlin and Kay (1969) used a series of eight criteria to establish whether or not a given colour term is basic. The fourth of these criteria states that

each basic color term ... must be psychologically salient for all informants. Indices of psychological salience include, among others, (1) a tendency to occur at the beginning of elicited lists of color terms, (2) stability of reference across informants and across occasions of use, and (3) occurrence in the ideolects (*sic*) of all informants. (Berlin and Kay 1969, 6)

The experiment described here seeks to verify the inventory of basic colour terms in Russian with reference to point (1) of Berlin and Kay's above

criteria for salience. By asking Russians to list as many colour adjectives as they can think of in a limited period of time, it should be possible to establish which terms are candidates for basic term status. Basic terms should come fairly high on most people's lists, and appear on more lists overall. If this is the case, then an effective method will have been found for eliminating non-basic terms (which will occupy a lower overall rank and appear on fewer lists). Of course, colour terms passing the test for psychological salience may not all be regarded as basic terms: some could well be eliminated on one of the other seven criteria.

Work on the psychological salience of lexical items has already been carried out by other researchers. Battig and Montague (1969) conducted an experiment to establish which items are most commonly chosen when people are asked to list the members of a given category. The category 'seafood', for example, might generate such responses as 'lobster', 'shrimp', 'clam' (Battig and Montague 1969, 2). In their experiment, a group of 442 students from the universities of Maryland and Illinois were given a series of 56 subject headings, at thirty-second intervals, and were asked to list as many items as possible classifiable under each heading within the 30 seconds given. Battig and Montague then ranked the members of each semantic category in order of occurrence on the lists.

Battig and Montague included colour as one of their 56 categories. It is striking that the 11 basic colour terms of English as given by Berlin and Kay (1969, 94) occur within the first 12 places of Battig and Montague's ranking. The only non-basic term is *violet*, which comes 11th, relegating *gray* (grey) to 12th place. This bears out the view that there is a strong link between basic colour term status and psychological salience, and vindicates the use of psychological salience as a criterion for establishing basic term status.¹

We decided to follow Battig and Montague's method. Thirty-one native Russian speakers were asked (in Russian) to list as many colour terms as they could think of in five minutes. After each minute, they were asked to draw a line on their paper before continuing. This was to enable us afterwards to calculate our results based on a one-minute period, a two-minute period and so on up to the full five minutes. All legible responses were counted. If any item appeared more than once on a list, only the first occurrence was taken as valid.

The subjects of the experiment were Soviet undergraduate language students based in Moscow. All were originally from Moscow except two (one from Leningrad, one from Jaroslavl'). The majority (26) were female.

The following table ranks colour terms according to the number of

speakers who listed them in the first minute.² In the case of two or more colour terms with the same number of responses in the first minute, the second minute is taken into account, then the third, and so on up to the full five minutes. Colour terms which still have identical profiles are listed in alphabetical order of transliteration. Note that accumulated totals have been presented: column two shows the total number of responses after two minutes (rather than the number of responses *during* the second minute), and so on. The figure in brackets after the colour name shows how many times (if at all) the term appeared first on any respondent's list. This does not affect the order of ranking.

TABLE 1

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Goluboj (1) 'Light blue'	27	28	29	29	29
Zelënyj (2) 'Green'	25	28	30	30	30
Krasnyj (11) 'Red'	24	30	30	30	31
Sinij (4) 'Dark blue'	24	26	26	27	28
Čërnyj (1) 'Black'	21	29	29	29	30
Žěltyj 'Yellow'	21	24	25	27	27
Fioletovyj 'Violet'	20	24	25	26	27
Oranževyj 'Orange'	19	23	26	27	28
Belyj (9) 'White'	18	25	27	28	28
Koričnevyyj 'Brown'	17	24	28	28	29

