Historical and cultural aspects in Slovak color naming

Summary

The aim of our research is to uncover historical and cultural aspects in Slovak color terms by analyzing of lexicalization patterns. On the background of earlier system of categories, we find word-formation, other grammatical (eg. syntactic) and semantic (eg. metonymy) patterns participating in the creation of Slovak colour names in the structure of contemporary Slovak language. For all these patterns, we use the term lexicalization pattern that is involved in creating different semantic categories. Research of lexicalization patterns has shown that the system of color naming in the present-day language is not accidental, but has evolved from a previous state and is largely culturally determined.

Keywords: color naming, Slovak language, lexicalization pattern.

Introduction

The diversity and specificity of the world of colors has attracted human attention since time immemorial and it is therefore quite natural that it is also a field of interest that spans across several disciplines (biology, zoology, ontology, cultural anthropology, arts and others). The present study is based on a linguistic perspective and Wittgenstein’s conviction (2002), according to which man is acquainted with individual colors on the basis of learning to label with names their experiences with them, i.e. to associate apperceived color with its name. Therefore, attention is
drawn to which color terms a language has in order for a user to capture a wide variety of visual experiences. As it is often not an identical visual experience, the system of naming colors in each language is conditioned by the cultural-historical factors of color naming, as well as the structural characteristics of the language.

1. State of previous research

Color is a natural feature of the perception of a subject who is able to see the colourfulness of their surroundings almost from birth. The fact that colors are among the most basic perceptual qualities of human beings points to the fact that their visual perception is biologically determined. What is more, however, is the fact that color perception is also conditioned by non-biological, cultural factors (Démuth 2005, 133), which do not only affect attitudes towards individual colors or association with certain emotions (Dorn, Willalva, Giouli, Blanck, Wiebke, Kovalenko, Wandl-Vogt 2016, 237–243) or the semantic extensity of the lexemes indicating color in the linguistic image of the world (Vaňková 2003, 69–99; Tokarski 1995; Waszakowa 2000, 59–72; Gallo, Alefirenko 2007, 21–28 etc.) but also the overall division of the color space – the color classification located in grammatical-semantic structures of language.

This subject has so far yielded several more or less different perspectives and approaches, which have only gradually developed since the second half of the 19th century. Comparative studies of the early 20th century (e.g. the Sapir-Whorf relativity hypothesis on the conditionality of the language structure and conceptual processes of an individual) brought some initiative into the field of research on cultural determination of the specific division of the color spectrum, which is realized in individual languages with their own lexicon and semantic-grammatical structure.

However, the pioneering work of B. Berlin and P. Kay, *Basic Color Terms: Their Universality and Evolution* (1969), provided more important findings. On the basis of comparing color naming in 98 languages or dialects, the authors uncovered a universal color list that is conceptualized across cultures and is grouped into seven periods reflecting the evolutionary stage of culture represented by the language. These studies began

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1 On the basis of the European Network of e-Lexicography (www.elexicography.eu), the authors produce results pointing, for example, to the connection of the red color with anger in different European languages, including Russian.
a discussion that continues between the opinions of relativists on the one hand and universalists on the other. According to the universalists, the color categories are organized around the focal colors, or more precisely the color space is organized around six primary universal colors (black, white, red, green, yellow and blue) to which we easily attach prototypes and which are found in all languages in the division of color space in similar positions (Berlin, Kay 1969). On the other hand, the relativists argue that language conventions, widely differing across languages, have an influence on the partition of the color spectrum (Roberson, Davies, Davidoff 2000, 369–398; Lucy 1997, 320–346).

In addition to these opposing approaches, there is also a third opinion (Jameson, D’Andrade 1997, 295–319), according to which color terms in individual languages are determined in part by general principles of categorization, but there is also a language convention that can cause irregularities in optimally shaped color space. These perceptual limitations result in a potentially unlimited repertoire of foci, which means every color is “focal” (although some more than others) (Regier, Kay, Khetarpal, 2007, 1436–1441).

