**Humanus: Jurnal Ilmiah Ilmu-Ilmu Humaniora**
available at http://ejournal.unp.ac.id/index.php/humanus/index
Pusat Kajian Humaniora
Fakultas Bahasa dan Seni
Universitas Negeri Padang, Indonesia

# Basic Colors in Javanese and Indonesian Languages: Natural Semantic Metalanguage Theory

**Dwi Kurnia Surya Ningrum[1], Christanta Rejuna Phanes S Brahmana[2], & Mulyadi[3]***
[1]Universitas Sumatera Utara, Indonesia
*Corresponding Author: mulyadi@usu.ac.id

This study explores the variety of basic colors in the Javanese language and aims to elucidate their meanings using the Natural Semantic Metalanguage Theory. Employing a qualitative research paradigm, data were collected from various sources, including Indonesian and Javanese dictionaries, LCC Indonesian 2022 and LCC Javanese corpus from CQPWeb. The study identifies 10 basic colors in Javanese, namely Ireng (black), Putih (white), Abang (red), Ijo (green), Kuning (yellow), Biru (blue), Soklat (brown), Wungu (purple), Jambon (pink), and Klawu (gray), while Indonesian has only six basic colors: Hitam (black), Putih (white), Merah (red), Kuning (yellow), Hijau (green), and Biru (blue). Utilizing the features of the Natural Semantic Metalanguage (NSM) theory and the Basic Color Term approach by Berlin and Kay, the study analyzes the Javanese colors. The research highlights differences in color explications between Javanese and Indonesian, stemming from variances in using semantic atoms to explain color meanings. For instance, in Javanese, the color black is explicated using a spice herb named "temuireng" and yam, while in Indonesian, it is explained using charcoal. Additionally, certain secondary colors in Indonesian, such as Brown, Purple, Pink, and Grey, are considered basic colors in Javanese. The findings contribute to the advancement of color studies in semantics.

**Article History**
Received: 20 November 2023
Accepted: 11 April 2024
Published: 11 April 2024

**Keywords**
*Javanese Basic Color Terms, NSM Theory, Semantics*

**How to cite:**
Ningrum, D. K. S., Brahmana, C. R. P. S., & Mulyadi. (2024). Basic Colors in Javanese and Indonesian Languages: Natural Semantic Metalanguage Theory. *Humanus: Jurnal Ilmu-Ilmu Humaniora, 23*(1), 80-95. DOI: 10.24036/humanus.v23i1.126103

## Introduction

Color plays an essential role in our daily lives, not only in terms of aesthetics but also in how we perceive and categorize the world around us. Colors are perceptual phenomena linked to language through color terms (Witzel, 2019), and the way different cultures and languages perceive and categorize colors can vary significantly. For example, the white color is associated with purity and innocence in Western culture, while in some Asian cultures, such as China and Korea, white is associated with death and mourning. In Japan, green is associated with youth, vitality, and new beginnings, while in some Middle Eastern cultures, green is associated with wealth and prosperity. In Hinduism, red is associated with purity and sensuality, while in some African cultures, red is associated

PRINTED ISSN 1410-8062
ONLINE ISSN 2928-3936

with death and mourning. As Ma & Kuang (2022) stated, color terms within human language's framework while human categorization and interpretation of the color spectrum follow a gradual and uninterrupted pattern, genetic mutations have also occurred due to historical occurrences and influences from foreign cultures.

Moreover, colors are widely believed to carry emotional significance, influencing our feelings and expressions. Regardless of language or culture, we employ colors to communicate emotions. We associate feeling sad with "blue," anger with "red," and jealousy with being "green." Cultural traditions also link colors like white to weddings and black to funerals. Additionally, giving red hearts on Valentine's Day further illustrates the emotional symbolism attached to colors (Jonauskaite et al., 2020). Associations between color and emotion appear widespread (see Lakens et al., 2013; Ou et al., 2018; Specker et al., 2018).

Some linguists, such as Berlin & Kay (1969), have focused on the identification and categorization of basic color terms across languages, defining color as a phenomenon of the physical world that is commonly coded in human language by a small number of terms that are simple, monolexemic, and culturally salient. While Biggam (2012:1) defines color as a range of visual phenomena that are distinguished by conventionally encoded in a given language. Wierzbicka (1996) defines color as an inherently relational visual attribute, referring to the sensory experience of human beings (or other creatures) in the presence of light and its reflection, and to how this experience is encoded and categorized in human language and culture. From the definitions provided by different linguists, we can conclude that color is a complex phenomenon that involves both perceptual and cognitive processes. It is a visual attribute distinguished by the human visual system and conventionally encoded in language and culture. The identification and categorization of color terms vary across different languages and cultures, indicating that color is a culturally constructed concept.

In the English language, there are 11 basic color terms, while some languages, like the Dani language spoken in Papua, New Guinea, have only two basic color terms "mili" for dark colors and "mola" for light colors. In the Himba culture of Namibia, there are five basic color terms, and they do not distinguish between blue and green. Instead, they use one term from both colors, called "zoozu". Berlin & Kay (1969) did not claim that all languages have words matching English words like red, blue and green; and their claim that they all have words like black and white was later revised and rephrased.

Berlin and Kay conducted a cross-linguistic analysis of 98 languages to investigate the extent to which color terms are universal across languages and cultures. They found that there is a strong correlation between the number of basic color terms a language has and its stage of development. For example, languages in the earliest stages of development tend to have only two or three basic color terms, while languages in more advanced stages of development have more basic color terms. Furthermore, Berlin & Kay identified 11 universal basic color terms that exist in all languages: black, white, red, green, yellow, blue, brown, purple, pink, orange, and grey. They argued that these basic color terms are innate and universal and that they are the foundation upon which all other color terms are built.

