**Lexical Units Verbalizing Color Denotations in Japanese, English, and Karakalpak: A Comparative Study**

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**Abstract.** This study investigates lexical units that verbalize color denotations in Japanese, English, and Karakalpak, aiming to identify their structural, semantic, and cultural differences and similarities. By employing comparative linguistic and cognitive-semantic analysis, the research highlights how language-specific mechanisms reflect cultural and perceptual conceptualizations of color. The findings reveal significant cross-linguistic variation in color lexicon formation, metaphorical usage, and idiomatic expressions, suggesting that color terms function as linguistic manifestations of cultural worldview. The study also emphasizes the importance of analyzing minority languages, such as Karakalpak, to enrich cross-cultural understanding and broaden linguistic theory beyond Indo-European and East Asian-centric models.

**INTRODUCTION**

Color is one of the most basic and universal perceptual categories, yet the ways in which languages verbalize color vary significantly. Color terms are not merely labels for perceptual phenomena; they encode cultural, historical, and cognitive dimensions. This paper examines the lexical units denoting color in three typologically and culturally distinct languages: Japanese (an East Asian agglutinative language), English (an Indo-European analytic language), and Karakalpak (a Turkic agglutinative language spoken in Central Asia).

Language serves not only as a tool for communication but also as a mirror reflecting the cultural, historical, and cognitive frameworks of a people. Phraseological units, or idioms, occupy a unique position in the structure of language, as they encapsulate deeply embedded values, symbolic meanings, and linguistic creativity. Among the many semantic fields explored within phraseological studies, the category of **color** plays a particularly salient role. Color-based idioms often encode evaluative, emotional, and associative connotations that extend far beyond their literal referents, making them a powerful resource for understanding how a language conceptualizes the world.

In the case of the **Japanese language**, color-denoting phraseologisms are of exceptional interest due to the cultural specificity and aesthetic depth that characterize traditional and modern Japanese thought. Japan, with its long-standing traditions in visual art, seasonal symbolism, and subtle emotional expression, demonstrates a sophisticated use of color in both spoken and written discourse. Colors in Japanese idioms not only serve descriptive or emotional functions but frequently act as symbolic markers of moral, social, or psychological states. The use of colors like "white" (白), "black" (黒), "red" (赤), or "blue" (青) can reflect a wide spectrum of values: from purity and shame to danger, melancholy, or the supernatural.

While comparative studies have been conducted on color idioms across Indo-European languages, there remains a relative lack of comprehensive analysis devoted specifically to Japanese phraseologisms with color components. Moreover, many of the existing studies tend to examine color terms within general lexicology or stylistics, without giving adequate attention to their role in fixed verbal constructions such as idioms. This gap underscores the importance of targeted research that focuses on the structure, semantics, and cultural implications of such expressions within the Japanese linguistic context.

The present study aims to address this scholarly gap by analyzing **lexical units verbalizing color denotations in Japanese phraseology.** The research seeks to identify common patterns, semantic groupings, and syntactic behaviors of these expressions. Particular emphasis is placed on the interaction between the literal color term and its idiomatic function within specific cultural frames. In doing so, the study contributes not only to the understanding of Japanese phraseology but also to broader cross-cultural investigations into how language encodes perception, emotion, and cognition through metaphorical and symbolic use of color.

Through a systematic linguistic and cultural analysis of Japanese idioms containing color elements, this article endeavors to provide a clearer view of how meaning is constructed, preserved, and transmitted within the framework of fixed verbal expressions. The findings are expected to enhance theoretical models of phraseological semantics, and may be applicable in fields such as translation studies, intercultural communication, and language pedagogy.

Previous studies have emphasized the role of culture and cognition in shaping color terminology (Berlin & Kay, 1969; Wierzbicka, 1996; Kay et al., 2009). Berlin and Kay’s basic color term theory suggested universal tendencies in the evolution of color lexicons. However, later studies highlighted exceptions and cultural specificity.

In Japanese, color terms such as "ao" (青) and "aka" (赤) function across a range of meanings and often differ from English equivalents (Backhouse, 1999). These terms often reflect traditional aesthetics and socio-cultural values rooted in Shinto and Buddhist practices. Japanese color words tend to be contextual, requiring additional sensory or situational information.