The development of the earlier category system in a language is strongly associated with the shaping of the color space that reflects color terms. This is confirmed by the opinion of psychologist Christine Ladd-Franklin (1929), according to which the overall process of color perception is largely influenced by evolutionary development. The developmental particularities of the color naming system in a language show that Berlin and Kay’s findings on universal color inventories cannot be overlooked; on the contrary, they have to be considered significant, but they are not final results, because the partition of the color spectrum is also determined by culture and its language conventions.

Unlike in Berlin and Kay’ s notion of color evolution in the Ladd-Franklin’s theory, this is an evolutionary development based on biological evolution. According to Ladd-Franklin the human eye carries fragments of its earlier evolutionary development. Ladd-Franklin observed that the most highly evolved part of the eye is the fovea, where, at least in daylight, visual acuity and color sensitivity are greatest. She assumed that peripheral vision was more primitive than foveal vision because night vision and movement detection are crucial for survival. Such color vision evolved in three stages: 1. achromatic vision (the majority of the population are not affected by black-white color blindness), 2. blue-yellow sensitivity (blue-yellow color blindness affects a small population), 3. red-green sensitivity (many people suffer from red-green color blindness) (Hergenhahn, 2009, p. 243–244).
2. Basic historical aspects of the Slovak color naming

The system of color naming in a language has its own history – evolving from an earlier system of categories. Based on the opinions of Berlin and Kay (1969), each society divides the color spectrum into at least two basic parts, white color with associated light colors and black color with dark colors. The more highly developed cultures (measured by our Euro-American criterion) differentiate more colors in the language (Vaňková 2005, 41). Etymological dictionaries confirm this fact also in the Slovak language.

Derivates of čierny ‘black’ and biely ‘white’, which Berlin and Kay put into the first stage of cultural development are the oldest, documented since the 12th century; but the names of the colors themselves existed and were used earlier (*12th century). In Old Slavonic, these colors have the form of *čьrnъ *bělъ (*bhělo-), from which other lexical units were derived, e.g. čierňava ‘smutiness’, čerň ‘charcoal black’, černica ‘blackberry’, beľmo ‘sclera’, belasý ‘sky-blue’, beliť sa ‘to be white’, bielit ‘albitate’, bielok/bielko ‘white’ etc. (Králik 2015, 69, 104). Three centuries later, červená ‘red’ became known (from the *15th century), which belongs to the second evolutionary stage and is derived from the participle of the unexemplified verb *červiť (in Old Slavic *čьrviti, to colorize by coccid – to obtain red dye from a special kind of insect (Králik 2015, 103; Machek 1968, 99), as well as zelený ‘green’ (from the *15.th century) from the participle *zel-ti ‘zelenieť sa, to be green’ (Králik 2015, 684), which Berlin and Kay place in the third development stage.

The other color terms, which according to Berlin and Kay represent the 4th –7th evolutionary degrees, have been documented since the 17th century. Žltý ‘yellow’ (since the *17th century), in Old Slavonic žьltъ, comes from the Indo-European expression *ĝhel- with the meaning ‘gleam’ (Králik 2015, 698). The explanation of the origin of the term modrý ‘blue’ (from the 17th century), in Old Slavic *modrъ, is not coincidental: a) it may be from the Indo-European *mad- with the meaning ‘wet, climb, drop’; b) it is related to the English madder (Králik 2015, 365). The Old Slavonic *gnědъ, now hnedý ‘brown’ (from the 17th century), is related to the Old Slavic verb *gnětiti ‘heat’ and with the semantic shift ‘burn’ > brown (Králík 2015, 200). Old Slavonic (*sivъ, *šědъ) has the names sivý/šedý ‘gray’ (from the 17th century), which originate from the common Indo-European designation of various, especially darker shades, which expanded with the Indo-European *kie-, *ki- ‘darkness’ (Králík 2015, 532, 576).
In the following color terms (fialový ‘purple’, ružový ‘pink’, oranžový ‘orange’) that Berlin and Kay also include in the 7th stage, an Old Slavonic origin has not been reconstructed, and derivatives from nouns designating the entities ruža ‘rose’ (from the 16th century), pomaranč ‘orange’ (from *17th century), fialka ‘violet’ (from the 19th century) developed later. All the colors mentioned above (biely ‘white’, čierny ‘black’, červený ‘red’, zelený ‘green’, žltý ‘yellow’, modrý ‘blue’, hnedý ‘brown’, sivý/šedý ‘gray’, fialový ‘purple’, ružový ‘rose’, oranžový ‘orange’), which are considered in the Berlin-Kay theory as universal (focal) colors, proved in our research to be basic colors. The colors emerging in the 7th stage of development have two distinct suffixes -ý, -á, -é (siv-ý ‘gray’) and -ový, -ová, -ové (fial-ový ‘lilac’, ruž-ový ‘pink’, oranž-ový ‘orange’), which reveal roots (e.g. Latin, Greek, German, French, etc.) other than Old Slavonic origin.