In line with this, Abbott et al. (2016) delve into the debate on focal colors, which are considered sources of cross-language color-naming universals or products of varying category boundaries. Abbott proposes a synthesis, linking the debate to general principles. Using a statistical model, the study analyzes named color categories across 112 languages, revealing universal tendencies and language-specific variations. The

conclusion suggests that categorization in color naming may adhere to broad cognitive principles, elucidating the interplay of universal and language-specific factors.

The Javanese language is spoken in Indonesia and is known for its rich linguistic and cultural heritage. According to Dr G. B. Rouffaer and Dr H. H. Juynboll (Darmaprawira, 2002:158), the Javanese people have sufficient knowledge of colors as they have 11 color names which are as follows: *abang* (red), *biru* (blue), *dadu* (pink), *dragem* (brown), *ijo* (green), *ireng* (black), *kuning* (yellow), *putih* (white), *wilis* (light blue), *jingga* (orange), and *wulung* (purple or indigo). Based on the number of colors possessed by the Javanese language mentioned above, it can be concluded that the Javanese community can be classified as advanced in terms of technology because they have a rich vocabulary of colors (Malindra, 2011).

The Javanese language has unique and distinctive regional color names, including *coklat lemah teles* which is a brown color resembling wet soil, *kuning endhog* which is a color resembling the color of egg yolk, *abang bata* which is a red color resembling the color of the bricks, and *ijo lumut* which means green like moss, which is quite familiar to our ears. In addition, there are also colors used to indicate a very high and unique color intensity, such as *ijo royo-royo* which is a very bright green color, *abang branang* which is a very bright red color, *putih nemplak* to indicate a very smooth white color, and many other color names in Javanese language that are very interesting to study further (Malindra, 2011).

The Natural Semantic Metalanguage theory is used in this research to understand the detailed meaning behind each basic color in the Indonesian and Javanese languages. Indonesia's cultural diversity is a significant factor in identifying the differences in the understanding of color in each culture and language. This view is consistent with Wierzbicka, (2006)'s statement that some cultures and languages do not recognize the concept of color. For example, Bulmer's extensive research in Australia, Papua New Guinea, and Africa in Wierzbicka (2008)'s work found that some languages have no concept of color. This is supported by Hargrave's (1982) research, which concluded that five Aboriginal languages in Australia use only the concept of light and dark to denote colors. The NSM introduces theoretical principles for understanding Semantic Primes. These primes represent meanings that are inherent to humans from birth, cannot be paraphrased into simpler terms, and remain unchanged (Goddard, 2008). These meanings reflect the fundamental aspects of the human mind and are explicated from the deep structure, the only method for representing such meanings (Wierzbicka, 1996). The explication involves intuitively connecting words with similar focal meanings and analyzing these meanings based on their components.

Current research on the semantics of color focuses on exploring the idiomatic and metaphorical meanings associated with different hues. In a recent study, Wardana & Mulyadi (2022) investigated the primary and secondary colors used in Indonesia. The aim of their research was to analyze the meaning of colors using the Natural Semantic Metalanguage Theory. Their findings revealed that the six basic or primary colors in the Indonesian language are Black, White, Red, Yellow, Green, and Blue. Then, Ma & Kuang (2022) also do research regarding the Semantics meaning of colors and explore the linguistic and cognitive commonality hidden behind the "black" color terms in Chinese, English, and German from the perspective of typology. Their finding revealed that the semantic meanings of the color term "black" are organized around the two main nodes of "black color" and "darkness", and then such abstract meanings as "unawareness" and "concealed" are derived. Yulianti (2016) uses the Natural Semantic Metalingua (NSM) approach to describe the comparative of color between the Sundanese and Indonesian

Language. Based on this approach it revealed that the colours of Sundanese are classified into three categories, i.e., basic colours, natural condition, and adjective/adverb. Daulay & Mulyadi (2022) also do research regarding to semantic study of connotation of color in Mandailing language. The findings state basically, Mandailing culture recognizes 12 colors, namely red (*rara*), brown (*coklat*), gray (*abu-abu*), purple (*bunga torung*), orange (*pinang*), pink (*merah jambu*), green (*rata*), light green (*rata bulung pisang*), blue (*rata ombun*), white (*bontar*), black (*lomlom*) and yellow (*gorsing*). In terms of meaning the findings show that the color in the Mandailing language also has connotative meanings such as dysphemism and euphemism.

Further, Pansat and Khalikova (2023) explore the emotional nuances of the color "blue" in the Kazakh language, aiming to cognitively analyze its emotional tone within the conceptual field of color names, employing a linguistic and cognitive approach. Vejdemo et al. (2015) investigate the historical development of two pink categories in Western European languages, analyzing the impact of contact-induced lexical and conceptual change, focusing on the Evolution of Semantic Systems color project's contemporary experimental data. Another researcher, Müller et al. (2021) examines the emergence and evolution of the semantic structure of color terms in artificial language games, assessing the influence of participants' native language structures on artificial language communication, revealing a cognitive link between semantic structures and artificial language formation, particularly in English-speaking pairs. Jonauskaite et al. (2019) investigated the relationship between color choices and mood, challenging the idea of universal color-emotion associations. They experimentally induced participants' four moods—joy, relaxation, fear, and sadness—and found systematic associations between specific colors and moods. For instance, yellow hues were consistently linked to joy, while yellow-green hues were associated with relaxation. The study suggests that color choices somewhat reflect the felt mood, but the associations are not highly specific. In another study, Jonauskaite et al. (2019) investigated gender-related color preferences in both children and adults. Girls tended to favor pink/purple more than boys, while both genders commonly preferred blue. Women were more likely to favor red compared to men. Emotional associations with colors did not entirely explain these preferences, suggesting a complex interplay of factors in gendered color choices.