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Bordovyj 'Claret'	13	17	18	19	20
Beževyj (1) 'Beige'	13	15	19	21	22
Rozovyj (1) 'Pink'	12	22	23	25	26
Sirenevij 'Lilac'	12	17	17	20	20
Malinovyj 'Raspberry'	11	14	20	21	22
Seryj 'Grey'	10	20	24	27	27
Salatovyj 'Light green'	10	17	21	22	22
Alyj 'Scarlet'	8	13	16	17	19
Lilovyj 'Lilac'	8	10	14	15	16
(Cvet) morskoy volny 'Ocean-wave-coloured'	6	10	12	15	18
Purpurnyj 'Purple'	4	6	8	9	10
Zolotistyj 'Gold'	4	7	9	12	12
Vasil'kovyj 'Cornflower-blue'	3	3	4	4	4
Tëmno-sinij 'Dark blue'	3	4	9	11	13
Bolotnyj 'Brownish-green'	3	5	9	9	12

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Serebrjanyj 'Silver'	3	6	10	11	13
Limonnyj 'Lemon-coloured'	3	7	7	8	10
Birjuzovyj 'Turquoise'	3	8	9	11	11
Višněvyj 'Cherry-coloured'	2	5	7	8	8
Serebristyj 'Silver'	2	4	8	9	9
Tëmno-koričnevyyj 'Dark brown'	2	4	6	8	9
Ryžij 'Ginger'	2	4	5	7	8
Kremovyj (1) 'Cream'	2	3	6	8	8
Izumrudnyj 'Emerald-green'	2	3	6	7	7
(Zelěnyj cveta) xaki 'Khaki'	2	3	5	5	5
Svetlo-seryj 'Light grey'	2	3	4	7	7
Tëmno-seryj 'Dark grey'	2	3	3	5	5
Bledno-goluboj 'Pale light-blue'	2	3	3	4	4
Svetlo-goluboj 'Light light-blue'	2	2	2	2	2
Terrakotovyj 'Terracotta'	1	4	4	6	6

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Ul'tramarinovyj 'Ultramarine'	1	4	4	5	5
Palevyj 'Straw-coloured'	1	4	4	4	4
Temno-zelěnyj 'Dark green'	1	3	7	7	7
Zolotoj 'Gold'	1	2	6	7	9
Kofe s molokom 'Coffee-coloured'	1	2	3	4	4
Pesočnyj 'Sandy'	1	2	3	4	4
Svetlo-zelěnyj 'Light green'	1	2	2	3	5
Bledno-rozovyj 'Pale pink'	1	2	2	3	3
Bordo 'Claret'	1	2	2	2	2
Fistaškovyj 'Pistachio-green'	1	2	2	2	2
Sine-zelěnyj 'Blue-green'	1	2	2	2	2
Sero-goľuboj 'Grey-blue'	1	1	3	3	3
Těmno-goľuboj 'Dark light-blue'	1	1	3	3	3
Svetlo-sinij 'Light dark-blue'	1	1	2	3	3
Šokoladnyj 'Chocolate-coloured'	1	1	2	2	4

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Nebesnyj 'Sky-blue'	1	1	2	2	2
Morkovnyj 'Carrotty'	1	1	2	2	2
Kofejnyj 'Coffee-coloured'	1	1	1	4	5
Bescvetnyj 'Colourness'	1	1	1	2	2
Bledno-žěltyj 'Pale yellow'	1	1	1	2	2
Indigo 'Indigo'	1	1	1	2	2
Plamennyj 'Flame-coloured'	1	1	1	1	2
Salatnyj 'Light green'	1	1	1	1	2
Goroxovyj 'Pea-green'	1	1	1	1	1
Jadovito-zelěnyj 'Bright-green'	1	1	1	1	1
Melanževyj 'Variegated', 'flecked'	1	1	1	1	1
Myšino-seryj 'Mousey-grey'	1	1	1	1	1
Sedoj 'White' (of hair)	1	1	1	1	1
Sero-sirenevij 'Greyish lilac'	1	1	1	1	1
Svetlo-koričnevij 'Light brown'	—	4	8	8	9

