

BEYOND THE SPECTRUM: A COMPARATIVE LINGUOCULTURAL ANALYSIS OF COLOR LEXICON IN JAPANESE, ENGLISH, AND KARAKALPAK

Berdimuratova Sarbinaz

Karakalpak State University

Abstract

Introduction: This article presents a comprehensive comparative analysis of the lexical systems of color terminology in three genetically and typologically distinct languages: Japanese, English, and Karakalpak. While the study of color terms has been central to the debate between linguistic universalism and relativism, few studies have juxtaposed these specific linguocultures to identify the unique models of color conceptualization they represent.

Methods: The study employs a multi-faceted methodology combining a descriptive method for inventorying color lexicons, a comparative method to identify universal and specific traits, and a linguocultural analysis to interpret the symbolic and phraseological semantics of color terms. The theoretical framework synthesizes the universalist theory of Basic Color Terms (BCT) by Berlin and Kay with a culturally-sensitive approach rooted in the Sapir-Whorf hypothesis.

Results: The analysis revealed three distinct models of organizing the lexico-semantic field of color. (1) The Japanese system is characterized by a rigid grammatical hierarchy, lexical stratification from three historical layers (wago, kango, gairaigo), and the semantic conservatism of archaic terms, notably the syncretic "grue" category aoi. (2) The English system is defined by its exceptional lexical saturation resulting from a Germanic-Romance synthesis, grammatical homogeneity at the basic level, and highly productive word-formation through compounding. (3) The Karakalpak system is built upon an ancient Turkic lexical core, which has been differentiated and expanded through contact-stimulated evolution, primarily via Persian and Russian loanwords, and is structurally dominated by agglutinative morphology.

Discussion: The comparison demonstrates that while all three languages have converged at Stage VII of the BCT evolutionary model, their paths and resulting symbolic systems are profoundly different. This study identifies and describes three unique ethnospecific models of color conceptualization: a psychological-ethical model in English, a religious-aesthetic model in Japanese, and a natural-social model in Karakalpak. These models are most vividly expressed in the phraseological fund of each language, where universal color metaphors are shaped by distinct cultural values. The findings contribute to a nuanced understanding of the interplay between universal cognitive constraints and language-specific cultural factors in shaping the human experience of color.

Keywords: Color Terminology, Linguoculturology, Comparative Linguistics, Phraseology, Japanese, English, Karakalpak, Linguistic Relativity.

1. Introduction

In an era of intensifying globalization, the study of how different languages conceptualize reality remains a cornerstone of linguistics and anthropology. Color, as a universal physical phenomenon uniquely interpreted by human cognition, provides a fertile ground for exploring

the intricate connections between language, thought, and culture. The linguistic categorization of the color spectrum has historically been at the center of a fundamental debate between universalist theories and the principle of linguistic relativity. The former, most notably the theory of Basic Color Terms (BCT) by Brent Berlin and Paul Kay (1969), posits a universal, hierarchical sequence for the emergence of eleven basic color terms in all languages. The latter, advanced by Benjamin Lee Whorf (1956), suggests that the structure of a language profoundly influences its speakers' perception and categorization of the world.

Modern research has moved towards a synthesis, acknowledging that a universal psychophysiological foundation for color perception is shaped and structured by unique cultural and linguistic factors (Lucy, 1992; Wierzbicka, 1999).

However, there remains a significant gap in comparative research that juxtaposes typologically and genetically disparate languages to reveal the specific models of this interaction. This study aims to fill this lacuna by conducting a comprehensive comparative analysis of the color lexicons in Japanese (Japonic family), English (Indo-European family), and Karakalpak (Turkic family). The selection of these three languages provides a representative sample of distinct linguistic structures and cultural histories.

The primary objective of this research is to identify the universal patterns and ethnospecific characteristics in the linguistic conceptualization of color across these three linguocultures. By analyzing the structure, semantics, and phraseological usage of color terms, this article seeks to demonstrate how a shared perceptual experience gives rise to three profoundly different, yet internally coherent, "color worlds."

2. Methods

This research is founded on a qualitative, comparative-descriptive methodology. The primary object of study consists of the lexical units that verbalize the concept of color (coloratives), including adjectives, nouns, and derived formations, within the Japanese, English, and Karakalpak languages.

The analytical process involved three main stages:

* **Descriptive and Structural Analysis:** The lexical corpus of color terms in each language was inventoried and classified according to its historical strata, grammatical properties, and word-formation models. This stage established the unique structural principles of each system.

* **Semantic and Linguocultural Analysis:** The denotative, connotative, and symbolic meanings of core color terms were examined using component and contextual analysis. This involved tracing the cultural associations of colors embedded in mythology, religion, and social practices (Maslova, 2010).