Despite these insightful studies, a notable research gap exists in understanding the specificities of basic color terms in Javanese and Indonesian languages, particularly within the framework of the NSM Theory. While existing research provides valuable insights into cross-cultural color semantics, there is a need for a focused exploration of how Javanese and Indonesian speakers conceptually perceive and categorize colors. Comparing color terms in Indonesian and Javanese languages is significant for several reasons. Firstly, Indonesia is a linguistically and culturally diverse country, with Javanese being one of the most widely spoken languages in the region. Understanding the differences and similarities in color semantics between these two languages can provide valuable insights into the linguistic and cultural dynamics of the Indonesian archipelago. Moreover, studying color in the Javanese language offers a unique opportunity to explore the influence of cultural and historical factors on color perception. Javanese culture has a rich heritage and tradition, with distinct cultural practices and beliefs that may shape how colors are perceived and categorized. Researchers can uncover the intricate relationship between language, culture, and individual experiences by examining color terms in the Javanese language. Furthermore, investigating the evolution of color terms in Javanese and Indonesian languages can contribute to a comprehensive understanding

of how languages adapt and change over time. By tracing the historical development of color terms, researchers can gain insights into the socio-cultural context in which these languages have evolved and the factors that have influenced their linguistic features. By combining these perspectives within the framework of the NSM Theory, researchers can delve deeper into the cultural and linguistic nuances of color perception. This comparative analysis enhances our understanding of linguistic diversity and highlights the intricate relationship between language, culture, and cognition. Overall, studying color semantics in Indonesian and Javanese languages offers a unique lens through which to explore cultural diversity, linguistic evolution, and cognitive processes, making it a significant area of research deserving further attention.

## Method

The research methodology employed in this study revolves around a qualitative approach, focusing on observing phenomena within societal contexts. This approach is particularly well-suited for exploring the intricate relationship between language and culture and the nuanced world of color terms.

Data were gathered from various sources, including official Indonesian dictionaries, as well as Javanese and Indonesian corpus data, namely LCC Indonesian 2022 and LCC Javanese corpus from CQP Web. The researcher conducted library research to explore primary data. According to George (2008), library research does not require respondents or informants, as the research itself identifies and defines the data. Bogdan and Taylor (1992) further suggest that researchers can shape descriptive data to complement information and elucidate social phenomena.

The data were purposively obtained by selecting primary and secondary colors in Indonesian and Javanese languages. Various sources were consulted, and the data were categorized into primary and secondary colors. Subsequently, the data were elucidated or rephrased to discern the semantic elements relevant to this study. Once classified, the data were presented in tabular form, offering a structured and visual overview of the color terms. This tabular representation aids in identifying patterns and variations in color perception across the two languages. Additionally, the data were elucidated or paraphrased to identify the semantic units forming the core of this research.

The researcher utilized Wierzbicka's (2008) theory of Natural Semantic Metalanguage (NSM) as the theoretical framework, emphasizing its role in understanding the cultural and linguistic nuances of color concepts. NSM posits that color concepts are not universal but are deeply rooted in specific cultural and linguistic contexts. The NSM framework guided the data analysis process, providing insights into the systematic approach employed to examine the cultural and semantic aspects of color concepts regarding basic and secondary color terms in Javanese and Indonesian languages. NSM facilitated a comprehensive exploration of the semantic intricacies inherent in these languages' color terminology.

## Results and Discussion

The Javanese language, spoken in Indonesia, has a unique and distinctive set of basic color terms that reflect the culture and traditions of its people. Based on the finding of this research, the researcher claims that Javanese has 10 basic colors that is: *Ireng* 'black', *Putih* 'white', *Abang* 'red', *Ijo* 'green', *Kuning* 'yellow', *Biru* 'blue', *Soklat* 'brown', *Wungu* 'purple', *Jambon* 'pink', and *Klawu* 'gray'. While Indonesia has 6 basic colors that is: *Hitam* 'black, *Putih* 'white', *Merah* 'red', *Kuning* 'yellow', *Hijau* 'green', and *Biru* 'blue'. The findings suggest that there are differences in the number and types of basic color terms

between the Javanese language and the Indonesian language. Javanese has a richer and more diverse set of basic color terms than Indonesian, which only has six. The difference may reflect Indonesia's cultural and linguistic diversity and the importance of color in Javanese culture and traditions.

The difference in basic color terms between Indonesian and Javanese languages can be attributed to their respective cultural and linguistic backgrounds. Indonesian basic colors adhere to Berlin and Kay's theory of basic colors. The theory states that a basic color term should be monolexemic, exclusive, unrestricted, and salient. This means that a color term should not contain another entity or be a combination of other colors. In Indonesian, *Coklat* 'brown' is not considered a basic color because it contains the specific things *Coklat* as "chocolate" and *Ungu* 'purple' is not a basic color because it is a combination of red and blue. *Merah Muda* 'Pink' and *Abu-Abu* 'grey' are also excluded as basic colors in Indonesian because they contain more than one lexeme or refer to another entity. Therefore, according to Berlin and Kay's hierarchy of basic colors, Indonesian basic colors are white, black, red, yellow, green and blue.