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Tëmno-rusyj 'Darkish) light brown' (of hair)	—	—	1	1	1
Tëmno-žěltyj 'Dark yellow'	—	—	1	1	1
Želtovatyj 'Yellowish'	—	—	1	1	1
Cvet slonovoj kosti 'Ivory-coloured'	—	—	—	1	2
Žélto-koričnevij 'Yellowish-brown'	—	—	—	1	2
Cvet čajnoj rozy 'Tea-rose-coloured'	—	—	—	1	1
Èlektričeskij 'Electric blue'	—	—	—	1	1
Golubovato-seryj 'Light-bluish-grey'	—	—	—	1	1
Golubovatyj 'Light-bluish'	—	—	—	1	1
Issinja-čěrnyj 'Blue-black'	—	—	—	1	1
Kipenno-belyj 'Brilliant white'	—	—	—	1	1
Kofe 'Coffee-coloured'	—	—	—	1	1
Krasnovatyj 'Reddish'	—	—	—	1	1
Kubovyj 'Indigo'	—	—	—	1	1
Matovyj 'Matt'	—	—	—	1	1

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Ognenno-ryžij 'Flame-red' (of hair)	—	—	—	1	1
Prozračno-goluboj 'Transparent blue'	—	—	—	1	1
Rozovatyj 'Pinkish'	—	—	—	1	1
Rubinovyj 'Ruby-red'	—	—	—	1	1
Serebristo-seryj 'Silvery-grey'	—	—	—	1	1
Sinij-èlektrik 'Electric blue'	—	—	—	1	1
Slonovaja kost' 'Ivory-coloured'	—	—	—	1	1
Slonovyj 'Elephant-grey'	—	—	—	1	1
Zaščitnyj 'Khaki'	—	—	—	1	1
Želtovatyj 'Yellowish'	—	—	—	1	1
Zemlistyj 'Sallow'	—	—	—	1	1
Zolotisto-beževyj 'Golden-beige'	—	—	—	1	1
Žemčužnyj 'Pearl'	—	—	—	—	2
Bordovo-krasnyj 'Claret-red'	—	—	—	—	1
Dymno-goluboj 'Smoke-blue'	—	—	—	—	1

TABLE 1 (continued)

Number of responses for colour terms after successive minutes

Colour	1st min.	2nd min.	3rd min.	4th min.	5th min.
Grjazno-rozovyj 'Dirty pink'	—	—	—	—	1
Jantarnyj 'Amber'	—	—	—	—	1
Jarko-sinij 'Bright-dark-blue'	—	—	—	—	1
Kadmij 'Cadmium'	—	—	—	—	1
Ognennyj 'Fire-coloured'	—	—	—	—	1
Purpurno-zolotoj 'Purple-gold'	—	—	—	—	1
Ul'tra-fioletovyj 'Ultraviolet'	—	—	—	—	1

The most striking conclusion to be drawn from the Table³ is that all the indisputably basic colour terms occur within the first 16 items. This suggests that this is a good method for eliciting basic colour terms and that any other terms high on the list deserve to be considered for basic term status. It is also worth noting that both *sinij* 'dark blue' and *goluboj* 'light blue' are near the top of the list: further evidence that each of these two terms is basic.

In addition to these indisputable basic terms, the early part of the list includes all the candidates for basic term status considered in our previous work (Corbett and Morgan 1988) except *buryj* 'brown', *purpurnyj* 'purple', *purpurovyj* 'purple' and *bagrovyj* 'crimson'. *Purpurnyj* occurs in 21st position, which allows it to retain some credibility as a basic term, but the other three should now be rejected as non-basic. This leaves *koričnevyy* 'brown' as the only candidate for the brown 'slot', and *fioletovyj* 'violet', *lilovyj* 'lilac' and *purpurnyj* 'purple' as the best contenders for basic purple. However, morphological evidence and frequency counts (Corbett and Morgan 1988) suggest that *purpurnyj* 'purple' is unlikely to be basic. There

is even evidence that its semantic field overlaps with that of *krasnyj* 'red' (Hill 1972, 72-4; Vasilevič 1983, 10). The presence of three other potential purple terms, *bordovyj* 'claret', *sirenevyj* 'lilac' and *malinovyj* 'raspberry' might at first sight appear confusing, but in fact they can all be rejected on the first of Berlin and Kay's (1969, 5-7) criteria for basicness: none is monolexic, all being derived from the Russian word for the object or substance whose colour they denote. The fact that it is predominately in the field of purple that such non-basic terms achieve a high level of psychological salience tends to bear out the view that this is a problematic field in Russian.

