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ON THE ETHNO-CULTURAL SPECIFICITY OF COLOUR NAMES: KAZAKH *ҚОNYR* 'BROWN' VS. POLISH *BRĄZOWY* 'BROWN'

Abstract: The article is based on an assumption of anthropological linguistics, in particular the biocultural theory of meaning (J. Zlatev), that the semantic system of language is determined by a combination of external factors, including environmental determinism. The need to adapt the cognitive system to the environment and geophysical conditions of existence of human groups leads to the fact that cultural worldviews and the corresponding semantic systems of languages differ. The authors consider the relative and culturally variable nature of colour terms using the example of the adjective *қonyr* in the Kazakh language and its lexical equivalent in the Polish language. The article shows that the presence of a large number of precedent phenomena of the brown colour among Kazakhs is manifested in a more intense functionality of this colour name in the Kazakh language. This concerns several aspects: high frequency, intensive polysemy, phraseology and connotations. To illustrate this, the authors provide language material from various sources, including national corpora of the Kazakh and Polish languages.

Keywords: anthropological linguistics, linguistic relativity, environmental determinism, cross-cultural linguistics, lexical semantics, colour names, polysemy, connotation

Introduction

The semantic definitions of colour designations can be both clear and obscure. Since colour is a sensory category, not a mental one, its lexical name (like other terms for emotional states and senses) does not indicate a concept, unlike the names of objects and phenomena. What is happening in a human's consciousness is displayed in an ostensive character, i.e. it consists of aligning with a sensory image retained in human memory. E. V. Rachilina (2007, 29) elaborates on this feature, where a special, fundamentally different approach, used by lexicologists in other cases, could be applied to the description of the semantics of colour designations. Linguistic studies of colours are based on experiments where the corresponding

words are compared with specific physical objects – colour shades. Within the framework of this experiment, an informant determines whether a designated word can be correlated with a particular standard colour sample. According to Rachilina (ibidem, 30; see also: Coleman | Kay 1981, 43), the content of colour designations does not have a structure typical of a lexical concept, i.e. an arrangement of particular parameters, since the only parameter that a native speaker is guided by when using a colour designation is its correspondence to a certain fragment of the colour palette.[1] When a person hears the expression *a bloke in a green jacket*, they understand it because they know what green looks like (a sample of green) and they know how to use the adjective *green*[2] correctly – in fact, this is what the systemic-linguistic content of colour designations relates to.

As noted above, the nature of colour designations (like other terms for sensory images) is formulated in such a way that generally accepted methods of linguistic-semantic analysis are not applicable. This is because the meaning of a word (a lexical concept) cannot be represented as a composition of descriptors, and a dictionary definition should be as follows: "GREEN – to the point where everyone knows that it is green".[3]

This fact explains why an extended concept of word meaning is employed to describe colour designations in linguistics (see Tokarski 2004, 24). Its content includes additional information, primarily, typical carriers of a colour feature (the so-called object prototypes), as well as information about connotations, i.e. accompanying semantic features resulting from the typical reference of a designated colour (see Ampel-Rudolf 1994; Komorowska 2018; Mucha 2014; Tokarski 2004; Stanulewicz 2009; Wierzbicka 1990; 2010; etc.). A. Szlachta (2018, 125) examined the subject references of colour designations by means of a questionnaire. The results reveal that prototypical carriers of colour features are relative. Thus, regarding white, the respondents indicated 9 typical carriers, with reference to black – 16, as for red – 16, etc.

Colour designations are heterogeneous in their psychological nature – they correspond to two types of knowledge: by acquaintance and by description, to use the terminology by B. Russell (1912, 48). The primary colour names originate from a memory and align with the visual perception data stored in memory. In this regard, a person knows what colour is blue or yellow without resorting to its

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1 However, this correspondence can change over time. For example, the Middle High German adjective *brun* referred to the shades of both brown and violet, while in Modern German its derivative, *braun*, is a name of the brown colour (Müller 2013, 117).

2 V. P. Belyanin (2016, 236) writes that "language proficiency [...] belongs not so much to the sphere of knowledge as to the sphere of skills."

3 Dictionaries usually contain an indication of the typical carrier of a given colour feature. For example, in the case of the adjective *green*, this is an indication of grass, and in the case of the adjective *blue*, this is an indication of the sky.

description with reference to typical referents[4] (such a reference may be necessary only in a situation where our communication partner does not know a particular colour name and we can imagine it descriptively, for example: the *colour of young wine*). Other colour designations, for example, *dark*, *transparent* or *the lightest shade of green*, represent mental concepts, i.e. knowledge by description.

Regardless of whether the subject connotations of colour designations belong to the peripheral part of their lexical content, or whether they should be interpreted as a result of inference processes realized in speech activity, i.e. as a phenomenon at the level of discourse (Belyanin 2016, 235), it is evident that the use of colour designations is largely conditioned by the knowledge of objects for which a particular colour is an important differential or a functional feature, i.e. (according to cognitive psychology terminology) it is regarded as a separate slot in the structure of the corresponding frame.[5] This fact is embodied in verbal associations. For example, in light of the available data,[6] colour designations are presented in the associations of individual nouns in the English language: *blue* within the associative context of the noun *sky, green* within the associative context of the noun *grass, orange* within the associative context of the noun *lemon, white* within the associative context of the noun *snow*, etc. Explanatory dictionaries point to subject references of colour designations. For example, in one of them (ISJP), the Polish noun *śnieg* 'snow' is defined as follows: 'snow is ice crystals in the form of white flakes falling from a cloud'. As shown, the definition of the word comprises the descriptor 'white'. This particular type of interdependence of meanings is manifested in the coherence of the text. A comparison of the two text fragments:

(1) It snowed yesterday. The trees looked unusual and stylish against the white background.
(2) It rained all day yesterday. The trees looked unusual and stylish against the white background.

In both fragments, there is no special connector that would indicate a semantic connection between the statements, however, the first example remains evident (*the fallen snow formed a white background*) because the semantic information in the words *snowed* and *white* refers to the same frame structure. In the second example, the rationale supporting the coherence of the text requires additional information, in the absence of which, the text might be perceived as meaningless.

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4 A child, as A. D. Košelev (2019, 208) writes, learns the basic names of colours at the age of 2.5 years. At this age, a child's cognitive system has not yet been formed and they may not yet know about the stereotypical subject references of colour designations in a given community. Thus, a two-year-old child living in a city does not necessarily associate brown with earth or soil.

5 This is also reflected in the motivation for the lexical form of some colour designations. For example, the English noun *tomato* is used in the meaning 'a shade of red, the colour of a ripe tomato'.

6 https://wordassociations.net/en (accessed: 02.04.2024).

The colour information contained in the meaning of a noun determines the interpretation of the entire phrase, particularly in cases where the colour characteristic of an item or phenomenon does not match the semantic standard. A comparison of some English expressions:

(3) the sky turned red
(4) the face turned red
(5) the leaves turned red
(6) the eyes turned red

Each of these expressions contains a semantic connotation, i.e. a part of the author's semantic intention that is not expressed by linguistic means. Example (3) refers to a sunrise or sunset, (4) refers to a person's excitement, (5) to autumn, and (6) to fatigue or an ophthalmic disorder. These connotations are supported by the information within the noun frames and are possible due to the combination of a noun and an adjective, i.e. they represent a semantic characteristic of the entire phrase. A similar phenomenon is observed in poetic texts. Tokarski (2004, 27) analyses a fragment of a poem by Cyprian Norwid:

(7) Give me the blue ribbon and I'll give it to you
Without a delay...
Or – give me your shadow with your flexible neck:
– No! I don't want the shadow.[7]

In the cited researcher's view, the adjective *blue* means fidelity in love, and this connotation is based on its prototypical reference: since the sky is (or is considered to be) a typical carrier of blue, additional features such as 'perfection', 'wisdom', 'peace' are associated with this colour. In relation to the emotional state of love, 'perfection' means 'perfect, i.e. faithful love' – thus, according to Tokarski, one connotation is generated by another one. Firstly, the stated interpretation should rather be considered as hypothetical, since there are insufficient arguments in favour of dealing with an allusion to fidelity, and not with other symbols – for example, sublimity, sincerity, or purity.[8] Secondly, Tokarski interprets the linguistic expression, taking into account only the meaning of the adjective, whereas in reality the meaning of the noun is no less important: a ribbon is one of the elements of women's attire, quite intimate (ribbons were braided into hair as decorations). Therefore, if any symbolic meaning is presented in this poetic fragment, its source is the entire *blue ribbon* structure. The interpretation of the poem would be different if the lyrical

[7] The original text: „Daj mi wstążkę błękitną – oddam ci ją || Bez opóźnienia... || Albo – daj mi cień twój z giętką twoją szyją: || – Nie! nie chcę cienia".

