



**Experimental Data On English And French Colour Associations And Some  
Gender Differences In Their Perception**

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**ABSTRACT**

A psycholinguistic experiment carried out in this study allowed us to study the question of colour naming in the English and French languages from the native speakers' points of view. The results show that the colour perception in both languages has quite a big number of similar characteristics, even though some colour names show some national and cultural specificity. The exceptions are some co-meanings.

The main conclusion which can be done on the basis of the study is the impact of society, life conditions and national character.

In this study we were also interested by the question of the difference in colour perception from the position of gender.

Basing on the analysis of gender differences we can notice that the female associative series is much wider than that of the male one. Speaking of positivity of perception and associations we have to notice that women's answers are more positive than men's.

However, the male respondents' associations can be characterized as neutral rather than negative. The study confirms the existence of the difference in colour perception from the position of gender differences, which can be explained by differences in the social roles of men and women in the cultures of the examined languages.

**Key words:** colour names, psycholinguistics, experiment, associations, gender differences



## **1. INTRODUCTION**

Studies have shown that the colour concepts, colour naming, the connection between concepts and designations depend on different systems of our brain (Timko 2011, 24; Rogulina 2006, 36; Sokolova 2016, 19). Thus, the colour language of a human being depends on his mentality. That is why each colour has its own sense for different cultures. As the linguists Ostroumova, O.F, Nizamieva, L.R., Nazarova, G.I. fairly state “mastering a foreign language as a means of intercultural communication is impossible without the knowledge of the socio-cultural and sociolinguistic characteristics of the target language country” (Ostroumova, Nizamieva & Nazarova 2014, 79). The formation of the polylingual personality occurs not only in the process of learning a language but also as a result of the exposure to the culture of the people who speak the language (Subich, Mingazova & Zakirov 2016, 177).

The symbolism of a colour bases on certain objective features of a mind, on different associations, often quite simple ones: ‘green’ – nature, awakening or hope; ‘blue’ – sky, sea, purity; ‘black’ – fear, darkness, suspense, death; ‘red’ – fire and blood; ‘yellow’ – sun and life (Clare, Wierzbicka 2008, 408).

In the present paper we also study if there are any gender differences on the level of figurative and associative colour perception.

In the last few years some works in which the authors tried to describe a language from the position of gender difference have appeared, an abstract model has been formed and approaches to the question of gender in linguistics have been systematized.

According to A. Sadovaya, in Western culture there are three main principal approaches:

1. The first approach is dedicated to the interpretation only of the social nature of male and female language. It is focused on finding the linguistic features which can be explained by the distinctive features of reappointment of the social power in society. It is important to notice that at the same time “male” or “female” language is defined as a derivative from the main language used when the interlocutors are on different levels of social hierarchy.



2. The second approach is sociopsycholinguistic. In this approach the “male” and “female” languages are shortened to the distinctive features of gender behavior from the scientific point of view. For the researchers studying this area statistical indicators are fundamental, they form the basis for the building of psycholinguistic theories of female and male types of speech behavior.

3. In the third approach the emphasis is on the cognitive aspect of the differences in language behaviour of genders. For the representatives of this area the organization of holistic linguistic models of cognitive main language categories is important (Sadovaya 2007, 109).

It is important to notice that the three approaches described above are complementary and have explanatory power only in combination with each other.

An excellent example of a study in this area is a work of D. Tannen “You just don’t understand. Women and men in conversation”. The authors examines communication failures depending on gender and gives her opinion on this question.

She thinks that the main differences in communication between representatives of both genders are explained by the difference in requests made by society towards each of them. She also notices that specificity in socialization has a major impact on the behavior during communication mostly in single-sex group of children and adolescents.

D.Tannen says that speech behavior of women supposes emotionality, compliance, unconflictiveness, whilst society awaits for achievement and maintaining independence and successfulness from men. These differences lead to differences in communication goals (Tannen 1996, 311).

