

Determining Color Associations: an Empirical Approach

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Abstract:

This article discusses methods for determining color associations based on empirical experience. Associative experience is a significant method in contemporary linguistic studies, allowing for insight into human consciousness and the subconscious processes of thought.

Keywords: color association, linguistic consciousness capabilities, associativity, associative experience method, "Educational Corpus of the Uzbek Language," level of activity, response reaction.

Introduction

Since the mid-20th century, linguistics has effectively utilized the associative experience method to determine the capabilities of human linguistic consciousness, verify knowledge of language units, and identify associations related to specific lexical units. This method has proven essential in revealing the reserve of lexical units and the associations that arise concerning certain lexical items. Notably, the associative experience method was first practically applied by renowned English psychologist F. Galton in the 1970s. He conducted the experiment on himself to ascertain what associations arise in the mind concerning specific words **[1]**. Today, this experimental method is actively used not only in psychology but also in linguistics, pedagogy, and medicine.

Methodology

In linguistics, this method is crucial for determining the associative nature of language units. As N.V. Yefimenko acknowledges, associative experience primarily focuses on identifying associations based on past experiences of language users and is recognized as the most effective method for studying the essence of language units. Furthermore, the simplicity of this method and its applicability without specialized equipment provide opportunities for obtaining data from

individuals of various ages [2] . The publication of materials from free associative experiences allows for comparative research on data obtained in experiments.

The associative experience method is particularly significant in determining how associations arise among language users concerning color and hue-expressing words. It is essential for assessing the level of understanding of the semantic characteristics of hue-expressing words, identifying external factors that generate associations with these words, and establishing the degree of connection between associations and factors such as the age, gender, nationality, and social status of language users.

This method enables the identification of individual, private, as well as collective, general forms of color associations. Associative experiments facilitate the comparison of color perceptions across different nations, helping to ascertain national perspectives and attitudes towards colors. A.A. Leontyev acknowledges that the associative experience method is considered a technique that allows for a comprehensive unveiling of the national and cultural characteristics of language units [3] .

Results and Discussion

Indeed, collective associations identified through associative experiments reveal the national and cultural values, national consciousness, and life experiences of individuals acquired in society. This phenomenon is also evident in the collective response reactions to colors in associative experiments. Such responses reflect how members of the linguistic community perceive colors, their knowledge about colors, and their attitudes toward customs and traditions related to colors. Thus, there is a high potential for identifying members of the linguistic community's perceptions and national-cultural attitudes towards colors through collective associations.

Three main types of associative experiments are noted in linguistics. The most commonly used method is the free associative experience method. This type of experiment can be conducted with the most active hue-expressing words (white, black, red, yellow, green, blue, gray, brown, pink, purple, etc.) or with specific color-indicative words. According to this method, participants record the first word that comes to mind upon hearing a color-expressing word as a response. Such experiments can yield the following results:

1. Identification of the associations formed by language users regarding hue-expressing words;
2. Determining the level of understanding of hue-expressing words and the imagery associated with colors;
3. Clarifying the semantic properties of hue-expressing words;
4. Establishing the attitudes of language users towards colors;
5. Clarifying aspects related to colors in the context of folk culture and prevalent customs and traditions in society, and more.

Free associative experiments are relatively easier to conduct than other types of experiments. Therefore, they are also effectively used in compiling associative dictionaries of various languages today. Free associative experiments can involve numerous participants. The greater the number of participants in the experiment, the more varied the responses regarding hue-expressing words can be obtained. Such responses assist in assessing an entire nation's perceptions of colors and their attitudes towards them. Results from experiments conducted on a limited number of participants cannot generalize the color associations of a specific nation. Only through collective free associative experiments can the associative meanings of hue-expressing words be determined.

In this study, the free associative method was used to identify the associations formed by Uzbek language users concerning hue-expressing words. A list of hue-expressing words was compiled before conducting the experiment. This list aimed to identify the hue-expressing words actively used in speech. The activity level of these words was determined using the "Educational Corpus of the Uzbek Language" [8] .

According to the results of this linguistic corpus, the activity level of hue-expressing words appears as follows:

Results of the Search for Hue-Expressing Words in the
"Educational Corpus of the Uzbek Language"

Hue-Expressing Words	Search Results in the "Educational Corpus of the Uzbek Language" [9]
1. White	37,277
2. Black	28,645
3. Red	23,576
4. Green	20,256
5. Blue	8,932
6. Yellow	7,961
7. Light Blue	2,000
8. Pink	1,451
9. Brown	942
10. Chestnut	786
11. Dark/ Dark Red	401
12. Teal	32 / 347
13. Light Red	365
14. Crimson	222
15. Blackish	139
16. Fire Red	137
17. Cream	48
18. Peach	31
19. Pistachio	13
20. Grayish	1
21. Olive Green	-

Based on the results determined by the "Educational Corpus of the Uzbek Language," the following 14 most frequently used words were selected as stimulus words for the associative experiment: white, black, red, green, blue, yellow, light blue, pink, brown, chestnut, dark/dark red, teal, light red, and crimson.

It is important to note that we cannot completely ascertain the activity level of hue-expressing words in the Uzbek language based solely on the results from the "Educational Corpus of the Uzbek Language." This is due to the inclusion of compound words, derived words, and words with metaphorical meanings associated with hue-expressing words during the search process. Such a search system encompasses a large amount of linguistic material, allowing for rapid identification of the words used.

Conclusion

In conclusion, the associative experience method proves to be a vital tool in understanding color associations in the context of cultural perceptions and linguistic expressions. Future research could

expand on these findings by exploring additional linguistic dimensions and comparing them across different cultures.

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