[8] Tokarski (2004, 28) admits that the connotation of fidelity in the case of the adjective *błękitny* 'blue' does not have sufficient language justification.

subject's request concerned, for example, a blue flower or a blue button. It should be noted that the blue ribbon has several symbolic interpretations: high quality, perfection, excellence, honour, prestige, support, etc. – each of them depends on the social context and type of discourse.[9] The evidence is that the reader tries to uncover the symbolic meaning of the text and it is explained by its specific genre – a lyric poem, i.e. an allusive text.

The existence of subject references of colour designations has its own interlingual and intercultural aspect. On the one hand, although there are intercultural differences in the sphere of perception (Matsumoto | Juang 2007, 137), they do not concern the perception of colour: regardless of the number of colour designations in a given language, representatives of different language communities have the same ability to distinguish and identify primary colours (ibidem, 136).

On the other hand, some experimental data indicate that the presence of a corresponding lexical colour designation in a language accelerates the processing of sensory information, for example, in operations such as classification or selection (Gleason 1961, 4; Martinovic | Paramei | MacInnes 2020; Winawer | Witthoft | Frank et al. 2007, 7783). In addition, the conceptualization of the colour parameters of objects and their language nomination in each cultural and linguistic community has a specific character. According to a widespread claim, "color semantics signified a sacral system of senses as a cultural component and it becomes embodiment of definite cultural values" (Sarmanbetova | Mandal 2019, 102).

Even in cases where colour designations are comparable in their semantic (denotative) function, they differ in their lexical background.[10] The use of colour designations, depending on the type of discourse, may involve inference, i.e. information about objects of which a particular colour is typical stored in the memory of a language user. Since in different cultural and language communities the semantic standards of colour designations (for example, such as *white like snow, black like coal, red like flame, yellow like cheese, green like a cucumber, brown like chocolate*) partially coincide and partially differ, and since objects as carriers of colour features are not always understood and evaluated in the same way (for example, the sun among northern and southern people). Linguistic expressions that contain colour designations have different connotations in different languages (although they partially coincide). An example is the colour red, which during the

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9 In this regard, one can refer to the theory of discursive consciousness, according to which cognition is a series of relatively autonomous representative modules, each of which is associated with a specific social context (Gumperz | Levinson 1996, 9; Stemplewska-Żakowicz | Zalewski | Suszek et al. 2009, 70).

10 This term denotes semantic features that do not relate to a lexical concept and do not participate in the language-mediated classifying activity of a person, and are also not necessary for recognizing the corresponding denotates (Vereščagin | Kostomarov 1980, 26).

Soviet era was considered a symbol of revolution and Soviet power (Faryno 1999, 154); this symbolism, however, has disappeared due to the collapse of the USSR.

There is a vast scientific literature on the variations in the symbolism of colours in various national cultures (Belyanin 2016, 236; Bradfield 2014; Chaudhary | Dutt | Gupta 2021; de Bortoli | Maroto 2001; Komorowska | Stanulewicz 2018; Kul'pina 2001; Madden | Hewett | Roth 2000; Scherpenberg 2014, 92; Šuchová 2014, 52; Vitols | Arhipova | Hirata et al. 2015; Wierzbicka 2010; Witek 2014, 76; etc.).

This study is based on the theory of linguistic relativity, according to which the semantic systems of different languages and dialects represent reality differently, as a result of which the worldviews that can be reconstructed on the basis of language data differ to a greater or lesser extent in certain aspects. The article aims to present how linguistic relativity is realized in the area of specific colour designations, in particular the colour brown. The object of the study are Kazakh linguistic expressions, including the adjective *ḳonyr* 'brown'. The study was prompted by an observation of the compatibility of this word: expressions in the Kazakh language, including this adjective, differ from the use of the corresponding lexemes in European languages. The strength of these differences will be demonstrated by comparing the constructions from Kazakh and Polish. The language material was taken from publicly available texts, as well as from online corpora of the two languages.[11]

1. Environmental determinism

Linguistic signs are secondary representations, i.e. forms of expression of mental representations, and the semantic system of a language reflects the practical and spiritual experience of the members within a specific cultural and linguistic community. Since the living circumstances and existential conditions of social groups, as well as their cognitive systems, dissent in certain aspects, corresponding disparities are likewise observed in the semantic systems of various languages. There are four factors determining the content of linguo-mental representations (Kiklewicz 2020, 325): 1) physical – the material environment of an individual and their practical activities; 2) biological – perception; 3) social – social relations, contexts and institutions, as well as discourses of interpersonal and public communication; 4) linguistic – the language system.[12] The existence of a range of factors explains

[11] The Kazakh Corpus: https://qazcorpus.kz/find; The Polish Corpus: https://nkjp.pl.

[12] E. Sapir (1993, 227) wrote about the heuristic function of language, the forms of which predetermine the ways of perceiving and interpreting reality for its users. The influence of language on mental representations is manifested, in particular, in the fact that in some situations the meaning is formed taking into account the possibilities of its linguistic expression – cf. Thinking-for-Speaking (TFS)-hypothesis (Slobin 1987, 485; Brugger 2018, 8), and the formal relations between signs are reflected in the relations between the expressed concepts. It has been experimentally proven

the complexity of the relationship between language, cognition, culture, and material reality, and why it receives various and often contradictory interpretations. The most fundamental opposition is between realism (externalism) and constructivism (internalism). The former term is based on the theoretical assumption that mental representations – in accordance with the principle of adaptation – reflect objects, relations between objects, and states of affairs in the external world; whereas the latter, in the case of constructivism, mental representations depend on subjective assumptions, attitudes and cognitive styles characteristic of each social group, as well as the social conditions of cognitive and linguistic activities (Barnes | Bloor | Henry 1996, 87; Beutinger-Menzen 2006, 131; Muszyński 1996, 34; Zimmermann 2006, 269).

In modern cultural anthropology (as well as in anthropological linguistics), it is widely accepted that each social group and social context cultivates a corresponding cognitive system and habitus – a predisposition to a certain type of mental reflections, emotional reactions and actions which is unique to this community (see Bourdieu 1974, 46; Chruszczewski 2011, 227; Duranti 1999, 44). The concept of the social distribution of knowledge was presented by M. Scheler (1926, 61 ff.) in the first half of the 20th century.

The opposition of realism and constructivism is, by nature, relative. Collective concepts and stereotypical beliefs, as well as the corresponding linguistic representations, are formed under the influence of internal and external factors, so there is a limited rationale to consider them as definitive or principal. In recent studies, the socio-cultural factor is generally perceived as dominant,[13] nonetheless, it should be noted that the social system, as well as the system of cultural institutions, to a certain extent are formed under the influence of the external environment. This is of particular importance in the investigation of cultural and ethnic specificity of colour designations, the application of which, as has been outlined, is significantly determined by the subject reference of colour attributes: the proposed hypothesis, in general terms, is that the reference characteristics of colour designations are largely determined by the surrounding physical environment and material culture.

This hypothesis is based on the theoretical framework of environmental determinism, which states that various forms of human social life, as well as their worldview, arise, change, and function subject to the influence of the surrounding material and natural environment (see Buchanan 1954, 8; Diamond 1999, 405; Lewthwaite 1966, 3; Wagner 1977, 62). People living in mountainous regions are more divided, which limits cultural borrowings and promotes individualization. It is not coincidental that, for example, in Slovenia, with a population of approximately

(Kiklewicz 2012, 265 ff.) that the lexical or phrasal format of a linguistic sign affects the nature of the expressed semantic information significantly.