The only other non-basic terms among the top twenty items are *beževyj* 'beige', *salatovyj* 'light green', *alyj* 'scarlet' and *cvet morskoy volny* 'ocean-wave-coloured'. Of these, *salatovyj* (from Russian *salat* 'green salad') and *cvet morskoy volny* clearly fail the test for basicness as they are derived from the Russian word for an object of that colour. *Beževyj* and *alyj* can be rejected on Berlin and Kay's second criterion for basicness (1969, 6), as both are included in the meaning of another colour term (*koričnevyy* 'brown' in the case of *beževyj*⁴ and *krasnyj* 'red' in the case of *alyj*).

The weak position of *buryj* 'brown' relative to *koričnevyy* 'brown' is compounded by the presence of derived forms of *koričnevyy* higher up on the table. *Buryj* occupies 108th position, a long way below *tëmno-koričnevyy* (31st), *svetlo-koričnevyy* (70th) and *bledno-koričnevyy* (85th). This further suggests that *buryj* should be rejected as a basic term in favour of *koričnevyy*. The use of morphological derivation as a clue to basic status of colour terms was originally proposed by Dixon (1982, 23-4), and has been developed by Corbett and Morgan (1988).

The principle of following Battig and Montague's method involved ranking colour terms primarily according to data from the first minute. Battig and Montague, with 56 semantic categories to investigate, were only able to spend 30 seconds on each. An alternative way of presenting our data would have been to rank the colour terms primarily according to the total number of responses within the full five-minute period. This modifies the results in a way which is particularly striking. The list of colour terms which achieve 26 or more responses after the full five minutes consists exclusively of 11 basic terms (including the two main blue terms), with the addition of *fioletovyj* 'violet', which ranks equal ninth (i.e. a total of 12 terms). While none of these 12 terms is separated from its neighbouring term by more than a single point, a significant gap of four points separates these twelve terms from the next term on the list.⁵ This lends further weight to the validity of the method and suggests that *fioletovyj* 'violet' may be closer to achieving basic status than *lilovyj* 'lilac'.

CONCLUSION

The concentration of indisputably basic colour terms at the top of the table confirms the value of elicited lists in establishing an inventory of basic colour terms. It is interesting to note that the lists become better predictors as subjects are given more time. The prominent position of *sinij* 'dark blue' and *goluboj* 'light blue' reinforces the view that each of these terms is basic. Conversely, colour terms which previously appeared potentially basic, but which here occur a considerable way down the table, must now be considered as having a weaker claim to basic status. The colour terms involved are *buryj* 'brown', *purpurovyj* 'purple' and *bagrovyj* 'crimson'. *Purpurnyj* 'purple' retains some claim to basic status, but the strongest contenders for the Russian purple "slot" are *lilovyj* 'lilac' and (perhaps the best contender) *fioletovyj* 'violet'. *Koričnevyyj* 'brown' emerges as the best candidate for basic brown. The presence of additional terms near the top of the table is not problematic. When we examine data from the full five minutes, these terms are clearly separated from the basic terms. Moreover, they can be demonstrated not to be basic by applying other criteria from Berlin and Kay's list (1969, 5-7). By adding further evidence that Russian has two basic terms for blue, while still having insufficient evidence to say that Russian has a single basic term for purple (there are problems with *fioletovyj* 'violet' and *lilovyj* 'lilac', discussed in Corbett and Morgan 1988), we confirm that Russian causes difficulties for the Berlin and Kay hypothesis, and so deserves further investigation. But this should not obscure the remarkably close fit of the data to the predictions derived from the Berlin and Kay hierarchy.