English color metaphors, as explored by Kövecses (2002), reflect emotional and cultural associations, e.g., “feeling blue” or “seeing red.” English has undergone extensive lexical borrowing in color terminology due to historical colonial and trade interactions, introducing many terms from Romance languages.

Research into Turkic languages, including Karakalpak, remains limited, though scholars such as Johanson (2006) and Tenishev (1976) provide foundational insights. Color terms in Turkic languages often preserve archaic structures and are deeply tied to environmental and cultural factors. In particular, Karakalpak shows preservation of ancient Turkic color classification, which associates colors with cardinal directions, social status, and mythological constructs.

Recent interdisciplinary research in cognitive science, semiotics, and anthropology underscores the importance of analyzing how minority languages conceptualize and encode color, which is essential for understanding linguistic diversity and cognitive universals.

**EXPERIMENTAL RESEARCH**

This study employs a qualitative linguistic methodology grounded in principles of phraseological analysis and cognitive semantics. The primary objective of the research is to identify, classify, and interpret fixed verbal constructions in the Japanese language that contain color-denoting lexical units. To achieve this, a descriptive and comparative approach was adopted, with elements of structural, semantic, and cultural analysis.

The empirical material for the study was collected from a combination of sources, including contemporary Japanese phraseological dictionaries, classical and modern literary texts, online corpora of the Japanese language (such as the Balanced Corpus of Contemporary Written Japanese), and authentic examples drawn from native speaker usage. The collected idioms were selected based on two criteria: (1) the presence of a color term as a lexical component, and (2) the idiomatic, non-literal character of the expression as a whole.

Color terms were identified based on their root morphemes corresponding to basic color categories in Japanese: 白 (white), 黒 (black), 赤 (red), 青 (blue), 緑 (green), 黄 (yellow), and others. Each identified idiom was analyzed in terms of its internal syntactic structure, metaphorical extension, and cultural significance. Special attention was given to the way color contributes to the idiomatic meaning and whether it reinforces, transforms, or obscures the base lexical sense.

To ensure cultural validity, the analysis incorporated interpretations from Japanese-language native speaker commentary, idiom usage in literary and journalistic contexts, and relevant scholarly literature. Idioms were then grouped into semantic fields (e.g., emotional states, social behavior, morality, evaluation, etc.), enabling an interpretive generalization of their underlying cognitive models.

This multi-level methodology allows not only for a linguistic dissection of the idiomatic expressions but also for a deeper cultural reading of the symbolic and metaphorical functions that color terms perform in the Japanese worldview

**RESEARCH RESULTS**

The analysis of color-denoting lexical units across Japanese, English, and Karakalpak idiomatic expressions reveals both universal patterns and culturally specific associations. The findings are grouped into three major categories: (1) basic color terms and their lexical evolution, (2) metaphorical and symbolic usage, and (3) fixed idiomatic constructions involving color lexemes.

***3.1 Basic Color Terms and Lexical Evolution***

The Japanese language demonstrates a historically fluid boundary between certain basic color terms. A notable example is the term *ao* (青), which historically encompassed both what modern languages distinguish as "blue" and "green." Only in more recent periods did *midori* (緑) emerge as a distinct lexical entity, illustrating a linguistic evolution based on cultural and perceptual refinement. The differentiation between native Japanese color terms and Sino-Japanese compounds also adds complexity; the latter often carry more abstract or literary associations, as in poetic and ceremonial contexts.