[13] M. A. K. Halliday (2002, 201) considers the social factor to be the main one in the process of forming and functioning of the semantic, ideational system of language.

2 million people, there are about 50 dialects of the Slovenian language, whereas in Poland, there are 6-7 dialects due to the predominance of flat terrains. Desert territories are sparsely populated, which promotes a nomadic way of life, while river valleys in the past were home to people who led a settlement lifestyle and were engaged in agriculture.

The idea of natural determinism originated in ancient philosophy. In 1748, in the work *The Spirit of Law*, Montesquieu argued that the regulation of legal relations in society should take into account not only social but also environmental conditions, especially the climate and landscape. The ideas of natural determinism were facilitated by the publications of F. Ratzel, L. Febvre, A. Hettner, E. C. Semple and others in the 19th century (for more details, see Alexander 1999, 196 ff.). Later, within the framework of natural determinism, individual sociological, psychological, evolutionary and other concepts were developed (see Edelman 1989; Gibson 1979; von Uexküll 1949 | 1982; Zlatev 2003 etc.). One of the directions of natural determinism is possibilism, i.e. a theoretical framework according to which physical factors that influence collective consciousness and culture are not absolute – they act in conjunction with other factors of a psychological and ergonomic nature. The biocultural theory of meaning "Meaning = Life (+ Culture)" by J. Zlatev (2003) has such a compromise character.

Elements of the environment have a certain meaning for an organism, due to which they become objects of conceptualization and linguistic nomination. Zlatev's definition of meaning has a generalized form: "Meaning (M) is the relation between an organism (O) and its physical and cultural environment (E), determined by the value (V) of E for O: M = V (O, E)" (ibidem, 258 ff.), while the value depends both on the organism (for example, on the type of its activity and internal predispositions) and on the environment. Basing on the configuration of natural and cultural factors, four types of meaning systems are distinguished: cue-based, associational, mimetic and symbolic.

Contrastive anthropology studies consider the physical conditions that have formed the cultural systems of different people, such as those in Europe and Asia. Such differences are more local in nature. For example, as W. B. Meyer (2020, 175 ff.) notes, rice-growing populations in China are characterized by greater interdependence, group conformism, and conservatism than wheat-growing communities. This difference is due to the greater labour intensity of rice cultivation, and thus there is a greater need for coordination of actions, production planning, and even places of residence.

The influence of landscape manifests itself in individual worldviews (Scherp | Jain 2009, 18): the human mind interprets and classifies elements in a person's

natural environment, thus knowledge is contingent upon the environment.[14] This is especially important for the type of knowledge that B. Russell (1912, 48) defined as knowledge by acquaintance, i.e. formulated from sensory perceptions. In light of this, V. Podoroga (2013, 26 ff.) examines landscape practices in philosophy, i.e. how the landscape influences the view of reality. Every thought, Podoroga asserts, is topological in nature. For example, with regard to M. Heidegger, such a topological factor was the dark and mysterious forests of Schwarzwald.

The economic system and interpersonal relationships are shaped by the landscape and climate, therefore, the natural factor influences a culture and a cultural worldview both directly and indirectly. This is the concept of economic determinism (Berger | Luckmann 1991, 18).

The theory of natural determinism, unfortunately, has its ideological and political facets. Over different periods, substantial evidence has been accumulated due to "natural" environmental factors, Western Europe became the dominant power, colonizing and exploiting much of the rest of the world (Diamond 1999, 14; Moczulski 2019, 40 ff.). Thus, natural determinism served as a rationale for some scientists and politicians in support of the claim that the existing inequality in the world and the colonial policies of Western European states are objective in nature (Semple 1911; 1933). In the second half of the twentieth century, when the world order changed and the ideas of social relativism and multiculturalism became widespread, the interest in this direction declined and, on the contrary, the interest in constructivism increased significantly (see Romer 2022).

E. Rybicka (2014, 10) writes about geopoetics, whose subject is a reflection in literary works on the geographical space within which the author is positioned. The interpretation of artistic texts is based on the knowledge that readers have formed in certain geophysical conditions.

Natural determinism is also reflected in language. A. S. Gerd (2005, 60) writes, people living in desert and semi-desert zones have a completely different type of knowledge about the landscape and climate than populations residing in the taiga and forest-tundra. These differences are objective in nature, as they are determined by the physical habitats of human communities. Gerd further notes that the natural factor, as well as the type of household, is primarily manifested

[14] There is a legend about mathematical wallpaper, which fostered Sofia Kovalevsky's interest in mathematics in her childhood. During the renovation of the manor house where the Kovalevskys lived, too little wallpaper was ordered, so it was decided to cover the walls of the children's room with papers found in the attic. By a fortunate coincidence, these materials were lithographs from the script of lectures on differential and integral calculus, by one of the founders of the St. Petersburg school of mathematics. Sofia would spend whole days looking at the mysterious formulas and, willing to understand them, she overwhelmed her mentor Joseph Malevich with mathematical questions. The girl secretly began studying algebra in order to understand what the mysterious patterns on the wallpaper meant (Wiedza i Życie 2011 | 4).

in the vocabulary: communities engaged in hunting and gathering have a developed vocabulary of plant and animal names.

The Eskimo language is often cited to confirm this pattern; according to various sources, it has from 6 to 50 names for snow (Boas 1963; Martin 1986; Robson 2012; Whorf 1940). In 1984, the New York Times published an article reporting on 100 names for different types of snow in the Eskimo language. This phenomenon is also observed among other northern populations. For example, R. P. Kuzmina (2018, 306) writes about the diverse names for types of snow in the northern dialects of the Evenki language. According to available data,[15] there are 45 names for snow in the Pomor dialect of Russian (whose speakers live on the Kola Peninsula). According to published data (Fedjuniova | Ajbabina 2016, 7 ff.), the language of the Komi, another northern people, has 22 names for snow.

It should be noted that natural determinism is not the only or absolute factor forming the nature of the lexical composition of a language. For example, A. Pavlova (2017, 147) notes that snow is as natural element of the physical environment for Russians as it is for Eskimos, however, in Russian, there are no special names for light snow, wet snow, first snow, dry snow, sticky snow, etc.

It is not feasible to provide a clear elucidation for phenomena such as connotation or polysemy with external factors. For example, the English word *pink* is associated with youth and youth culture, while the German adjective *rose* does not have such a connotation. In this regard, C. van Scherpenberg (2014, 92) states that this variation is challenging to interpret with variations between English and German culture. Similarly, Belyanin (2016, 236) points out that the Russian *сильный дождь* 'strong rain' corresponds to *heavy rain* in English. In this context, it is similarly complex to provide a definite characteristic of the national consciousness of Russians and English people, as well as which natural and physical factors underlie this discrepancy. Pavlova (2017, 146) highlights that Russian women wear high-heeled shoes more often than German women, but there is a German verb *stöckeln*, which means 'to wear high heels', while there is no such a verb in Russian. This feature of linguistic nomination likewise relates to colour designations (Ten 2007, 42; Tokarski 2004, 26). Therefore, J. Šuchová (2014, 52) declares that, in German, the verb *grauen* has the primary meaning of 'to become gray', as well as the secondary meaning of 'to be afraid', cf.:

(8) Mir graut es schon beim Gedanken daran.
'Just thinking about it makes me feel afraid'.

The cited researcher asserts that this polysemy is complex to clarify by mentioning typical gray colour references.

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15 https://l-s.media/culture/kak-govoryat-na-kolskom-poluostrove (accessed: 28.04.2024).