* **Comparative Analysis:** The systems of the three languages were directly compared at the levels of basic color inventories, structural organization, symbolic meaning, and phraseological expression to identify points of convergence (universals) and divergence (ethnospecific features) (Arakin, 2005).

The theoretical framework of Berlin and Kay's BCT model (1969) was used as an initial heuristic for comparing the evolutionary stage of each language's lexicon, while the ultimate interpretation of the data was informed by a linguocultural approach that views language as a primary tool for constructing a culturally specific worldview.

3. Results

The structural-semantic analysis of the three languages revealed three distinct models of organizing the lexico-semantic field of color.

3.1 The Japanese System: A Hierarchical and Stratified Model

The Japanese system is defined by a rigid grammatical hierarchy. A core of five ancient color terms—akai (red), kuroi (black), shiroi (white), aoi (blue/green), and the hybrid kiroi (yellow)—are predicative *i*-adjectives with a unique conjugation paradigm. All other color terms, regardless of origin, are grammatically nouns, requiring particles to function attributively.

The lexicon is historically stratified into three layers (Alpatov, 2008):

- * Wago (和語): Native Japanese words, forming the ancient core and carrying the deepest symbolic weight (akai, shiroi, etc.).

- * Kango (漢語): Sino-Japanese loanwords, used for more abstract or technical terms (midori - green, chairo - brown).

- * Gairaigo (外来語): Modern loanwords, primarily from English, which fill the final Stage VII categories (pinku - pink, orenji - orange, guree - grey).

A key feature is its semantic conservatism, most evident in the term aoi (青い). This word retains its archaic, syncretic meaning covering both blue and green (a "grue" category) in numerous fixed expressions (e.g., ao-shingō - green traffic light), despite the modern adoption of midori for green. This demonstrates the system's preservation of its earlier evolutionary stages.

3.2 The English System: A Lexically Saturated and Homogeneous Model

The English system is characterized by exceptional lexical saturation and synonymy. This is a direct result of the historical fusion of a Germanic lexical base with a massive influx of French (Romance) vocabulary after the Norman Conquest of 1066 (Baugh & Cable, 2013). This created numerous stylistic synonym sets (e.g., the Germanic red alongside the French-derived scarlet and vermilion).

Structurally, the system is marked by grammatical homogeneity at its core. All eleven basic color terms identified by Berlin and Kay (black, white, red, green, yellow, blue, brown, purple, pink, orange, grey) are simple adjectives that function identically. Further differentiation is achieved through highly productive and structurally transparent word-formation models, primarily compounding based on a "referent + color" pattern (sky-blue, cherry-red, snow-white) and affixation (reddish, whitish) (Plag, 2003).

3.3 The Karakalpak System: A Contact-Stimulated and Agglutinative Model

The Karakalpak system is founded on a well-preserved ancient Turkic lexical core (aq - white, qara - black, qızıl - red, sarı - yellow, and the syncretic kók - blue/green) (Kononov, 1978). This core carries profound cultural symbolism tied to the traditional nomadic worldview.

The system's evolution is a clear example of development through language contact (Weinreich, 1979). The crucial step of differentiating the "grue" category kók was achieved not through internal resources but by borrowing jası́l (green) from Persian. The final Stage VII terms were almost entirely adopted from Russian in the modern era (rozoviy - pink, oranjeviiy - orange).

Structurally, the system is dominated by agglutinative morphology (Baskakov, 1969). A rich inventory of derivational suffixes (-ısh, -ǵılt, -shıl) is productively used to create a wide array of nuanced shades from the basic roots (e.g., aǵısh - whitish, qızǵılt - reddish). Furthermore,



the lexicon is rich in referent-based nominations tied to the local ecology and pastoral economy (kúreń - chestnut horse color, palapan - poppy-red).

4. Discussion

A direct comparison of the three systems confirms that while all have lexicons corresponding to Stage VII of the BCT model, they represent three distinct evolutionary pathways and conceptual frameworks. English exemplifies a path of internal development enriched by lexical fusion. Japanese shows a multi-layered development shaped by successive waves of external influence. Karakalpak demonstrates a contact-stimulated evolution where borrowing was the primary catalyst for structural differentiation.

The most significant divergence lies in the symbolic and metaphorical systems built upon these structures. The analysis reveals three distinct ethnospecific models of color conceptualization.

* The Psychological-Ethical Model (English): English systematically employs color terms to conceptualize internal psychological states and moral-ethical judgments. This is most evident in its rich phraseology: feeling blue (sadness), to see red (anger), green with envy (jealousy), yellow-bellied (cowardice), a white lie (an ethical category), and blacklist (social proscription). This reflects a cultural focus on individual emotional experience and social ethics (Kövecses, 2000).