It appears that the suffix may be a relevant indicator in the synchronic appearance of the language, referring to the origin of the color term as well as to the differentiation of the color spectrum in the diachronic aspect. Tyrkysová ‘turquoise’ is a derivative of the German Türkis taken from the French turquoise ‘turkish stone’ (Králik 2015, 637); béžová ‘beige’ comes from the French beige; its origin is unclear (Králik 2015, 68). However, it is also similar in other derivatives: lilavá ‘lilac’ is from the French lilas/lilac through the German lila (Králik 2015, 328); bordová ‘claret, wine color’ comes from the French ‘Bordeaux’ (from the region of Bordeaux in southwest France) (Králik 2015, 77); purpurová ‘purple’ is derived from the Latin purpura, taken from the Greek porfýrā (Králik 2015, 484).

All color terms are used as adjectives in present-day Slovak. Some of these terms are used with a lower productivity rate in the original uninflected form without a suffix (lilavá/lila, bordová/bordó, purpurová/purpur), which indicates the effort through the suffix to emulate developmentally older color terms with Old Slavonic roots; sometimes they have a synonymous domestic equivalent expressed in composite (bordová – tmavočervená, vínovočervená; purpurová – sýtočervená, lilavá – svetlofialová, tyrkysová – modrozelená; béžová – žltohnedá).

The diversity of language constructions participating in the partition and differentiation of the color spectrum is rooted in culture and reflects

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3 The color adjectives change their Slovak grammar gender according to the grammar gender of the superior word (e.g. masculine: siv-ý dom, fial-ový dom; feminine: siv-á brána, fial-ová brána; neuter: siv-é okno, fial-ové okno).

4 The Slovak National Corpus (version prim-7.0-public-all) reports, for example, for the color bordová ‘claret’ (1222 frequency) / bordó (78 occurrences), purpurová ‘magenta’ (3311 frequency) / purpur (815 frequency).
the developmental particularities of the language. In color naming, languages have different lexical, semantic and grammatical patterns that are involved in the creation of specific meaning categories. We identify these patterns and meanings in the Slovak language and point out how they behave in dividing the color space.

3. Lexicalization patterns in current Slovak color naming

Research of lexicalization patterns has shown that the system of color naming in the present-day language is not accidental, but has evolved from a previous state and is largely culturally determined. The term lexicalization pattern includes types of word formation, and other grammatical (e.g. syntactic) and semantic (e.g. metonymy) patterns used for color naming in language. Research of colour naming in Slovak pointed to these basic types of lexicalization patterns (comprising derivation, compounding, as well as other syntactic patterns). These are lexicalization patterns, which, in conjunction with other syntactical patterns, contribute to the formation of different types of meaning in color naming. The meanings expressed primarily through the derivation are different from the meanings formed primarily by compounding, but some of the meaning categories can also be expressed secondarily by other lexicalization patterns (derivation or compounding).

There are three main types of meaning conveyed via derivation in Slovak: 1) N-like; 2) approximative meaning; 3 expressive (diminutive) meaning.