2. Environmental determinism in the field of colour names

A prevailing tendency is noted in the area of colour designations discovered through research in cognitive linguistics: if a particular characteristic or feature is abundant in the physical environment of language speakers, it may be reflected in the language they use. This is reflected in such characteristics of lexical units as a high frequency of use and intensive polysemy, including phraseological units (Komorowska 2018, 87; Szczęk 2013, 283 ff.). Therefore, visual perception data are more important for a person than tactile perception data. For this reason, the dimensions of objects are considered greater rather than their texture. This explains that in English the polysemy of the adjectives *high, low* and the adjectives *rough, smooth* differs significantly:[16]

adjective	number of meanings	number of idioms
high	15	16
low	15	5
rough	9	5
smooth	7	1

The concept by which this additional information (i.e. connotations and metaphorical meanings) is generated aligns with the definition of abductive syllogism acknowledged in literature (Bateson | Bateson 1988, 26). Its application can be clarified as follows:

(9) The sun is yellow.
The sun emits light, warmth, it is auspicious.
Conclusion: Yellow is warm, positive.[17]

The symbolism of colour designations arises in light of this conceptualization (inherently naive) (see Gage 1999). To a great extent, it is subject to background knowledge: firstly, about typical carriers of a particular colour feature ('the sun is yellow'), and secondly, about other characteristic properties of carrier objects ('the sun is good'). It is important that both the first and second pieces of information are specific from a national-cultural point of view, which is associated with the difference in connotations and metaphorical meanings of the same colour designations in different languages. In the following sections, this will be illustrated through the designations of the colour brown in Kazakh and Polish.

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16 https://www.oxfordlearnersdictionaries.com (accessed: 30.04.2024).

17 The symbolism of some colours in Vietnam was formed in a similar way. As V. G. Kul'pina (2001, 37) writes, blue symbolises the working class – by the colour of their clothes, and brown is associated with those working the land.

2.1. The names of the brown colour: meaning and connotations

In the concept of B. Berlin and P. Kay (1969), the colour brown is one of the basic colour designations and is noted as the sixth stage of the evolution of languages and cultures (after black, white, red, green, yellow and blue).[18] The semantic representation of the colour brown is based on the idea of prototypical object references, as detailed in the works of A. Wierzbicka (2010, 364 ff.). As posited, the colour brown is not perceived as a mixture of several colours (green, red, black, etc.), it has an independent meaning and its source lies in the natural environment. Wierzbicka defines the meaning of the adjective *brown* in English as follows:

> X is brown
> when someone sees things like X, they may think of earth (ground)
> over a period of time, people can see very little
> when someone sees things like X, they may think about it

This definition is based on the premise that the 'bare earth' is an important visual and existential reference point (ibidem, 366).

There is, however, a number of data that undermine the accuracy of the provided definition. Firstly, brown is not a distinctive feature of soil, it is not included in lexical definitions of the corresponding word, nor in dictionaries of associative norms. For example, in an associative dictionary of English[19] neither *soil* nor *earth* are reported within the context of associations of both the noun and adjective *brown*. And vice versa, *brown* is not found among the noun associations of *soil* or *earth*.

Secondly, there are many different shades of the soil colour, which is reflected in some definitions, cf.: *soil* 'the upper layer of earth in which plants grow, a black or dark brown material typically consisting of a mixture of organic remains, clay, and rock particles'.[20] The bagged soil that can be purchased on the market is quite rarely brown, only if it contains a large amount of peat.

Thirdly, there are several typical (and even more prevalent than soil) subject references of the brown colour: coffee beans, cocoa, chocolate, tree bark, nut shells, chestnuts,[21] human and some animal feces, the colour of some animals (for example, horses), leather items, etc. This can be verified by using special online software that allows to determine the colour parameters of objects.[22]

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18 Brown precedes purple, pink, orange and gray.

19 https://wordassociations.net/en (accessed: 10.02.2024).

20 https://www.dictio.info/en/show/4629 (accessed: 27.04.2024).

21 In Italian, the names for the brown colour marrone and castagno originate from the name of the chestnut tree.

22 https://imagecolorpicker.com (accessed: 28.03.2024).
https://www.ginifab.com/feeds/pms/recognize_color_from_image.php (accessed: 28.03.2024).
https://htmlcolorcodes.com/colors/bronze (accessed: 28.03.2024).

Some object associations have a specific character and are rooted in the past, for example, the English expression

(10) brown as a berry

In Modern English, the phrase is used to refer to people with dark or tanned skin. It originated in 17th-century England, when tanned or dark skin was associated with outdoor work and physical labour. Since ripe berries are often close to brown in colour, the description of a person whose skin has darkened from exposure to the sun is based on an analogy.[23]

Tokarski (2004, 140 ff.) states that in Polish culture the colour brown has no association with the earth – there is no connection between the former and the latter either in metaphors or in phraseology (cf. the Polish expressions *czarnoziem*, *czarny jak świeża ziemia*). According to Tokarski's observations, linguistic uses of the Polish adjective *brązowy* 'brown' rather point to an association with the autumn and the dying nature. In addition, Tokarski (ibidem, 142) asserts that the formal relationship between the derivational noun *brąz* (the name of a metal) and the derived adjective *brązowy* is not reflected in the semantics: there is no sense of semantic closeness between the former and the latter.

According to a survey of native Polish speakers conducted by E. Komorowska and D. Stanulewicz (2018, 107), the prototypical referent of brown is a tree bark,[24] with soil being the second most common referent. The subject references of colour designations can be determined based on the phrase scheme "Adj (colour name) + like | as". Thus, the most common constructions in the Google search engine in Polish are:

(11) brązowy jak czekolada 'brown like chocolate'
(12) brązowy jak drzewo 'brown like a tree'
(13) brązowy jak kasztany 'brown like chestnuts'
(14) brązowy jak kawa 'brown like coffee'
(15) brązowy jak błoto 'brown like mud'
(16) brązowy jak orzech 'brown like a nut'

Similar constructions are identified in other languages.

[23] https://dictionary.langeek.co/en/word/212260?entry=brown%20as%20a%20berry (accessed: 28.04.2024).

[24] In Russian, the adjective brown derives from the noun bark, cinnamon 'rind, bark' (Vasilevič 2007, 13).

2.2. Polish *brązowy*

The adjective *brązowy* in Polish is defined as follows:

> having the colour of a nut shell, similar to dark brown in colour (WSJP)
> having the colour of bronze – alloy (USJP)
> if something is brown, it has the colour of tree trunks, earth and chestnuts (ISJP)

The evidence suggests that there is a lack of unity in the authors of Polish dictionaries in relation to the common carrier of this colour attribute.

The polysemy of this word is not developed: dictionaries note its second meaning as 'made of bronze, related to bronze'. As previously noted, there is no semantic connection between the derivational base and the derivative: bronze items are not typical carriers of the brown colour: the surface colour of bronze items can vary from red to gray or even black, and over time such items become dark green. In addition, bronze items (including bronze medals) are not common household items.

In Polish, the adjective *brązowy*, furthermore, includes a small number of connotations. Tokarski (2004, 143) points out that this colour is associated with sadness in poetry and is recognized as unattractive. E. Komorowska and D. Stanulewicz (2018, 107) report in the survey mentioned above that the name of the colour brown is neutral from an axiological point of view: survey respondents indicated approximately the same number of positive and negative associations.

Using the *Collocations* resource in the National Corpus of the Polish Language, the compatibility of this adjective with nouns was analyzed. In total, this database contains 42 collocates that differ in the frequency of their use. Here are the most frequent combinations:

(17) brązowe włosy – 117
(18) brązowe oczy – 101
(19) brązowy kolor – 43
(20) brązowa skóra – 27
(21) brązowa plama – 24
(22) brązowy liść – 21
(23) brązowa barwa – 18
(24) brązowa suknia – 15

Among the collocations, there is practically none that would contain additional connotative semantics. This means that brown in Polish culture does not belong to the so-called precedent phenomena, and the adjective *brązowy* in Polish does not have a rich lexical background.

2.3. Kazakh *ḳonyr*

The representation is notably different in the Kazakh language, the content of which supports the theoretical viewpoint (see Blagova 1999, 85; Komorowska 2018, 97) according to which linguistic metaphors reflect the life patterns of a designated cultural and linguistic community. In the case of Kazakhstan, there are a significant number of precedent phenomena for which the brown colour is an essential organic feature. First of all, this is the bay colour of horses, which were traditionally recognized as the primary animal in the cultural and everyday environment of the Kazakh people, and which numbered in thousands (Stefaniak-Rak 2015, 164). It should be noted that horses are used as food in Kazakhstan: horse meat sausage *kazy* is a characteristic element of Kazakh cuisine. In addition, leather goods, widely used in everyday life, as well as musical instruments, are brown in colour: dombra, dabyl, kobyz, sherter, asatayak, etc. The landscape also plays an important role: the Kazakh steppes, as well as the Tien Shan and Altai mountains are of different shades of brown, which can be seen in Fig. 1.