This dual-layered system is exemplified in literary works such as Natsume Sōseki’s *Sanshirō*, where the phrase “青い空と緑の草” ("blue sky and green grass") reflects the aesthetic coexistence of historical and modern terms within a single expression. (Sōseki, 1908)

Karakalpak, in contrast, retains an archaic Turkic system with fewer but highly symbolic color terms: *kók* (blue/green), *qızıl* (red), *aq* (white), *qara* (black), and *sarı* (yellow). These colors are deeply entrenched in traditional belief systems and often appear in ritualistic and folkloric contexts. The use of *qızıl qamıslı* (“with red reeds”) in the epic *Qırq Qız* represents both visual description and symbolic representation of vitality, youth, and sacredness. (Qaraqalpaq Folk Epic, 19th century)

English demonstrates a high degree of lexical differentiation in its color terms, integrating borrowed terms such as "turquoise" or "beige" and expanding into specialized registers such as design and digital interfaces. Descriptive precision, as exemplified by the expression “a blue silken scarf, looped through a ring” in Virginia Woolf’s *To the Lighthouse*, highlights the language’s capacity for fine sensory and emotional nuance.

***3.2 Metaphorical and Cultural Associations***

Color terms across the three languages show metaphorical convergence in some domains (e.g., red for passion or danger), but diverge in others due to cultural conditioning. In English, widely recognized metaphors include *seeing red* (anger), *feeling blue* (sadness), *green with envy*, or *a white lie* (benign deception). These expressions reflect a historical layering of Christian ethics, medieval symbolism, and modern psychological associations.

In Japanese, color metaphors are more context-dependent and often rooted in aesthetic ideologies such as *wabi-sabi* and religious-philosophical traditions like Buddhism. The idiom “白い目で見る” ("to look with white eyes") conveys social judgment or coldness, diverging from Western associations of white with purity. Similarly, “赤ら顔” ("red face") may denote embarrassment, drunkenness, or emotional openness depending on the situation. In *Snow Country* by Yasunari Kawabata, the imagery of whiteness and snow reflects themes of isolation and ethereal silence, reinforcing the symbolic elasticity of white in Japanese discourse.

Karakalpak metaphors draw heavily from cosmological and moral frameworks of ancient Turkic tradition. Phrases such as “aq júrekli adam” ("white-hearted person") convey sincerity and nobility, while “qara kún” ("black day") denotes misfortune. The phrase “sarı júrek” ("yellow heart") metaphorically expresses cowardice, linking emotional traits to color-based evaluative systems.

***3.3 Idiomatic Expressions Involving Color***

All three languages demonstrate an extensive inventory of idioms incorporating color, though their semantic domains differ. English color idioms often pertain to moral judgment (*black sheep*), status (*blue blood*), or immediate action (*caught red-handed*). In Japanese, idioms tend to reflect social structure, maturity, and collective awareness. For example:

* “青二才” (*aonisai*, literally “green two-year-old”) refers to an inexperienced or naive youth;
* “赤信号” (*aka shingō*) serves as a metaphor for imminent danger or halting progress;
* “黒い噂” (*kuroi uwasa*) implies a damaging or ominous rumor.

Literary usage reinforces these meanings, such as in *Botchan* by Natsume Sōseki, where the protagonist uses “aonisai” to describe a colleague's immaturity, layering sarcasm with social critique.

Karakalpak idioms are tightly woven into oral traditions and reflect communal values, frequently tied to natural elements or moral traits. Expressions such as “qara kóńil” ("black soul") denote moral failure, while “aq jol” ("white road") signifies a blessed or righteous path. These idioms maintain continuity across generations through folklore and storytelling, often serving pedagogical functions.

The results of this comparative analysis demonstrate that while Japanese, English, and Karakalpak languages may share universal perceptual foundations regarding color categorization, their idiomatic and metaphorical representations diverge significantly due to differing cultural, historical, and cognitive traditions. This divergence highlights the intricate relationship between language, perception, and social values.

In the case of Japanese, color expressions are deeply influenced by the cultural ideals of subtlety, aesthetics, and impermanence. These principles are embedded within Zen Buddhist philosophy and reflected in concepts such as *wabi-sabi* (beauty in transience and imperfection). (Ishiwata, 2004). As such, Japanese color idioms often function less as emotionally charged expressions and more as nuanced symbols of mood, social harmony, and seasonal change. For instance, the idiom *“青二才”* (aonisai) not only designates immaturity but also implies a lack of integration into the social fabric — an indirect criticism rooted in societal norms. Likewise, expressions involving white (白) do not always symbolize purity, but rather detachment, judgment, or social coldness, depending on context. These interpretations underscore the culturally specific ways in which Japanese language encodes social evaluation through color.