Meanwhile, the basic terms of Javanese color reflect the local culture and traditions. The inclusion of brown, purple, pink, and grey as basic colors in Javanese suggests that the Javanese people perceive and categorize colors differently from the Indonesian people. This highlights the importance of considering cultural and linguistic factors when studying color perception and categorization.

### *Basic Colors Explication in Javanese and Indonesian*

**Table 1**

*Black Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *temuireng* | ✓ | × |
| 2 | *uwi* | ✓ | × |
| 3 | *Areng/arang* | ✓ | ✓ |

X is black (Javanese) =

- When one sees things like X one can think of the *temuireng* 'type of spice herb'
- When one sees things like X one can think of the *uwi* 'yam'

X is black (Indonesian and Javanese) =

- When one sees things like X one can think of *areng* (Javanese) or *arang* (Indonesian) means charcoal.

**Table 2**

*White Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Kencur* | ✓ | × |
| 2 | *Mrica* | ✓ | × |
| 3 | *Endhog pitik/Telur* | ✓ | × |
| 4 | *Langit* | ✓ | × |
| 5 | *Kapur* | ✓ | × |
| 6 | *Pohon Kapuk* | × | ✓ |
| 7 | *Telur* | × | ✓ |
| 8 | *Beras* | × | ✓ |

X is white (Javanese) =
(a) at sometimes people see the plants that can be made into herbal medicine or spices.
- When one sees things like X one can think of *kencur* 'type of spice herb' at these times
- When one sees things like X one can think of *mrica* 'type of spices' at these times

(b) in some places there are *endhog pitik* 'chicken eggs'
- When people see these eggs, they can see these eggs white
- When one sees things like X one can think of this

(c) at the sometimes people can see *langit* 'the sky or a large space that lies above' them
- When one sees things like X one can think the clear sky

(d) in some places there are material that comes from nature
- When one sees things like X one can think of the *kapur* 'limestone'

X is white (Indonesian) =
(a) at sometimes people can see the *pohon kapuk* 'cotton tree'
- When one sees things like X one can think of the cotton at these times.

(b) in some places there are *telur* 'eggs'
- When people see these eggs, they can see these eggs white
- When one sees things like X one can think of this

(c) at sometimes people can see something grow from ground
- When one sees things like X one can think of *beras* 'rice'

**Table 3**
*Red Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Kates* | ✓ | × |
| 2 | *Lombok gedhe* | ✓ | × |
| 3 | *Geni* | ✓ | × |
| 4 | *Getih/Darah* | ✓ | ✓ |

X is red (Javanese) =
(a) at sometimes people can see kind of fruits
- when one sees things like X one can think of rambutan, watermelon, apple and *kates* 'papaya'

(b) at sometimes people can see vegetables
- when one sees things like X one can think of *lombok gedhe* 'red chilli'

(c) when one sees things like X one can think of *geni* 'fire'.

X is red (Javanese and Indonesian) =
- when one sees things like X one can think of the *getih* (Javanese) or *darah* (Indonesian) 'blood'

**Table 4**
*Yellow Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Langseb* | ✓ | × |
| 2 | *Emas* | ✓ | ✓ |
| 3 | *Kunyit* | × | ✓ |

X is yellow (Javanese) =
(a) at sometimes people can see kind of fruits
- when one sees things like X one can think of *langseb* 'langsat'

X is yellow (Javanese and Indonesian) =
- when one sees things like X one can think of the *emas* 'gold'

X is yellow (Indonesian) =
(a) at sometimes people can see something grow from ground
- when people see this X from the ground, they can see *kunyit* 'turmeric'

**Table 5**
*Green Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Pucuk Gedhang* | ✓ | × |
| 2 | *Godhong Bayem* | ✓ | × |
| 3 | *Walang Godhong* | ✓ | × |
| 4 | *Daun* | × | ✓ |

X is green (Javanese) =
(a) at sometimes people can see something grow from the ground
- when one sees things like X one can think of *pucuk gedhang* 'banana leaf'
- when one sees things like X one can think of *godhong bayem* 'spinach leaf'

(b) at sometimes people can see kind of animals
- when one sees things like X one can think of *walang godhong* 'grasshopper'

X is green (Indonesian) =
(a) at sometimes people can see something grow from the ground
- when people see this X from the ground, they can see *daun* 'leaf'

**Table 6**
*Blue Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Laut* | ✓ | × |
| 2 | *Langit* | ✓ | ✓ |

X is blue (Javanese)
- at sometimes people can see a particular expanse of saltwater that is partially enclosed by land.
- when one sees things like X one can think of *laut* 'sea'

X is blue (Javanese and Indonesian)

- At sometimes people can see the *langit* 'sky' above them
- when one sees things like X one can think of the blue color of the sky at these times.