* The Religious-Aesthetic Model (Japanese): Japanese color symbolism is deeply intertwined with religious (Shinto, Buddhist) and aesthetic principles. Colors are markers of ritual, social, and aesthetic states rather than internal emotions. Shiroi (white) symbolizes both divine purity and the sacral nature of death. Murasaki (purple) historically signified the highest aristocratic rank. Phraseology reflects a focus on social evaluation and appearance, not internal feeling: haraguroi (腹黒い, literally "black-bellied") for a conniving person, or shiroi me de miru (白い目で見る, "to see with white eyes") for looking at someone with coldness and disdain.

* The Natural-Social Model (Karakalpak): Karakalpak color symbolism is most closely tied to the natural environment, the pastoral economy, and the traditional social structure. Color terms and their derived idioms verbalize concepts fundamental to this worldview: good fortune (aq jol - "white road," a blessing for a traveler), honor and shame (qara júz bolıw - "to become black-faced," to be disgraced), social status (aq súyek - "white bone," nobility vs. qara xalıq - "black people," commoners), and intrinsic value (qızıl til - "red tongue," eloquence).

This divergence is particularly stark in the conceptualization of specific colors. The English metaphor SADNESS IS BLUE is entirely absent in the other two languages. Instead, Japanese aoi is metaphorically linked to immaturity and ill health (aonisai - "greenhorn"), while Karakalpak kók is tied to the sacrality of the sky. Similarly, the English link between green and envy is not found in Japanese or Karakalpak, where the color retains an exclusively positive association with nature and vitality.

These findings suggest that while the BCT model correctly identifies universal tendencies in lexicalization, it is the culturally-specific metaphorical and symbolic frameworks that constitute the core of a language's "color world." The data supports a view where a universal cognitive foundation serves as a base upon which each culture builds a unique and elaborate symbolic superstructure.

5. Conclusion

This comparative study of color terminology in Japanese, English, and Karakalpak has demonstrated that behind the seemingly universal phenomenon of color lies a profound linguistic and cultural diversity. The research has successfully identified and described three distinct typological models of color lexicon organization—hierarchical (Japanese), saturated (English), and contact-stimulated (Karakalpak)—and, more importantly, three unique models of symbolic conceptualization: psychological-ethical (English), religious-aesthetic (Japanese), and natural-social (Karakalpak).

The findings reaffirm that language is not merely a tool for labeling a pre-existing reality but a powerful force in structuring and interpreting human experience. While the perceptual salience of certain colors may be universal, the meanings, emotions, and values that cultures attach to them are highly specific.

This work contributes to the fields of comparative linguistics and linguoculturology by providing a detailed, multi-language case study that bridges the universalist-relativist divide and offers a new typology of color conceptualization models. Future research could extend this analysis through psycholinguistic experiments to test the cognitive reality of these models among native speakers or explore their manifestation in contemporary discursive practices such as advertising and political discourse. Ultimately, understanding the "color worlds" of others is a vital step toward fostering deeper intercultural competence.

References

1. Alpatov, V. M. (2008). *Yaponiya: yazyk i kul'tura* [Japan: Language and culture]. Moscow: Yazyki slavyanskikh kul'tur. [in Russian].
2. Arakin, V. D. (2005). *Sravnitel'naya tipologiya angliyskogo i russkogo yazykov* [Comparative typology of English and Russian languages] (3rd ed.). Moscow: FIZMATLIT. [in Russian].
3. Baskakov, N. A. (1969). *Vvedenie v izuchenie tyurkskikh yazykov* [Introduction to the study of Turkic languages] (2nd ed.). Moscow: Vysshaya shkola. [in Russian].
4. Baugh, A. C., & Cable, T. (2013). *A history of the English language* (6th ed.). Routledge.
5. Berlin, B., & Kay, P. (1969). *Basic color terms: Their universality and evolution*. University of California Press.
6. Kononov, A. N. (1978). Semantika tsvetooboznacheniy v tyurkskikh yazykakh [Semantics of color terms in Turkic languages]. In *Tyurkologicheskiy sbornik 1975* (pp. 159–179). Moscow: Nauka. [in Russian].
7. Kövecses, Z. (2000). *Metaphor and emotion: Language, culture, and body in human feeling*. Cambridge University Press.
8. Lucy, J. A. (1992). *Language diversity and thought: A reformulation of the linguistic relativity hypothesis*. Cambridge University Press.
9. Maslova, V. A. (2010). *Lingvokul'turologiya* [Linguoculturology] (4th ed.). Moscow: Akademiya. [in Russian].
10. Plag, I. (2003). *Word-formation in English*. Cambridge University Press.
11. Weinreich, U. (1979). *Yazykovye kontakty: Sostoyanie i problemy issledovaniya* [Languages in contact: Findings and problems]. Kyiv: Vyscha shkola. [in Russian].
12. Whorf, B. L. (1956). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf* (J. B. Carroll, Ed.). MIT Press.



13. Wierzbicka, A. (1999). *Emotions across languages and cultures: Diversity and universals*. Cambridge University Press.