## **2. METHODS**

We have conducted an experiment to reveal the connotative meanings of the 10 most common colour names of English and French which, according to B.Berlin and P.Kay (Berlin & Kay 1969, 18), are considered to be universal.

Comparative analysis includes the study of colour names in the context of three aspects:

1. Making a hierarchical system of color names in terms of stability and the number of connotations.
2. Identifying their prevailing emotive charges.
3. Analysis of the values of individual colours.



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The research conducted has shown that between the systems of colour identification of English and French there exists both general correlation with the colour spectrum and specific values having a national character.

The survey involved 100 people: native speakers of English (England, America) and French (France, Belgium and Switzerland), both sexes aged 18 to 50 years.

The interviewees were suggested a questionnaire in the form of a survey, at the top of which 10 colour names were indicated. Respondents were asked to record the first associations with each of the 10 colours mentioned.

In Table 1 there are 10 words which are colour names. The first column shows the total number of connotative charges of each colour identification, in the second column the number of basic, most significant and stable connotative values are represented (values which were indicated by the majority of respondents).

**Table 1. The quantitative ratio of the connotative values of 10 colour names in English and French.**

English			French		
Colour names	Connotative charges		Colour names	Connotative charges	
	Total number of meanings	Number of basic meanings		Number of basic meanings	Количество основных значений
Black	10	3	Noir	11	3
White	11	3	Blanc	10	4
Green	7	1	Vert	6	1
Blue	8	2	Bleu	6	2
Pink	6	2	Rose	7	2
Orange	4	1	Orange	5	1
Red	17	2	Rouge	11	3
Grey	4	1	Gris	9	2
Purple	3	1	Violet	8	1
Yellow	5	1	Jaune	8	2



In Table 2 we present information on the dominant emotive values of each of the ten colour naming of English and French.

**Table 2. Quantitative correlation of emotive values of 10 colour names of English and French**

	English								French							
	t.n	+	-	n.m	m.m	+	-	n.m	t.n	+	-	n.m	m.m	+	-	n.m
Black	10	2	7	1	3	0	3	0	11	3	1	7	3	0	0	3
White	11	9	0	3	3	3	0	0	10	2	5	3	4	0	3	1
Green	7	4	1	2	1	1	0	0	6	4	0	2	1	1	0	0
Blue	8	6	1	1	2	2	0	0	6	2	1	3	2	2	0	0
Pink	6	2	1	3	2	2	0	0	7	5	0	2	3	3	0	0
Orange	4	2	1	1	1	1	0	0	5	4	0	1	1	0	0	1
Red	17	7	4	6	2	1	0	1	11	5	4	2	3	1	1	1
Grey	4	1	2	1	1	0	1	0	9	2	2	5	2	0	0	2
Purple	3	2	0	1	1	1	0	0	8	3	3	2	1	1	0	0
Yellow	5	4	0	1	1	1	0	0	8	5	1	2	2	2	0	0

t.n. – total number of co-meanings;

m.m.. –number of basic co-values;

n.m. – neutral co-meanings / with a dual interpretation.

The experiment with native speakers of English and French described above, in which connotative values of 10 colour names (black, white, green, blue, pink, orange, red, gray, purple, yellow) were identified, combines linguistic and psychological analysis. It is also significant in studying of gender aspect of colours.

We analyzed the information of the questionnaire from the position of the sexes of the respondents as well and the nature of their responses.



The results of the analysis are presented in Table 3, in which for each colour naming the number of connotative values is shown depending on their gender,.

**Table 3. The coefficient of gender differences in colour perception at the figurative-associative level among native speakers of English and French**

English			French		
	male	female		Male	female
Black	0,7	0,3	Noir	0,45	0,55
White	0,45	0,55	Blanc	0,67	0,33
Green	0,43	0,57	Vert	0,33	0,67
Blue	0,5	0,5	Bleu	0,5	0,5
Pink	0,7	0,3	Rose	0,43	0,57
Orange	0,5	0,5	Orange	0,2	0,8
Red	0,47	0,53	Rouge	0,45	0,55
Grey	0,5	0,5	Gris	0,3	0,7
Purple	0,3	0,7	Violet	0,5	0,5
Yellow	0,4	0,6	Jaune	0,5	0,5

### 3. RESULTS

The results of the analysis presented in Table 1 demonstrate that English colour names can be divided into 5 groups depending on the common number of connotative meanings:

- 1) red, white and black;
- 2) blue, green;
- 3) pink, yellow;
- 4) grey, orange;
- 5) purple.