1. ‘N-like, N entity + suffix -ový/-ová/-ové (eg. fialový ‘violet-like’, olivový ‘olive-like’), when the noun for the familiar entity is used as a color term. There is a lexicalized metonymy OBJECT COLOR FOR COLOR, which is based on the common relationship between entity and color. In this case, nouns for entities (stems in the formation of color terms) indicate e.g. fruit (broskyňová ‘peach-like’), vegetables (hrášková ‘pea-like’), fish (lososová ‘salmon-like’), flowers (orgo-vánová/lilavá ‘lilac-like’) etc. The pattern N entity + suffix is expressed by adjective (adjective + noun) as one word (tyrkysová + košeľa ‘turquoise-like + shirt’) or a construction with constituents of the sentence in a subordinate relation (trávová zelená ‘grass-like green’). In Slovak this syntactic construction can be replaced by a compound Adv [N entity + suffix -ovo] + Adj, e.g. trávovo-zelená ‘grass-like – green’. But we also encounter color naming where the
meaning ‘N-like’ loses its adjectival form, which is signaled by the suffix and is substantivized (limetka ‘lime’, losos ‘salmon’).

2. ‘Approximative meaning’ is formed via suffix -(k)avý, -(a)stý (zelen-(k)avý/zelen-(k)astý ‘greenish’), or prefix + suffix – na-N-(a)stý (na-modr-(a)stý ‘bluish’), na-N-(a)lý (na-zelen-(a)lý ‘greenish’), na-N-(a)vý (na-červen-(a)vý ‘reddish’). However, this meaning can also be expressed in Slovak by the prepositional phrase do modra, do zelena, do červena etc. (Eg. Očko na prstení má modrastý/modravý nádhych. / Očko na prstení má nádhych do modra. ‘The eyelet on the ring has a bluish tint.’).

3. ‘Diminutive meaning’ is expressed by suffixes -učký, -unký, -ulinký (modr-učký/modr-unký/modr-ulinký); the suffix -ušký (zelenušký) is used marginally.

When it comes to derivation, suffixes are mainly used (very marginally prefix + suffix), which are specific for each meaning category. On the other hand, a different degree of synonymity is observed, because one meaning type can be expressed by several lexicalization (grammatical or semantic) patterns: e.g. ‘approximative meaning’ is formed via the suffix zelen-(k)avý, prefix + suffix na-zelen-alý; the prepositional phrase do zelena; the meaning N-like is expressed by the adjective (lososová) or substantive (losos).

Compounding enables more creativity in Slovak colour naming than derivation and allows for a more fine-grained naming of the colour spectrum. In this word formation pattern we meet with modifications referring to 1) brightness, 2) hue, 3) cross-sensory experience and 4) ancientness.

1. ‘Brightness’ is expressed by the adverb tmavo- ‘dark’, svetlo- ‘light’, bledo- ‘pale’ in compounds, such as tmavomodrý ‘dark blue’, svetlomodrý ‘light blue’, bledomodrý ‘pale blue’. But there are also syntagms with graded adjectives (tmavá/tmavšia modrá ‘dark/darker blue’, svetlá/svetlejšia modrá ‘light/lighter blue’) that Slovak language uses to express this meaning.

2. ‘Hue’ is formed via a subordinate relation between two color terms in compound, e.g. the Slovak zelenožltý ‘greenish yellow’. The adverb (as modifier) expressing the colourzeleno- specifies the basic colour term expressed by the adjective -žltý.

3. ‘Cross-sensory experience’ is characterized by a similar word-formation pattern to modifiers referring to hue and brightness. However, an adverb indicates: a) intensity (silnožltý ‘strong yellow’, slabomodrý ‘light blue’, slabo-weak’, prenikavo- ‘strident’ etc.) connected with b) acoustic experience (krikľavoželený ‘garishly green’), c) consistence (tuho- ‘fast’),
d) haptic experience (zamatovo- ‘velvety’). In Slovak, color naming does not apply to the experience of taste and aroma.

4. ‘Ancientness’ is lexicalized by the adverb staro- ‘old’ and šedivo- ‘gray’ which form the compounds staroružový ‘old rose’ and šedivozelený ‘grey green’.