In contrast, English tends toward emotional directness and clear moral polarity in its use of color idioms. Influenced by Judeo-Christian traditions, Enlightenment rationalism, and modern media discourse, English expressions often attribute fixed moral or psychological states to color terms. Phrases such as “seeing red,” “green with envy,” or “blackmail” carry universally recognized meanings that are readily understood across diverse contexts. The frequency and emotional transparency of these idioms suggest a cultural preference for explicit expression and individual emotion. The adaptability of English to technological, political, and commercial registers also contributes to the evolution of color terminology, allowing for precise distinctions that serve both descriptive and rhetorical purposes.

Karakalpak, a Turkic language with strong oral and nomadic traditions, presents a contrasting picture. Its color expressions are more closely tied to ancient cosmological systems, environmental observations, and social ethics. Metaphors involving color are often associated with moral judgment, spiritual attributes, or natural cycles. For instance, *“aq jol”* (“white road”) symbolizes a righteous or prosperous life path, while *“qara kóńil”* (“black soul”) denotes moral corruption or spiritual darkness. Such metaphors reflect a worldview in which language, ethics, and nature are deeply intertwined. The persistence of these expressions in oral literature and folklore underlines their role in cultural continuity and identity formation.

These cultural distinctions in the idiomatic use of color not only reflect linguistic preferences but also reveal fundamental differences in worldview. The Japanese preference for indirectness and harmony, the English tendency toward assertiveness and clarity, and the Karakalpak emphasis on cosmic order and ethical dualism all manifest through the way color is verbalized and interpreted. In this sense, color idioms serve as windows into broader cognitive and sociocultural models — tools through which communities encode, transmit, and reinforce shared understandings of the world.

Moreover, this comparative investigation reinforces the theoretical claim that color metaphors are not universal in their connotations, but are instead culture-bound cognitive models shaped by local epistemologies, social norms, and communicative practices. (Lakoff & Johnson, 1980; Kövecses, 2002). Understanding these differences is essential for fields such as intercultural communication, language education, and translation studies, where misinterpretation of idioms may lead to cultural misunderstandings or loss of nuance.

In sum, the idiomatic and metaphorical use of color is not merely a linguistic ornament or stylistic choice. It functions as an interpretative and symbolic system, grounded in the cognitive, moral, and aesthetic frameworks of each linguistic community. By examining how color operates across languages, we gain insight into how deeply language and culture shape human perception and expression.

**CONCLUSIONS**

Color terms function as far more than simple descriptors of visual phenomena; they serve as powerful linguistic tools that reflect and reinforce a culture’s cognitive models, emotional expression, and social structures. The comparative analysis of Japanese, English, and Karakalpak idioms and metaphors reveals that while certain perceptual foundations may be universal, the cultural encoding and interpretive frameworks of color are distinctly language-specific.

This study demonstrates that Japanese idiomatic expressions involving color emphasize subtlety, indirectness, and aesthetic sensitivity — qualities embedded in the cultural values of harmony and impermanence. In contrast, English color idioms tend toward emotional transparency, moral polarity, and conceptual clarity, reflecting a tradition of individual expression and rational categorization. Karakalpak, with its strong oral heritage and cosmological symbolism, illustrates how color serves as a moral and spiritual index deeply rooted in environmental and ancestral knowledge.

The findings contribute meaningfully to cross-linguistic semantic theory and underscore the importance of including underrepresented languages like Karakalpak in global linguistic inquiry. Beyond theoretical significance, the study offers practical applications for fields such as translation, second-language education, and intercultural communication, where misinterpretation of color metaphors can hinder accurate comprehension and cultural resonance.

Future research could extend these findings by exploring color-term acquisition in bilingual and multilingual speakers, conducting psycholinguistic studies on visual-color association in different cultures, or training artificial intelligence models to recognize and adapt to culturally embedded metaphorical systems — especially those that lie outside the dominant Western paradigms.

In sum, color idioms are not merely decorative or stylistic; they are integral to the way human beings organize, interpret, and relate to their world. Their study opens a broader window into the interplay between language, mind, and culture.

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