In the French language the picture looks different. The colour names can be also divided into 5 groups depending on the number of basic meanings, but they noticeably differ from the similar ones in English:

- 1) noir «black», rouge «red», blanc «white»;



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- 2) gris «grey», jaune «yellow», violet «violet»;
- 3) rose «pink»;
- 4) vert «green», bleu «blue»;
- 5) orange «orange».

In the first group there are:

- 1) in English: red (17 co-meanings), white (11 co-meanings) and black (10 co-meanings);
- 2) in French: noir «black» (11 co-meanings), rouge «red» (11 co-meanings), blanc «white» (10 co-meanings).

The first group in the English language coincides in composition with the French language, but the most significant one in English is 'red', whilst in French it is noir 'black'.

Since ancient times the 'red' colour red has been connected to fire. It enchants you with secret and scares you with danger at the same time. Provided that externally fire is perceived closer to the colours of 'yellow' and 'orange', in the minds of native English speakers the 'red' colour symbolizes exactly the element of fire. This colour ignites and increases the energy of passion and love in your mind.

The 'black' colour in France has gained a hint of luxury, as well as in the rest of Europe, but it also has saved its negative meaning. It scares you with its uncertainty, secret, but at the same time this colour tries to save its power by all means.

In the second group:

- 1) in the English language: blue (8 co-meanings), green (7 co-meanings);
- 2) in the French language: gris «grey» (9 co-meanings), jaune «yellow» (8 co-meanings), violet «violet» (8 co-meanings).

So it can be noticed that the colour names in the second group in English do not correspond with the ones in French. If we talk about the colour perception of two cultures, it is hard to find something in common in the colour names.

However, some parallel can be established between the the colour names. In the English language some shades of 'green' symbolize cowardice, sickness, whilst in the French language similar associations can be brought up by 'jaune' (yellow).



‘Gris’ (grey) in the French language is said to be a boring colour, being connected to yearning, bad weather, whilst in the English language sadness is symbolized by the ‘blue’ colour.

In the third group there are:

- 1) in the English language: pink (6 co-meanings), yellow (5 co-meanings);
- 2) in the French language: rose «pink» (7 co-meanings);

Native speakers of the two languages have formed similar meanings to the words ‘pink’ and ‘rose’, which denote the same colour in both languages, and the main one was “femininity”.

For understanding the symbolism of perception of the colour names “pink” and “rose” it is enough to remember the English expression «to see through pink-colored glasses» and an identical one in French «voir la vie en rose»..

In the fourth group there are:

- 1) in the English language: grey (4 co-meanings), orange (4 co-meanings);
- 2) in the French language: vert «green» (6 co-meanings), bleu «blue» (6 co-meanings).

In the last fifth group:

- 1) in the English language: purple (3 co-meanings);
- 2) in the French language: orange «orange» (5 co-meanings).

One colour name from each language having caused the greatest number of difficulties among the respondents is in this group.

The results presented in Table 2 demonstrate that with the increase of number of basic co-meanings the character of the emotive meanings varies.

As it can be seen from Table 3 women have indicated more answer options than men.

Some patterns were found after more detailed analysis:

In the English language:

- 1) While detecting connotative meanings it can be noticed that men and women have similar associations and, therefore, give almost the same number of answers for the colours of ‘blue’, ‘orange’, ‘grey’.
- 2) The next colours by the number of answers provided are ‘white’, ‘green’, ‘red’.