Such a large number of significant precedent phenomena of the brown colour in the material and the physical environment and everyday life of the Kazakh people are reflected in the spiritual culture, in particular, in the symbolism characteristic of the Kazakh cultural worldview. On the basis of linguistic, ethnographic and folklore data, B. Khassenov, A. Adilova and Z. Rapisheva (2022, 1757) claim that ancient Turks associated the names of colours with the four cardinal directions: blue symbolized the east, red – the south, yellow-white – the west, and black – the north. At the same time, brown was considered a symbol of the centre of the world.

The precedent character of brown objects is reflected in the language: unlike European languages, in Kazakh, the adjective *ḳonyr* is characterized by a developed polysemy (Khassenov | Adilova | Rapisheva 2022, 1759; Kononov 1975). Thus, *The Dictionary of the Kazakh Literary Language* (Malbakov | Ongarbaeva | Uderbaev 2009) provides four meanings of this word:

> *brown* 1. A dark brown colour between black and red, for example: *қоңыр ат, сиыр, қаз* ‘a brown horse, cow, goose’. 2. Ordinary, poor (life, home), for example: *Отан соғысының соңғы жылдарындағы бір күн болатын.* ‘The period of the post-war, disastrous life of a country’, literally: ‘These were the last days of the Patriotic War. The period of the country’s brown life’. 3. Pleasant, refreshing, for example: *қоңыр сол шақ өмірлері* ‘pleasant memories of youth’, literally: ‘brown memories of youth’. 4. Reluctant, sad, cold (attitude, character), for example: *Қару-жарақты, әскери киімді екі адамды көргенде Таусоғар сыр бермегенсіп, қоңыр амандасты* ‘Seeing two people with weapons and in military uniforms, Tausogar, without showing it, greeted them coldly.’ Literally: ‘Seeing two people with weapons and in military uniform, Tausogar, without showing it, greeted them brownly’.

Fig. 1. A typical steppe landscape for Kazakhstan,
[w:] https://www.facebook.com/
photo/?fbid=447903127365637&set=pb.100064378615770.2207520000&locale=hr_HR

U. Sarmanbetova and R. Mandal write about the symbolism of the brown colour and its lexical exponents in the Kazakh language:

> The brown color represents silence, comfort, warmth and safeness for Kazakhs. The component of the brown color is associated with other words and turns into a stable phrase word. The brown color signifies the meaning of "neutral". For example, velvet (brown) evening, it is a touch of velvet evening, soft (brown) autumn, velvet (brown) voice, here it means soft voice, soft – spoken voice and etc. (2019, 105).

The secondary uses of the adjective *ḳonyr* are related to evaluative semantics, although, from this point of view, they are ambivalent: *ḳonyr* is used to express positive, negative and neutral evaluations. Constructions of all the three types are presented in the *National Corpus of the Kazakh Language*. Here are some examples:

neutral evaluation

(25) қоңыр тіршілік 'everyday life'
(26) қоңыр күздің 'a normal autumn'
(27) қоңыр қазақ 'ordinary, run-of-the-mill Kazakh'

positive evaluation

(28) қоңыр дауыс ‘a pleasant (low) voice’[25]
(29) қоңыр тірлік ‘nice, good life’
(30) қоңыр жел | самал ‘a pleasant breeze’
(31) қоңыр ән ‘a nice sound’
(32) қоңыр мінез ‘a calm character’
(33) қоңыр момақан ‘a calm, nice person’
(34) қоңыр әуен ‘a nice melody’
(35) қоңыр өлең ‘a beautiful poem’
(36) қоңыр түн ‘a warm night’
(37) қоңыр қыз ‘a beautiful girl’
(38) қоңыр жауын ‘light rain’
(39) қоңыр әңгіме ‘a pleasant, calm conversation’

negative evaluation

(40) қоңыр күз ‘a cold, gloomy autumn’
(41) қоңыр салқын ‘cold, bad weather’
(42) қоңыр салқын қабақ ‘an offended cold face’
(43) қоңыр жаз ‘a cool summer’
(44) қоңыр кеш ‘a gloomy evening’
(45) қоңырқай көңіл күйі ‘a depressed mood’
(46) қоңыр аспан ‘a cloudy sky’
(47) қоңыр мұң ‘painful thoughts’
(48) қоңыр бақ ‘a bare garden, without leaves’
(49) қоңыр ауыл ‘a poor village’
(50) қоңыр шаруа ‘a beggarly economy’
(51) қоңыр күймен ‘a gloomy mood’

Khassenov and Adilova (2012, 10) indicate that the sheep, which Kazakhs consider as brown, is a symbol of meekness and simplicity – thus the brown colour has received the same positive symbolism, cf. the phraseological unit:

(52) қойдан қоңыр ‘meek, calm’, literally: ‘browner than a lamb’

The adjective *ḳonyr* expresses a positive assessment in phraseological units referring to children:

(53) менің қоңырым ‘my darling’ (addressing a child), literally: ‘my brown’
(54) қоңыр қозым ‘my darling’ (addressing a child), literally: ‘my brown lamb’

[25] Previously, this expression meant ‘a hoarse voice’, see https://kk.wikipedia.org/wiki/Қоңыр_дауыс (accessed: 02.05.2024).

In this meaning, this adjective is used in a Kazakh folk song:

(55) Қой сүйеді баласын «қоңырым» деп,
«Ештеңе білмейтін момыным» деп.
Literally:
A sheep kisses lamb calling it: “my brown”:
“You are still small, meek, and know nothing”.

The same objective reference (i.e. reference to a sheep) underlies the expression sheep’s eyes, which means brown eyes.

The semantic ambivalence (a sort of ambisemy) of the adjective *ḳonyr* is possible due to the mechanism that regulates the use of this word in one of the evaluative meanings: the recipient of the message must have an algorithm that allows one to understand, for example, the expression *ḳonyr kyz* as ‘a brown girl (i.e. with a dark skin)’, or as ‘a beautiful, meek girl’, or as ‘a sad, cold girl’. Firstly, as was indicated in the Introduction, the interpretation of the adjective depends on the supporting noun. In this case, the compatibility of the adjective and noun has a related character, and constructions *ḳonyr* + N, in which the adjective has a derivative meaning (for example, *ḳonyr dauys* ‘a brown=pleasant voice’, *ḳonyr kyjmen* ‘a brown=gloomy mood’) should be treated as collocations.

Secondly, the interpretation of the adjective depends on the broader context. For example, a title on an Internet information portal:[26]

(56) Қазақстандық «қоңыр қыз» әлем чемпионы атанды.
‘Kazakhstani *brown girl* has become a world champion’.

The expression meaning a *brown girl* may seem vague here, but in the journal publication it is about a black Kazakh athlete, Nora Jeruto, who was born in Kenya. According to this information, the headline will receive the following interpretation: ‘A brown (i.e. dark-skinned) girl from Kazakhstan who has become a world champion’.

Thirdly, this case can be interpreted as an example of enantosemy, i.e. an expression of two opposite meanings by the same lexeme. Thus, the adjective *green* has, on the one hand, a positive secondary meaning of ‘unaltered by time or natural processes; fresh, new’, on the other hand, a negative meaning of ‘of a thing, esp. something immaterial, such as a thought, plan, etc.: not fully developed or elaborated’.

Without a doubt, there are lexemes with a direct (and not metaphorical) evaluative meaning in the Kazakh language, for example:

[26] https://atpress.kz/kk/news/qazaqstanda/qazaqstandyq-qonhyr-qyz-alem-chempiony-atandy (accessed: 03.05.2024).

(57) жағымды дауыс ‘a pleasant voice’
(58) әдемі қыз ‘a beautiful girl’
(59) жағымды әуен ‘a pleasant melody’

However, the adjective *ķonyr* is used in speech frequently as an evaluative word. For example, the most common adjectives of the Kazakh language have been listed in one of the linguistic resources on the Internet.[27] Among them, there is the word *ķonyr*, but the evaluative adjectives are not presented as *pleasant* and *beautiful*. Perhaps, this is explained by the associations of colour designations with a sensory processing of information, and therefore, the imagination of the addressee is activated and a stimulating function is additionally performed.