Not all lexicalization patterns in contemporary Slovak color naming are equally productive. We observe the dynamics in the preferences not only of individual lexicalization patterns but also of the meaning categories that are involved in the distribution of the color space by Slovak native speakers.

4. The semantic pattern ‘N-like’ in current Slovak color naming

From above lexical patterns, we choose semantic pattern ‘N-like’, because the results of previous linguistic studies (Conklin 1973; Wierzbicka 2005; Malt, Majid 2013) show that languages regularly use terms for familiar and well-known entities to name colors. This metonymic shift is primarily realized in Slovak via the lexicalization pattern N entity + suffix -ový/-ová/-ové.

The name forming the root of a color term can represent entities of the most diverse kind. The examples obtained from fashion catalogs showed the following types of entities:


The most common entities used in Slovak to create color terms are those whose color is not difficult for a typical Slovak native speaker to distinguish, that is, different flowers and fruits; but there is relatively strong representation (as well as relatively simple color distinction) of rocks, metals and gems. Some color names with the lexical meaning of ‘N-like’ are in a determinative syntagma (as a structurally and linearly organized combination of two words, of which one dependent (subordinate) member determines the second independent (superordinate) member) or compound word often associated with a basic (meaning superordinate) color term. These are especially entities whose color attribute is not well known or are vague in color, e.g. color naming referring to professions (kardinálska červená ‘cardinal-like red’, kráľovská – námornícka modrá ‘king-like blue – sailor-like blue’, poľovníčka – vojenská zelená ‘hunter-like green – soldier-like green’, etc.), environment
(azúrová modrá – oceánová modrá – dymová modrá ‘azure-like – ocean-like – fume-like blue’).

Substantivization is regularly present in color terms of entities whose suffix is formed by vowel combinations (fuksia, aqua). However, substantivization is also irregularly applied to other color terms that have a metonymic relationship to entities with easily attributable and single color attributes (smaragd, jahoda, citron ‘emerald, strawberry, lemon’, etc.). A specific group of color terms with the meaning ‘N-like’ are entities used in phrases: ružové drevo, jahňacia nappa, morský rak. These color terms were only encountered in fashion catalogs where a very detailed perceptual resolution is expected of the reader.

These data show that metonymy in color naming with the meaning ‘N-like’ is greatly influenced by the knowledge of native speakers about the world around them, their preferences and that with which they are in immediate visual contact. The cultural context and visual color stimuli from the natural environment play a major role in the process of color naming. As most colorful, modern Slovaks perceive the world of flowers and fruits, which in the earlier developmental phases were a source of entities in the partition of the color spectrum (these are the color terms fialový ‘violet-like/purple’, ružový ‘rose-like/pink’, oranžový ‘orange-like/orange’ that Berlin and Kay placed into the 7th stage of development, although the semantic category ‘N-like’ began to form much earlier, specifically when naming the color red based on the dye obtained from a special kind of insect).

Conclusion

The lexicalization patterns preferred in contemporary Slovak color naming reveal inherent laws that have their developmental and cultural justification. The meaning category brightness expressed by the adverbial components tmavo-/temno- ‘dark’, svetlo- ‘light’, bledo- ‘pale’ is associated with the distribution of the color spectrum on two basic parts (white color with assigned light colors and black color with dark colors), which in Slovak (and also in Old Slavonic) *čmna *běl ( *bhelo-) have been documented since the 12th century. According to Berlin and Kay (1969), this is the start point in the evolution of culture and its language with its own way of conceptualizing the color world.

In the next development stages, the semantic category ‘N-like’ begins to form. Its dominance in contemporary communication is linked to the basic cognitive assumptions of human beings who perceive the properties of entities (e.g. colors) naturally via the senses as integral parts of
a whole, well-known object. This metonymic relationship is realized toward entities of the most diverse kind (in particular, toward flowers and fruits in Slovak), which are ideal representatives (prototypes) of a color, which is largely associated with cultural specific (intersubjective) motives. Research of lexicalization patterns has shown that the system of color naming in the present-day language is not accidental, but has evolved from a previous state and is largely culturally determined.