- 3) Obvious differences in the number of answers of the following colour names (women gave more answer options): 'purple', 'yellow'.
- 4) Colour names where the most answers were given by men comparing to women: 'black', 'pink'.

In the French language:

- 1) The same number of answers of men and women for the colour names of bleu «blue», violet «violet», jaune «yellow».
- 2) A slight difference in the number of answers can be seen for the colours of noir «black», rose «pink», rouge «red».
- 3) Obvious differences when detecting the co-meanings of the colour names (women gave more answer options) of vert «green», orange «orange», gris «grey».
- 4) The only colour name with the most answers given by men is blanc «white». Specifically the social role of a human being and biological characteristics have a major impact on the gender factor. Moreover, one cannot help but notice that the language itself also has a huge impact on it.

From the data gained from studying the works of other researchers and the experiments carried out, it can be concluded that women have a much vaster lexicon in the field of colour naming than men do.

Women use a wider range of colour names using a diversity of shades, whilst in male lexicon the names of the main (basic) colours are used more often.

#### **4. DISCUSSION**

Thus, we can have the intermediate results:

- 1) 'white' has the greatest number of common meanings in the English language. A similar picture is seen in French, 'blanc' has the largest number of meanings;
- 2) 'black' can be referred to the following group by the number of values in the secondary nomination in English. And in French it is 'noir' (black) and 'rouge' (red);
- 3) fewer connotative meanings 'red', 'blue', 'pink' colours have in English; gris "grey", jaune "yellow", rose "pink" and bleu "blue" have in French;
- 4) the last group includes words with the smallest number of meanings in the secondary nomination, in English they are 'green', 'yellow', 'grey', 'orange', 'violet'. In French they are violet "violet", vert "green" and orange "orange".



On the basis of the experiment and comparison of colours, it can be concluded that the name of colour differently reveals semantics in two languages, however, there are some identical or similar meanings.

Table 3 shows that the meanings in both languages are fairly close, but a detailed analysis shows that in English the difference is felt due to the large difference in the number of answers in the case of 'purple' and 'yellow'.

As for the French language, the situation is more stable, that is, women consistently give more connotative meanings to almost all color names, except for 'blanc'.

In our opinion, such a difference can be explained, first of all, as mentioned above, by preferences in colours, and also by the impact of the individual's life experience.

Secondly, the vocabulary has a great influence, which includes idioms with the components of colour, which cannot but affect the perception of colours.

We believe that the mere fact that women have given more answers regardless of language, is that they more widely and variedly imagine the meaning in the second nomination of colours. It refers to the motivation and vitality of situations of stimulus-word for the respondent, determined by his position in society, as well as a gender factor.

## **5. CONCLUSIONS**

Having carried out comparative analysis of the symbolism of the colours of English and French, one can note that there are no visible differences. Most of the association caused by colour in the speakers understanding of both languages is similar, except for some co-meanings.

The analysis of colour symbolism in English and French shows a significant similarity of the semantics of colours in the languages compared, which, in our opinion, are due, to the close tendencies of semantic reorganizations in different languages, the universal way of phrase formation, similar living conditions, some similarity in climate.

The most important colour in terms of the number of meanings received in English questionnaire can be called 'red'. In French it is less evident; these colours are 'noir' (black) and 'rouge' (red).

The main conclusion that can be drawn from this study is the influence of society, living conditions and national character.



Within the framework of the study we were interested in the question of the difference in colour perception from the position of the sex difference. We analyzed the results of the experiment described above.

We note that female respondents indicated a greater number of different meanings than men. A detailed analysis has shown that in the English language this trend takes place in almost all colour names except 'black' and 'pink'. In the French language, men offered more options for 'blanc'.

Speaking about the positive perception and associations, it is worth noting that women have more positive answers than men. However, associations of male respondents are more likely to be neutral than negative. Differences are due to the difference in the social roles of women and men in the cultures of the languages studied.

## **6. ACKNOWLEDGEMENTS**

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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*Revista Publicando, 4 No 13. (1). 2017, 751-762. ISSN 1390-9304*

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