It is not by chance that the word *ķonyr* functions as one of the most important symbols in literature and painting. It can be exemplified with two literary pieces. One of them is a poem by Zharkyn Asanqadyr uly called *Ķonyr olen qoynynda* ‘In the Heart of a Pleasant Song’ (literally ‘In the Heart of a Brown Poem’), which consists entirely of metaphorical expressions that include the adjective *ķonyr*. Below is a fragment with its literal translation into English:

(60) Қоңыр таудың қойнындамын,
Қоңыр күзден нұр алам.
Қоңыр кеште мойнымды мың,
Қоңыр самал сылаған.
Қоңыр дала қасиетің,
Қоңыр әннен басталған.
Қоңыр бала бас иетін,
Қоңыр – дала тастардан.
Қоңыр сағым жосыларсың,
Қоңыр қопа күндерден.
Қоңыр үнім тосыласың,
Қоңыр жүрек кімдерден.
Қоңыр көзім жанарыңда,
Қоңыр мұң бар сияқты.
Қоңыр аспан, таза арыңды.
Қоңыр тамшы жіиі ақты. [...]

I am in the heart of the brown mountain,
I get light from the brown autumn.
In the brown evening, kiss my neck,
A brown breeze blew.
The virtue of the brown steppe,
started with a brown song.

27 https://kazyaz.kz/slovar.php (accessed: 03.05.2024).

The brown boy bows,
to the brown – field stones.
Brown mirage appears,
From brown reed days.
My brown voice paused,
From whom is the brown heart.
In the sparkle of my brown eyes,
There seems to be a brown sadness.
Brown sky, pure honour.
A brown drop often flew. [...]

Another example is a poem by Kasymkhan Begmanov called *Қонyr* – it is entirely constituted of expressions that include this colour designation. Below is a fragment of the poem:

(61) Қоңыр ұл ем, қоңыр үйде ержеткен,
Қоңыр ырғақ жүрегімді тербеткен.
Баурап алған қоңыр кештер, қоңыр мұң,
Қоңыр болмай бұл өлке де оңар кім.
Етегінде гүл теретін қоңыр қыз,
Қалды артымда қоңыр ауыл, қоңыр күз.
Түсіме еніп қоңыр күз бен қоңыр қыз,
Өмір өтті сол бір қоңыр өңірсіз,
Сырқыратты сай-сүйекті қоңыр сыз,
Өмір өтті қоңыр қызсыз – көңілсіз.
Қоңыр жолдар алып кетті жыраққа,
Жауап бермей мұңлы қоңыр сұраққа.
Үнсіз қарап аққан қоңыр бұлаққа,
Қоңыр кеште қоңырайсам... жұбат па.
Қоңыр өлең, қоңыр ауыл, қоңыр ән,
Қоңыр бала табиғатын қорыған.
Қарапайым қоңыр ақын үлгі боп,
Салқын самал көзін сүрткен сүлгі боп.
Қарай- қарай кеткен қоңыр далаға,
Қоңыр таулы сол бір қоңыр қалаға. [...]

I was a brown boy, I grew up in a brown house,
and my heart was moved by a brown rhythm.
Captivated by brown evenings, brown sadness,
who can live in this land without becoming brown.
A brown girl picking flowers in her skirt,
A brown village, a brown autumn remained behind me.
A brown autumn and a brown girl appeared in my dream,
Life passed without that one brown region,

A crackling ravine-bony brown cold,
Life passed without a brown girl – sadness.
Brown roads took me far away,
without answering to a sad brown question.
Silently looking at the flowing brown spring,
If I turn brown in the dark evening...do not comfort
A brown poem, a brown village, a brown song,
and a brown boy who protected his nature.
A simple brown poet is a role model,
and a cool breeze is a towel that wipes his eyes.
Passed by while observing the brown steppe,
to the same brown city with brown mountains. [...]

Conclusion

The article has revealed how natural determinism is manifested in linguistic consciousness and speech activity. The analysis was based on the premise that differences in the landscape and climate, as the most important elements of the physical environment of human societies, in/directly affect not only the material culture, such as the basic needs and the corresponding system of production (in particular, household culture), but the worldview characteristic of each cultural and linguistic community, as well as the system of institutions regulating public relations. Studies in the field of linguistic relativity have shown that the physical environment of people's live activities is reflected in the lexicon: the lexical nomination – in accordance with the principle of adaptation – primarily covers the subject areas that are considered the most significant for this group from the point of view of perception (primarily visual) and practical activity (see Gonigroszek 2012, 29).

The starting point for the research was the external natural life conditions of Kazakhs and Europeans, which differ significantly, and this, in particular, concerns the precedent phenomena of the brown colour. In the case of Kazakhstan, it is a chestnut mast of horses, leather goods, musical instruments, steppes and mountain ranges of the Altai and Tien-Shan mountains. Since the objects of the brown colour play a particularly important role in the material culture of Kazakhs, this colour is a subject to reinterpretation, and it acquires a symbolic status. In the language, this is reflected in the high frequency of word use, as well as in its intensive polysemy: the adjective brown, in addition to its primary meaning, is widely used to express evaluations that vary depending on the base noun: *a brown sound, voice, melody* means pleasant, beautiful; *brown weather, wind, rain* – pleasant, neither too cold nor too bright; *a brown character* – a balanced character; *brown eyes, hair* – beautiful eyes, hair; *a brown girl* or *boy* – a not arrogant, modest,

meek and attractive girl or boy; *a brown mood* – depression, sadness; *brown clay, mud* – dirt; *a brown steppe* – a wide steppe; *a brown house, village, community* – simplicity, poverty; *a brown child* – cute, favourite, etc. Most of such expressions have a repeated, regular character, and, since the semantic interpretation of the derivative meaning of the adjective depends on the base noun, these Kazakh word combinations belong to the category of collocations.

In terms of semantics and frequency, the Kazakh adjective is fundamentally different from its Polish counterpart. In Polish, the brown colour does not have such a large number of symbolic associations, and, among the existing ones, those with old age, sadness, and ugliness dominate.

Regardless of the fact that natural determinism has been repeatedly criticized, in particular, for ideological and political reasons, the linguistic data presented in the article demonstrate that this factor, along with others – cultural, social, biological and linguistic, is of crucial significance in the formation of the cultural worldview and the semantic system the language.

References

Alexander, D. E. (1999), Environmental determinism, [in:] Alexander, D. E. (ed.), Environmental Geology. Dordrecht, 196-197.

Ampel-Rudolf, M. (1994), Kolory. Z badań leksykalnych i składniowo-semantycznych języka polskiego. Rzeszów.

Barnes, B. | Bloor, D. | Henry, J. (1996), Scientific Knowledge. A Sociological Analysis. London.

Bateson, G. | Bateson, M. C. (1988), Angels fear: an investigation into the nature and meaning of the sacred. London.

Belyanin, V. P. (2016), Psicholingvistika. Moskva. [Белянин, В. П. (2016), Психолингвистика. Москва.]

Berlin, B. | Kay, P. (1969), Basic color terms. Their universality and evolution. Berkeley | Los Angeles.

Berger, P. L. | Luckmann, T. (1966), The Social Construction of Reality: A Treatise in the Sociology of Knowledge. London.

Beutinger-Menzen, B. (2006), Fiktionen des Wirklichen. Eine soziologische Auseinandersetzung mit den Positionen des Radikalen Konstruktivismus. Hamburg.

Blagova, G. F. (1999), Vremja i prostranstvo: narodnye sposoby vyraženija v tjurskich jazykach, [in:] Rocznik Orientalistyczny LII (2), 79-92.

Boas, F. (1963), Introduction to the handbook of American Indian languages. Washington.

Bourdieu, P. (1974), Zur Soziologie der symbolischen Formen. Frankfurt am Main.