**Table 7**

*Brown Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Waluh* | ✓ | × |
| 2 | *Gula Jawa* | ✓ | × |
| 3 | *Jenang Dodol* | ✓ | × |

X is brown (Javanese)

(a) at sometimes people can see something grow from the ground

- when one sees things like X one can think of *waluh* 'pumpkin'

(b) in some places there are foods and drinks

- when one sees things like X one can think of *gula jawa* 'palm sugar'
- when one sees things like X one can think of *jenang dodol* 'a sweet toffee-like sugar palm-based'

**Table 8**

*Purple Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Godhong Tela Pendhem* | ✓ | × |
| 2 | *Jantung Gedhang* | ✓ | × |
| 3 | *Anggrek* | ✓ | × |

X is purple (Javanese)

(a) at sometimes people can see something grow from the ground

- when one sees things like X one can think of *godhong tela pendhem* 'cassava vine leaves'
- when one sees things like X one can think of *jantung gedhang* 'heart of the banana or it is the part of the flowers which did not form into banana'
- when one sees things like X one can think of *anggrek* 'orchid'

**Table 9**

*Pink Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Mawar* | ✓ | × |

X is pink (Javanese)

(a) at sometimes people can see something like flower

- when one sees things like X one can think of *mawar* 'rose'

**Table 10**
*Grey Color in Javanese and Indonesian Language*

| No | Items | Javanese | Indonesian |
|---|---|---|---|
| 1 | *Semen* | ✓ | × |
| 2 | *Mega* | ✓ | × |

X is grey (Javanese)
(a) at sometimes people can see something like construction material for building
- when one sees things like X one can think of *semen* 'cement'

(b) at sometimes people can see the sky above
- when one sees things like X one can think of *mega* 'cloud'

**Discussion**

The findings above provide insights into the basic color terms in Javanese and their associated cultural and linguistic concepts. The analysis of Javanese basic color term 'black' shows that it is associated with two different concepts, namely the spice herb 'temuireng' and the yam 'uwi'. This finding reflects the cultural and linguistic specificity of Javanese basic color terms, which are shaped by the lived experiences and environment of the Javanese people.

Moreover, the finding that Javanese and Indonesian basic color term 'black' is associated with charcoal highlights the salience and universality of this concept across cultures. This is consistent with the NSM theory initiated by Wierzbicka (2006), which posits that basic color terms are grounded in perceptual and conceptual experiences of human beings and that some color terms have a high degree of salience and universality across cultures. Overall, the findings provide support for the NSM theory, which emphasizes the importance of cultural and linguistic context in shaping basic color concepts across cultures.

However, from the other researchers, the findings show that there are differences in how black color is conceptualised in different languages and cultures. In Sundanese, as described by Yulianti (2016), black color is associated with natural signs such as *hideung leutak* which means black mud, while in other studies conducted by Budiono (2016) there are three black color classifications, namely *item blek* (showing color), *item dop* (car parts) and *item manis* (face). Moreover, there are also significant differences in the meaning of black color in different contexts. In Daulay & Mulyadi (2022), for example, the black color in Mandailing language *lomlom* may have positive or negative meaning. The black color *lomlom* is considered handsome, which is a positive meaning, while in other contexts, black is associated with dirtiness and negativity. In Sundanese, the black color means sadness, injustice, ugliness, and courage (Fauzi et al., 2021). The differences between the findings of the previous researchers confirm the opinion of Wierzbicka (1990) that the concept of color in various languages can vary greatly. This highlights the importance of understanding the cultural and linguistic context when interpreting the meaning of color terms.

Javanese people have a wide range of associations with the color white. They associate it various natural elements such as herbs, spices, chicken eggs, and limestone. When they see herbs and spices, they think of *kencur* and *mrica* respectively. These associations with white might be due to the fact that these natural elements are often white in color. It means that the Javanese people are closely connected to their surrounding environment in the process of naming colors. It suggests that their

environment and natural elements play a significant role in shaping their language and perception of colors.

On the other hand, in Indonesian, the color white is associated with cotton trees, eggs, and rice. This could be due to the fact that cotton trees produce white cotton, egss are often white, and rice is a staple food that is usually white when cooked. It means that Indonesian use references for white color with something that are familiar elements in daily life. White is also associated with various meanings in Indonesia, such as clarity, purity, and success. These meanings are further supported by the findings of Fauzi et al., (2021), who explored the meanings of colors in Sundanese language using Semantics Metaphor approach. Although this study did not utilize the NSM theory, it revealed a broader perspective on the meaning of colors through the use of metaphors. These findings suggest that the naming and interpretation of colors are highly contextualized and influenced by the cultural and conceptual background of the language users.

The Javanese culture has a rich tradition of using natural elements to denote colors, and the color red is no exception. The color red is associated with various fruits such as rambutan, watermelon, apple, and papaya, as well as vegetables such as red chili. These associations are likely due to the fact that these fruits and vegetables have a prominent red color in their appearance. The phenomenon of associating colors with natural elements also exists in some languages in Indonesia, such as Sundanese. In Sundanese, Yulianti (2016) states the color red is associated with natural attributes such as *merah ati* (maroon), and *merah cabe rawit* (red chilli) same with Javanese. This finding supports the idea that colors are not just a product of human perception but are also influenced by the environment and cultural contexts.

Furthermore, the Javanese also associate the color red with fire, which is another natural element that is commonly found in their surroundings. The color red is often used to describe the intensity and heat of fire. The argument regarding the Javanese association of the color red with fire aligns with the broader concept mentioned in the argument Lorentz et al., (2016) about the association of temperature concepts with colors. In the case of the Javanese culture, the color red being associated with the intensity and heat of fire exemplifies the common correlation between colors and temperature concepts. Specifically, red is seen as "hot" in this cultural context, mirroring the notion that red represents high temperatures.