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**Historické a kultúrne aspekty názvov farieb v slovenskom jazyku**

**Zhrnutie**

Lexikalizačné vzory uprednostňované v súčasnej slovenčine pri tvorení názvov farieb odkrývajú zákonnosti, ktoré majú svoje vývinové a kultúrne opodstatnenie. Významová kategória svetlosti vyjadruvána adverbiálnymi komponentmi tmavo-, temno-, svetlo-, bledo- je spojená s rozložením farebného spektra na dve základné časti (na bielu farbu s priradenými svetlými farbami a čiernu farbu s tmavými farbami), pre ktoré v slovenčine (resp.
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v praslovančine) sú od 12. storočia písomne doložené výrazy *čьrnъ a *bělъ (*bhēlo-).

Podľa Berlina a Kaya (1969) ide o východiskovú etapu v evolučnom vývoji kultúry a jej jazyka vlastným spôsobom konceptualizácie farebného sveta.

V ďalších vývojových etapách sa začína formovať sémantická kategória ‘N-ako’. Jej dominantnosť v súčasnej komunikácii je viazaná na základné kognitívne predpoklady človeka, ktorý vlastnosti predmetu (napr. farby) prirodzene zmyslami vníma ako neoddeliteľné súčasti celku, t. j. známeho predmetu, javu. Tento metonymický vzťah realizuje k entitám najrozličnejších druhu (v slovenčine najmä ku kvetom a ovociu), ktoré sú z hľadiska jeho skúsenostného komplexu ideálnymi reprezentantmi (prototypmi) určitej farebnej vlastnosti, čo je vo veľkej miere spojené s kultúrne špecifickými (intersubjektivnými) motiváciami. Výskum lexikalizačných vzorov ukázal, že systém pomenovaní farieb v súčasnom jazyku nie je náhodný, ale vyvinul sa zo staršieho stavu a je vo veľkej miere kultúrne determinovaný.

Kľúčové slová: pomenovanie farieb, slovenský jazyk, vzor lexikalizácie.

Historyczne i kulturowe aspekty nazw kolorów w języku słowackim

Streszczenie

Wzory leksykalne preferowane we współczesnym języku słowackim do tworzenia nazw kolorów ujawniają regularności, które mają rozwojowe i kulturowe uzasadnienie. Znacząca kategoria jasności, wyrażona przez przysłówkowe komponenty mavo-, temno-, svetlo-, bledo-, jest związana z rozkładem spektrum kolorów na dwie główne części (kolor biały, związany z jasnymi odcieniami, oraz kolor czarny – z ciemnymi), na określenie których w języku słowackim istnieją (udokumentowane na piśmie od XII wieku) terminy *čьrnъ i *bělъ (*bhēlo-). Według Berlina i Kaya (1969), jest to początkowy etap ewolucyjnego rozwoju kultury i języka z określonym sposobem konceptualizacji świata kolorów. Na kolejnych etapach rozwoju zaczyna tworzyć się kategoria semantyczna „N-jak”. Przewaga tej kategorii w codziennjej komunikacji jest związana z podstawowymi mechanizmami poznawczymi człowieka, który właściwości obiektu (np. kolory) naturalnie postrzega jako integralne części jednej całości, tj. znanego przedmiotu, zjawiska. Człowiek realizuje ten metonomiczny związek w przypadku nazw obiektów najbardziej różnorodnych (w języku słowackim zwłaszcza kwiatów i owoców), które są pod względem złożoności doświadczenia idealnymi przedstawicielami (prototypami) określonej własności kolorystycznej, co w dużej mierze wiąże się z motywacją kulturową (intersubiektywną). Badania wzorców leksykalnych w języku słowackim wykazały, że system nazewnictwa kolorów we współczesnym języku nie jest przypadkiem, ale ewoluował ze stanu starego i jest w dużej mierze zdeterminowany kulturowo.

Słowa kluczowe: nazwy kolorów, język słowacki, wzór leksykalny.