Bradfield, E. L. (2014), The Diversity of Color: an Analysis of Cross-cultural Color Symbolism. Honors Theses. 90. URL: https://digitalcommons.andrews.edu/cgi/viewcontent.cgi?article=1089&context=honors

Brugger, L. (2019), Cross-linguistic influence in bilingual motion event encoding: The role of language dominance and language mode. Freiburg.

Buchanan, K. (1954), Geography and Human Affairs. Wellington.

Chaudhary, S. | Dutt, S. | Gupta, V. (2021), Colour symbolism across cultures: a dichotomy between German and Indian contexts, [in:] International Journal of Social Science and Economic Research 6 (5), 1545-1580.

Coleman, L. | Kay, P. (1981), Prototype semantics: The English word 'lie', [in:] Language 57 (1), 26-44.

De Bortoli, M. | Maroto, J. (2001), Translating colours in web site localization, [in:] Proceedings of the European Languages and the Implementation of Communication and Information Technologies (Elicit) conference. Paisley.

Diamond, J. (1999), Guns, germs, and steel: the fates of human societies. New York.

Dosmuchamedova, K. (1976), Peredača cvetovych značenij prilagatel'nych v russko-kazachskim slovare, [in:] Izvestija AN Kazachskoj SSR. Serija "Filologija" 4, 28-35. [Досмухамедова, К. (1976), Передача цветовых значений прилагательных в русско-казахском словаре, [in:] Известия АН Казахской ССР. Серия «Филология» 4, 28-35.]

Edelman, G. (1989), The Remembered Present. A Biological Theory of Consciousness. New York.

Faryno, J. (1999), Gwiazda, [in:] Lazari, A. de (red.), Idee w Rosji. Leksykon rosyjsko-polsko-angielski. Łódź, 154-159.

Fedjuniova, G. F. | Ajbabina, E. A. (2016), O proischoždenii nekotorych nazvanij snega v komi jazyke, [in:] Ežegodnik finno-ugorskich issledovanij 10 (4), 7-18. [Федюнова , Г. Ф. | Айбабина, У. А. (2016), О происхождении некоторых названий снега в коми языке, [in:] Ежегодник финно-угорских исследований 10 (4), 7-18.]

Gage, J.(1999), Color and meaning: Art, science, and symbolism. California.

Gerd, A. S. (2005), Vvedenie v ėtnolingvistiku. Sankt Petersburg. [Герд, А. С. (2005), Введение в этнолингвистику. Санкт-Петербург.]

Gibson, J. J. (1979), The Ecological Approach to Visual Perception. Boston.

Gonigroszek, D. (2012), Rozwój historyczny nazw kolorów w języku angielskim a teoria Berlina i Kaya, [in:] Językoznawstwo. Współczesne badania, problemy i analizy językoznawcze 6, 27-35.

Gumperz, J. J. | Levinson, S. C. (1996), Rethinking Linguistic Relativity, [in:] Gumperz, J. J. | Levinson, S. C. (eds.), Rethinking Linguistic Relativity. Cambridge, 232-270.

Halliday, M. A. K. (2002), Collected Works. Vol. 1: On Grammar. London | New York.

ISJP: Bańko, M. (red.) (2000), Inny słownik języka polskiego. T. 1-2. Warszawa.

Kay, P. | McDaniel, C. K. (1978): The linguistic significance of the meaning of basic color terms, [in:] Language 54 (3) 610-646.

Khassenov, B. R. | Adilova, A. S. (2012), Tur-tus ataularynyn šyguly turaly, [in:] Vestnik Karagandinskogo universiteta 4 (68), 5-10. [Хасенов, Б. Р. | Әділова, А. С. (2012), Түр-түс атауларының шығуы туралы, [in:] Вестник Карагандинского университета 4 (68), 5-10.]

Khassenov, B. | Adilova, A. | Rapisheva, Z, (2022), Colour Symbolism in Turkic Culture: A New Look in the Reconstruction of Colour Designation, [in:] Social Sciences & Humanities 30 (4), 1753-1766.

Kiklewicz, A. (2012), Znaczenie w języku – znaczenie w umyśle. Krytyczna analiza współczesnych teorii semantyki lingwistycznej. Olsztyn.

Kiklewicz, A. (2020), Imagologia a konstruktywizm, [in:] Przegląd Wschodnioeuropejski XI (2), 305-327.

Kojchubaev, E. (1974), Kratkij tolkovyj slovar' toponimov Kazachstana. Alma-Ata. [Койчубаев, Е. (1974), Краткий толковый словарь топонимов Казахстана. Алма-Ата.]

Komorowska, E. (2018), Barwa czarna w języku polskim i norweskim aspekt konfrontatywny, [in:] Komorowska, E. | Stanulewicz, D. (red.), Barwa w języku, literaturze i kulturze IX. Szczecin, 83-97.

Komorowska, E., | Stanulewicz, D. (2018), Polskie i rosyjskie słownictwo barw. Asocjacje i znaczenia. Szczecin.

Kononov, A. N. (1975), Semantika cvetooboznačenij v tjurskich jazykach. Tjurkologičeskij slovar'. Moskva. [Кононов, А. Н. (1975), Семантика цветообозначений в тюрских языках. Тюркологический словарь. Москва.]

Konyrov, T. K. (1985), Strukturno-semantičeskaja priroda sravnenia v kazachskom jazyke. Alma-Ata. [Коныров, Т. К. (1985), Структурно-семантическая природа сравнения в казахском языке. Алма-Ата.]

Košelev, A. D. (2019), O genezise myšlenija i jazyka. Moskva. [Кошелев, А. Д. (2019), О генезисе мышления и языка. Москва.]

Kul'pina, V. G. (2001), Lingvistika cveta. Terminy cveta v pol'skom i russkom jazykach. Moskva. [Кульпина, В. Г. (2001), Лингвистика цвета. Термины цвета в польском и русском языках. Москва.]

Kuzmina, R. P. (2018), Koncept "zima" v jazykovoj kartine mira evenov, [in:] Filologičeskie nauki. Voprosy teorii i praktyki 10 (2), 305-308. [Кузмина, Р. П. (2018), Концепт "зима" в языковой картине мира эвенков, [in:] Филологические науки. Вопросы теории и практики 10 (2), 305-308.]

Lewthwaite, G. R. (1966), Environmentalism and determinism: a search for clarification, [in:] Annals of the Association of American Geographers 56 (1), 1-24.

Lucy, J. (2000), Introductory comments, [in:] Niemeier, S. | Dirven, R. (eds.), Evidence for linguistic relativity. Amsterdam | Philadelphia, ix-xxi.

Madden, T. | Hewett, K. S. | Roth, M. (2000), Managing Images in Different Cultures: A Cross-National Study of Color, Meaning and Preferences, [in:] Journal of International Marketing 8 (4), 90-107.

Malbakov, M. | Ongarbaeva, N. | Uderbaev, A. (2009), Қазақ әдеби тілінің сөздігі. 10 (Қ-М). Almaty.

Martin, L. (1986), "Eskimo Words for Snow": A Case Study in the Genesis and Decay of an Anthropological Example, [in:] American Anthropologist, New Series 88 (2), 418-423.

Martinovic, J. | Paramei, G. V. | MacInnes, W. J. (2020), Russian blues reveal the limits of language influencing colour discrimination, [in:] Cognition 201, 104281. DOI: 10.1016/j.cognition.2020.104281

Matsumoto, D. | Juang, L. (2007), Psychologia międzykulturowa. Gdańsk.

Meyer, W. B. (2020), Environmental Determinism, [in:] Kobayashi, A. (ed.), International Encyclopedia of Human Geography (2nd ed.). Amsterdam, 175-181.

Mucha, P. (2014), Różne znaczenia kolorów, czyli o przykładach konotacji determinowanych płciowo, [in:] Językoznawstwo 1 (8), 47-61.

Müller, J. (2013), Die Farben des Koran. Semantik und Funktion der koranischen Farbbezeichnungen, [in:] Zeitschrift Der Deutschen Morgenländischen Gesellschaft 163 (1), 117-145.

Muszyński, Z. (1996), Światy za słowami. Ich natura i porządek, [in:] Grzegorczykowa, R. | Pajdzińska, A. (red.), Językowa kategoryzacja świata. Lublin, 27-45.