This association is in line with the idea that there is a connection between specific colors and temperature perceptions, as indicated by Lorentz et al., (2016). It illustrates a unidirectional influence, where the color red influences the perception of "hot" or high temperature. In this context, the Javanese culture's use of red to signify the intensity and heat of fire is an example of how color symbolism can influence the perception of temperature, reinforcing the notion that red is associated with "hot" or high temperature. Red in Javanese may also represent danger or warning. In Javanese culture, fire is often associated with spiritual or mystical beliefs and it is believed to have transformative powers.

In both Javanese and Indonesian languages, the color red is associated with blood, which is a universal association with red color across cultures. It is interesting to note that the association with blood is consistent across both languages, indicating a shared cultural and biological understanding of significance of the color red. This association is likely due to the fact that blood is a universal aspect of human experience and has a strong emotional and cultural significance in many societies.

In Javanese, the color yellow is associated with the langsat fruit, which has a yellowish hue when ripe. On the other hand, in both Javanese and Indonesian, the color

yellow is strongly associated with the concept of gold, which is highly valued in many cultures and often symbolizes wealth and prosperity. In many cultures, gold is viewed as a valuable commodity and a sign of social status, power, and luxury. Therefore, the color yellow, which is reminiscent of the color of gold, also comes to represent these concepts.

In Indonesian, the color yellow is also associated with the turmeric plant, which is commonly used in traditional medicine and cooking. The association is likely due to the fact that the roots of the turmeric plant have a distinctive yellow color, which is commonly used as a natural dye and colorant. Another study in Sundanese by Fauzi et al., (2021) stated that in Sundanese language associates the color of yellow with the sun and its life-giving warmth. It is also used as a cautionary color, commonly seen in traffic warning signs and signals. Yellow is also associated with optimism and the cheerfulness of a sunny day. These associations demonstrate how different languages and cultures conceptualize colors differently based on their unique experiences and perceptions of the world around them. The NSM theory helps to explain this phenomenon by highlighting how linguistic categories are grounded in human experience and organized based on cultural and cognitive criteria.

The NSM Theory suggests that the meanings of words are grounded in human experience and cultural practices. In the case of the color green in Javanese and Indonesian, the associations with specific objects like banana leaves, spinach leaves, and grasshoppers suggest that the concept of green is tied to the physical environment and the everyday experiences of people in these cultures. In Javanese, the associations with plants and animals demonstrate how the color green is used to categorize and understand different aspects of the natural world. In Indonesian, the association with leaves specifically suggests a focus on the appearance and characteristics of foliage.

In Javanese, the color blue is associated with a particular expanse of saltwater that is partially enclosed by land, and is referred to as *laut* or sea. Similarly, in both Javanese and Indonesian, the color blue is associated with the sky above. These associations can be explained by the fact that both the sea and the sky have a blue hue, which is noticeable to human perception. The associations between the color blue and the sea and sky in Javanese and Indonesian languages reflect the importance of these natural elements in the daily lives and cultural practices of these societies.

The concept of the color brown in Javanese language is associated with various things that are linked to people's everyday experience and cultural practices. One way that brown in conceptualized is through the growth of certain plants, such as the *waluh* or pumpkin, which have a distinctive brown color when ripe. This association with plant growth reflects the importance of agriculture and farming in Javanese culture and the relationship that people have with the land.

Another way that brown is associated in Javanese is through the presence of certain foods and drinks, such as gula jawa or palm sugar, and *jenang dodol*, a sweet toffee-like sugar palm-based snack. These foods are commonly consumed and are an important part of Javanese culinary traditions. The use of brown in these contexts reflects the cultural significance of food and the role it plays in social and religious practices. Overall, the Javanese concept of brown is grounded in people's experiences of the natural world and their cultural practices. This demonstrates how language is not just a set arbitrary symbol but is shaped by the social, cultural, and environmental contexts in which it is used. The NSM theory emphasizes the importance of these contextual factors in shaping linguistic categories and concepts, highlighting the complex and dynamic relationship between language and culture.

The associations between the color purple with plants and flowers in Javanese such as cassava vine leaves, heart of the banana, and orchids reflect the importance of these plants in the daily lives and cultural practices of this society. In Javanese culture, cassava is a staple food that is used to make variety of dishes such as chips, crackers, and even cakes. The leaves of the cassava plant are also used in cooking, and they have a distinct purple color. Therefore, the Javanese have a concept of purple that is associated with cassava vine leaves. The heart of the banana is considered a delicacy in Javanese cuisine, and it is often used in traditional dishes such as *gudeg*, which is a sweet and spicy stew made from young jackfruit, coconut milk, and spices. The heart of the banana has a distinctive purple color, and therefore, the Javanese have a concept of purple that is associated with this part of the banana. Orchids are highly prized in Javanese culture for their beauty and are often used in traditional ceremonies and decorations. The Javanese have a concept of purple that is associated with orchids, which have a wide range of colors including purple.

In Javanese language, the color term 'pink' is associated with the appearance of flowers, particularly roses. This association between the color pink and the rose reflects the importance of flowers, and roses in particular, in Javanese culture. Flowers, especially roses, are highly valued for their beauty, fragrance, and symbolic meaning. They are often used in traditional ceremonies, such as weddings and funerals, and also given as gifts on special occasions. The use of roses as an example of pink in Javanese also reflects the importance of local flora and fauna in shaping the language and culture of a society. The Javanese people have a deep appreciation for nature and the beauty of the world around them, and this is reflected in their language. Color terms like pink are not just arbitrary labels, but rather are deeply connected to the natural world and the cultural practices of the Javanese people.