NOTES

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¹ The position of *violet* above *gray* is interesting. On the one hand, it has already been suggested that grey is a 'wild card', and can appear anywhere in the developmental hierarchy (Berlin and Kay 1969, 45; Kay and McDaniel 1978, 640fn). On the other hand, there is evidence that the field of the basic term purple poses problems in Russian, and that Russian may not yet have acquired a purple term (Daly, MS, 24-39; Corbett and Morgan 1988, 59-61). The (non-basic) English term *violet* is contained within the semantic field of purple, and it is interesting that grey should have been displaced by a term from that particular field: this could suggest that purple was once a problem area for English. This hypothesis would, however, require further verification.

² After the experiment had been conducted, it was suggested by respondents that results would be distorted by a popular Russian saying, in which the initial letter of each word corresponds to a colour of the rainbow in the order red, orange, yellow, green, light blue, dark blue, violet (Corbett and Morgan 1988, 60fn). In fact, the data revealed that no one had listed colours in this order. It was further suggested that respondents would list colours according to semantic field, starting with (say) red, and progressing through various shades of red

before tackling the next colour area. But it turned out that only one respondent used this strategy.

³ Note that items such as *bordovyy* 'claret' and *bordo* 'claret', or *limonno-žěltyj* 'lemon-yellow' and *limonnyj* 'lemon-coloured' have been classified separately, even though they are similar in form and derivation. Grouping them together would not, however, make a substantial difference to the table. The items *cvet morskoy volny* and *morskoy volny* were, however, grouped together as the single item (*cvet*) *morskoy volny* 'ocean-wave coloured', since the latter term is clearly a lexical contraction of the former. The same applies to *zelënyj cveta xaki* and *xaki*, which are grouped together as (*zelënyj cveta*) *xaki* 'khaki'.

⁴ This is less certain in the case of *beževyy* 'beige' than with *alyj* 'scarlet'. However, further arguments against *beževyy* are that it does not figure in the available frequency counts (which is relevant for Berlin and Kay's fourth criterion), and it is also a comparatively recent borrowing (which makes it questionable by Berlin and Kay's seventh criterion).

⁵ This division between the first twelve items and the rest of the list begins to emerge after two minutes. After two minutes, the twelfth term has 20 points and the thirteenth has 17; after three minutes, the twelfth term has 23 points and the thirteenth term has 21; after four minutes, the twelfth term has 25 points and the thirteenth has 22.

REFERENCES

- Battig, W. F. & Montague, W. E.: 1969, 'Category norms for verbal items in 56 categories: a replication and extension of the Connecticut category norms', *Journal of Experimental Psychology* – Monograph 80, 3, 2.
- Berlin, B. & Kay, P.: 1969, *Basic color terms: their universality and evolution*, Baltimore.
- Corbett, G. G. & Morgan, G.: 1988, 'Colour terms in Russian: reflections of typological constraints in a single language', *Journal of Linguistics* 24, 31–64.
- Daly, T.: MS, 'Color terms in the Slavic languages', Berkeley.
- Dixon, R. M. W.: 1982, *Where have all the adjectives gone?: and other essays in semantics and syntax*, Berlin.
- Hill, P. M.: 1972, *Die Farbwörter der russischen und bulgarischen Schriftsprachen der Gegenwart (Versuch einer Klassifikation und einer strukturell-semantischen Analyse)*, Amsterdam.
- Kay, P. & McDaniel, C. K.: 1978, 'The linguistic significance of the meanings of basic color terms', *Language* 54, 610–646.
- Vasilevič, A. P.: 1983, 'Psixolingvističeskij podxod k ustanovleniju leksičeskix sootvetstvij (na materiale bolgarskix, russkix i anglijskix cvetonaimenovanij)', *Săpostavitel'no ezikoznanie* 8, 5–17.

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