Pavlova, A. (2017), Rosyjska lingwokulturologia w ujęciu krytycznym, [in:] Kiklewicz, A. | Jurkowski, R. | Kasparek, N. (red.), Polska – Europa Wschodnia: wzajemne wpływy i relacje historyczno-kulturowe, literackie i językowe. Olsztyn, 141-156.

Podoroga, V. (2013), Metafizika landšafta. Kommunikativnye strategii v filosofskoj kul'ture XIX-XX vekov. Moskva. [Подорога, В. (2013), Метафизика ландшафта. Коммуникативные стратегии в философской культуре XIX-XX веков. Москва.]

Rachilina, E. V. (2007), O semantike prilagatel'nych cveta, [in:] Vasilevič, A. P. (ed.), Naimenovanija cveta v indoevropejskich jazykach. Sistemnyj i istoričeskij analiz. Moskva, 29-39. [Рахилина, Е. В. (2007), О семантике прилагательных цвета, [in:] Василевич, А. П. (ред.), Наименования цвета в индоевропейских языках. Системный и исторический анализ. Москва, 29-39.]

Robson, D. (2012), Are there really 50 Eskimo words for snow?, [in:] New Scientist 2896, 72-73.

Romer, E. (2022), Determinizm i posybilizm geograficzny w geopolityce, [in:] Political Dialogues 32, 105-133.
Russell, B. (1912), Problems of Philosophy. Oxford.
Rybicka, E. (2014), Geopoetyka. Przestrzeń i miejsce we współczesnych teoriach i praktykach literackich. Kraków.
Šajachmetova, A. A. | Taskulova, M. A. (2015), Osobennosti vlijanija cveta na soznanie predstavitelej etnosov, [in:] Vestnik Severo-Kazachstanskogo gosudarstvennogo universiteta 2 (27), 225-229. [Шаяхметова, А. А. | Таскулова, М. А. (2015), Особенности влияния цвета на сознание представителей этносов, [в:] Вестник Северо-Казахстанского государственного университета 2 (27), 225-229.]
Sapir, E. (1993), Izbrannye trudy po jazykoznaniju i kul'turologii. Moskva. [Сепир, Э. (1993), Избранные труды по языкознанию и культурологии, Москва.]
Sarmanbetova, U. | Mandal, R. (2019), Symbolism and Semantics Colors in Kazakh Culture, [in:] North America Academic Research 2 (4), 101-115.
Scheler, M. (1926), Die Wissensformen und die Gesellschaft. Leipzig.
Scherp, A. | Jain, R. (2009), An ecosystem for semantics, [in:] IEEE MultiMedia 16 (2), 18-25.
Semple, E. C. (1911), Influences of Geographic Environment on the Basis of Ratzel's System of Anthropo-Geography. New York.
Semple, E. C. (1933), The Geography of the Mediterranean Region. New York.
Slobin, D. I. (1987). Thinking for Speaking, [in:] Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society 13, 435-445.
Stanulewicz, D. (2009), Colour, Culture and Language: Blue in Polish. Gdańsk.
Stefaniak-Rak, K. (2015), Animal Coat Colours (Mainly of Horses and Cattle) Mentioned in the 17th Century Judicial Book from the Crimea, [in:] Przegląd Orientalistyczny LXVIII (2), 155-168.
Stemplewska-Żakowicz, K. | Zalewski, B. | Suszek, H. et al. (2009), Relacyjnie ustrukturalizowany umysł. Model teoretyczny, [in:] Przegląd Psychologiczny 52 (1), 69-85.
Šuchová, J. (2014), Konzeptualisierung von Farben und ihre Spiegelung in Farbbezeichnungen im Deutschen und Slowakischen (kognitiv-semantische Ansicht), [in:] Slowakische Zeitschrift Für Germanistik 6 (1), 42-57.
Szczęk, J. (2013), Über blaue Briefe, schwarze Kunst, niebiescy chłopcy und czarna śmierć: Zu einigen semantischen Besonderheiten im Bereich der Farbphraseologismen im Deutsch-Polnischen und Polnisch-Deutschen Vergleich (am lexikografischen Material), [in:] Zeszyty Naukowe Uniwersytetu Szczecińskiego 774. Colloquia Germanica Stetinensia 22, 282-300.
Szlachta, A. (2018), Prototypowe odniesienia nazw barw (na przykładzie badań ankietowych prowadzonych w środowisku wielojęzycznym), [in:] Komorowska, E. | Stanulewicz, D. (red.), Barwa w języku, literaturze i kulturze IX, Szczecin, 123-137.
Ten, J. P. (2007), Simvol v mežkul'turnoj kommunikacii. Rostov-na-Donu. [Тен, Ю. П. (2007), Символ в межкультурной комуникации. Ростов-на-Дону.]
Tokarski, R. (2004), Semantyka barw we współczesnej polszczyźnie. Lublin.
USJP: Dubisz, S. (red.) (2008), Uniwersalny słownik języka polskiego. T. 1-4. Warszawa.
Vasilevič, A. P. (2007), Ėtimologija cvetonaimenovanij kak zerkalo nacional'no-kul'turnogo soznanija, [in:] Vasilevič, A. P. (ed.), Naimenovanija cveta v indoevropejskich jazykach. Sistemnyj i istoričeskij analiz. Moskva, 9-28. [Василевич, А. П. (2007), Этимология цветонаименований как зеркало национально-культурного сознания, [in:] Василевич, А. П. (ред.), Наименования цвета в индоевропейских языках. Системный и исторический анализ. Москва, 9-28.]
Vereščagin, E. M. | Kostomarov, V. G. (1980), Lingvostranovedčeskaja teorija slova. Moskva. [Верещагин, Е. М. | Костомаров, В. Г. (1980), Лингвострановедческая теория слова. Москва.]
Vitols, G. | Arhipova, I. | Hirata, Y. et al. (2015), Colour Extraction and Analysis Solution for Design of Cross-cultural Websites, [in:] Procedia Computer Science 77, 215-220.

van Scherpenberg, C. (2014), Pink im Deutschen und Dänischen. Eine Studie zur Semantik von Farbwortentlehnungen, [in:] Scherpenberg, C. van | Szabo, F. | Eckmann, S. (Hrsg.), Münchener Beiträge zur Allgemeinen und Historischen Sprachwissenschaft, 4. München, 81-92.
von Uexküll, J. (1940 | 1982), The theory of meaning, [in:] Semiotica 42 (1), 25-82.
Wagner, P. L. (1977), The concept of environmental determinism in cultural evolution, [in:] Reed, C. A. (ed.), The Origins of Agriculture. Berlin | New York, 49-74.
Waszakowa, K. (1997), Dotychczasowe badania w zakresie nazw barw w poszczególnych językach a perspektywa ich całościowego opisu porównawczego, [in:] Teodorowicz-Hellman, E. | Nilsson, B. (eds.), Nazwy barw i wymiarów. Colour and measure terms. Stockholm, 87-96.
Whorf, B. L. (1940), Science and Linguistics, [in:] Technology Review (MIT) 42, 229-231.
Wierzbicka, A. (1990), Leksykalno-frazeologiczna struktura języka. Wrocław.
Wierzbicka, A. (2010), Semantyka. Jednostki elementarne i uniwersalne. Lublin.
Winawer, J. | Witthoft, N. | Frank, M. C. et al. (2007), Russian blues reveal effects of language on color discrimination, [in:] PNAS 104 (19), 7780-7785.
Witek, E. (2014), Komunikacja wizualna. Nowoczesne narzędzia. Wrocław.
WSJP: Żmigrodzki, P. (2021), Wielki słownik języka polskiego. Warszawa. URL: https://wsjp.pl
Zimmermann, K. (2006), Wilhelm von Humboldts Verstehens- und Wortbegriff. Eine konstruktivische Sprachtheorie *avant la lettre*, [in:] Beiträge zur Geschichte der Sprachwissenschaft 16, 263-284.
Zlatev, J. (2003), Meaning = Life + (Culture): An outline of a unified biocultural theory of meaning, [in:] Evolution of Communication 4 (2), 253-296.