In NSM Theory, the meaning of a color term is closely related to physical environment and cultural practices of a society. In the case of Javanese, the color term grey is associated with two different contexts. First, in the context of construction materials for building, people may think of cement when they see something grey. This association reflects the importance of construction in Javanese society and the use of cement as a common building material. Second, in the context of the sky, people may think of clouds (mega) when they see something grey. This association is related to the physical environment of the region, where clouds are a common sight in the sky. This association may also reflect the significance of the weather and natural environment in Javanese culture, where agriculture and other activities are heavily influenced by weather patterns and climate. These associations between grey and cement, and grey and clouds in Javanese language show how color terms reflect the cultural and physical contexts of a society. They also highlight the importance of cultural and environmental factors in shaping language and the meanings attached the color terms.

## Conclusion

This research has provided an elaboration and explication of color terms in Javanese and Indonesian using the Natural Semantic Metalanguage (NSM) theory. The distinction between the two languages is evident, with Javanese boasting a richer palette of ten basic color terms, including *Ireng* 'black', *Putih* 'white', *Abang* 'red', *Ijo* 'green', *Kuning* 'yellow', *Biru* 'blue', *Soklat* 'brown', *Wungu* 'purple', *Jambon* 'pink', and *Klawu* 'gray'. While Indonesia has 6 basic colors that is: *Hitam* 'black, *Putih* 'white', *Merah* 'red', *Kuning* 'yellow', *Hijau* 'green, and *Biru* 'blue'. The Javanese language has a richer and more

diverse set of basic color terms compared to Indonesian, which adheres to Berlin and Kay's theory of basic colors.

This divergence between Javanese and Indonesian in their basic color terms implies distinct perceptions and categorizations of colors by the respective communities. The inclusion of brown, purple, pink, and gray as basic colors in Javanese reflects a unique color categorization not found in Indonesian, suggesting a nuanced interplay between language and cultural contexts.

Analyzing the associations between colors and natural elements or phenomena in Javanese and Indonesian, it becomes apparent that these color terms are deeply rooted in the physical environment and cultural practices of the societies. For example, the connection between the color blue and the sea and sky in both languages mirrors the significance of these natural elements in their daily lives and cultural practices. Similarly, the association of green with plant growth and certain animals, and brown with earthy tones and natural materials like pumpkin and palm sugar, further demonstrates the influence of the environment on color categorization.

The NSM Theory by Wierzbicka (1999) serves as a valuable lens for explaining these associations, emphasizing the use of simple and universal concepts to describe complex phenomena. The theory posits that linguistic categories are grounded in the physical and cultural environments of the societies using those languages. Therefore, the associations between color terms and objects or phenomena in Javanese and Indonesian are not arbitrary but reflect the specific experiences and practices of these societies. Both languages use attributes related to nature, natural phenomena, vegetation, body parts and something that are familiar elements in their daily life to explicate the concept of colors within the semantic framework. Overall, the associations between colors and their corresponding objects or phenomena in Javanese and Indonesian language provide a unique perspective on how language and culture intersect, and how linguistic categories are shaped by the physical and cultural environments in which they are used. Furthermore, the study highlights the importance of cross-disciplinary research to better understand the concept of colors, which is a crucial part of language and culture. This research adds to the existing literature on color terms and NSM theory, and opens up possibilities for future studies on the topic.

While this research contributes significantly to the understanding of color terms and NSM theory, it is not without limitations. One limitation is the focus on Javanese and Indonesian, and the findings may not be universally applicable to all languages and cultures. Additionally, the study does not delve into the historical evolution of color terms in these languages, which could provide valuable insights.

For future research, it is recommended to explore the historical development of color terms in Javanese and Indonesian, considering how these terms may have evolved over time. Comparative studies with other languages in the region can also enrich our understanding of color categorization across diverse cultures. Furthermore, interdisciplinary research involving linguistics, cultural studies, and psychology could provide a more comprehensive exploration of the intricate relationship between language, culture, and color perception.

## References

Abbott, J. T., Griffiths, T. L., & Regier, T. (2016). Focal colors across languages are representative members of color categories. Proceedings of the National Academy of Sciences of the United States of America, 113(40), 11178–11183.

https://doi.org/10.1073/pnas.1513298113
Berlin, B., & Kay, P. (1969). Basic Color Terms: Their Universality and Evolution. The University of California Press.
Biggam, C. P. (2012). The Semantics of Colour: A Historical Approach. Cambridge University Press.
Bogdan, R. C., & Taylor, S. J. (1992). Pengantar Metode Penelitian Kualitatif, Terjemahan oleh Arief Ruchan. Usaha Nasional.
Budiono, S. (2016). Klasifikasi Warna Masyarakat Betawi di Madura, Jakarta Utara. Sirok Bastra Jurnal Ilmiah Kebahasaan Dan Kesastraan, 4(2), 101–110.
Darmaprawira, S. (2002). Warna: teori dan kreativitas penggunaannya edisi ke-2. Penerbit ITB.
Daulay, E., & Mulyadi. (2022). Color in Mandailing Language: A Semantic Study of Connotation. Lakhomi Journal Scientific Journal of Culture, 3(2), 39–48. https://doi.org/10.33258/lakhomi.v3i2.682
Fauzi, M. I., Khasanah, N., & Pavita, M. D. A. (2021). The Concept of Color Metaphor In Sundanese: A Semantic Cognitive Study. Lensa: Kajian Kebahasaan, Kesusastraan, Dan Budaya, 11(1), 33. https://doi.org/10.26714/lensa.11.1.2021.33-41
George, M. W. (2008). The Elements of Library Research. Princenton University Press.
Goddard, C. (2008). NAtural Semantic Metalanguage:The state of the art. In C. Goddard (Ed.), Cross-Linguistic Semantics (pp. 1–34). John Benjamins Publishing Company. https://doi.org/10.1075/slcs.102.05god
Hadi, S. (2004). Metodologi Research. Andi.
Jonauskaite, D., Althaus, B., Dael, N., Dan-Glauser, E., & Mohr, C. (2019). What color do you feel? Color choices are driven by mood. Color Research and Application, 44(2), 272–284. https://doi.org/10.1002/col.22327
Jonauskaite, D., Dael, N., Chèvre, L., Althaus, B., Tremea, A., Charalambides, L., & Mohr, C. (2019). Pink for Girls, Red for Boys, and Blue for Both Genders: Colour Preferences in Children and Adults. Sex Roles, 80(9–10), 630–642. https://doi.org/10.1007/s11199-018-0955-z
Jonauskaite, D., Parraga, C. A., Quiblier, M., & Mohr, C. (2020). Feeling Blue or Seeing Red? Similar Patterns of Emotion Associations With Colour Patches and Colour Terms. I-Perception, 11(1). https://doi.org/10.1177/2041669520902484
Lakens, D., Fockenberg, D. A., Lemmens, K. P. H., Ham, J., & Midden, C. J. H. (2013). Brightness differences influence the evaluation of affective pictures. Cognition and Emotion, 27(7), 1225–1246. https://doi.org/10.1080/02699931.2013.781501
Lorentz, E., Ekstrand, C., Gould, L., & Borowsky, R. (2016). Red-hot: How colour and semantic temperature processing interact in a Stroop-like paradigm. Visual Cognition, 24(2), 173–181. https://doi.org/10.1080/13506285.2016.1183742
Ma, Y., & Kuang, L. (2022). The Semantics of "Black" in Chinese, English, and German: A Colexfictional Analysis. International Journal of English Linguistics, 13(1), 74. https://doi.org/10.5539/ijel.v13n1p74
Malindra, E. (2011). Pola Penamaan Warna dalam Bahasa Jawa Analisis Struktur dan Makna. Universitas Indonesia.
Müller, T. F., Winters, J., Morisseau, T., Noveck, I., & Morin, O. (2021). Colour terms: native language semantic structure and artificial language structure formation in a large-scale online smartphone application. Journal of Cognitive Psychology, 33(4), 357–378. https://doi.org/10.1080/20445911.2021.1900199
Ou, L. C., Yuan, Y., Sato, T., Lee, W. Y., Szabó, F., Sueeprasan, S., & Huertas, R. (2018). Universal models of colour emotion and colour harmony. Color Research and

Application, 43(5), 736–748. https://doi.org/10.1002/col.22243

Pansat, Z., & Khalikova, N. (2023). Semantic Features of Color in Emotional, Expressive Words: The Concept of "Blue" in the Kazakh Language. International Journal of Society, Culture and Language, 11(2), 85–93. https://doi.org/10.22034/ijscl.2023.556420.2676

Specker, E., Leder, H., Rosenberg, R., Hegelmaier, L. M., Brinkmann, H., Mikuni, J., & Kawabata, H. (2018). The universal and automatic association between brightness and positivity. Acta Psychologica, 186(April), 47–53. https://doi.org/10.1016/j.actpsy.2018.04.007

Vejdemo, S., Levisen, C., van Scherpenberg, C., Gudmundsdóttir Beck, tórhalla, Næss, Å., Zimmermann, M., Stockall, L., & Whelpton, M. (2015). Two kinds of pink: Development and difference in germanic colour semantics. Language Sciences, 49(March 2016), 19–34. https://doi.org/10.1016/j.langsci.2014.07.007

Wardana, M. K., & Mulyadi, M. (2022). How Indonesian sees the colors: Natural semantic metalanguage theory. JOALL (Journal of Applied Linguistics and Literature), 7(2), 378–394. https://doi.org/10.33369/joall.v7i2.21035

Wierzbicka, A. (1990). The meaning of color terms: Semantics, culture, and cognition. Cognitive Linguistics, 1(1), 99–150. https://doi.org/10.1515/cogl.1990.1.1.99

Wierzbicka, A. (1996). Semantics: Primes and Universals. Oxford University Press.

Wierzbicka, A. (2006). The semantics of colour: A new paradigm. In C. P. Biggam & C. J. Kay (Eds.), Progress in Colour Studies: Volume I. Language and culture (Vol. 1, Issue December, pp. 1–24). John Benjamins Publishing Company. https://doi.org/10.1075/z.pics1

Wierzbicka, A. (2008). Why there are no "colour universals" in language and thought. Journal of the Royal Anthropological Institute, 14(2), 407–425. https://doi.org/10.1111/j.1467-9655.2008.00509.x

Witzel, C. (2019). Misconceptions About Colour Categories. In Review of Philosophy and Psychology (Vol. 10, Issue 3). Review of Philosophy and Psychology. https://doi.org/10.1007/s13164-018-0404-5

Yulianti, S. (2016). Kosakata Warna Bahasa Sunda (Pendekatan Metabahasa Semantik Alami). Ranah: Jurnal Kajian Bahasa, 5(1), 76. https://doi.org/10.26499/rnh.v5i1.39