

# THE STRUCTURE OF ASSOCIATIVE FIELDS OF STIMULI ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR IN EAST SLAVIC AND GERMAN LANGUAGES

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**Abstract.** Association test is one of the traditional methods of studying the images of linguistic consciousness that hide behind a word in a particular culture. A number of associative experiments have been carried out in the early twentieth century in Ukraine, Russia, Belarus, and Germany. Students of higher education institutions of these countries (100 representatives from each nation) were the respondents of the experiment. The materials of the free word associatin test are used in the article. The article deals with psycholinguistic analyses of associative fields of the stimuli ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR demonstrating features of corresponding fragments of the mental and lingual worldviews of the Ukrainians, Russians, and Belarusians. The structure and composition of the associative fields is analyzed with the help of the “associative gestalt”. The gestalt structure of associative fields in each language clearly demonstrate the differences in images of linguistic consciousness. The differences are seen in the different number of zones in four gestalts of studied languages, in the presence of some zones only in certain gestalt unlike others, in size of zones, that define their rating and originality of structure of each associative field, in quantitative and qualitative composition of zones as well as in the cores of gestalts.

**Keywords:** *world image, linguistic consciousness, association test, association, associative field, associative gestalt.*

**Терехова Діана. Структура асоціативних полів стимулів ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR у східнослов'янських та німецькій мовах**

**Анотація.** Традиційним методом дослідження образів мовної свідомості, що стоять за словом у певній культурі, є асоціативний експеримент. У дослідженні проведено низку асоціативних експериментів на початку ХХІ століття в Україні, Росії, Білорусі та Німеччині. Респондентами були студенти вищих навчальних закладів цих країн (по сто представників від кожного народу). У роботі використано матеріали вільного асоціативного експерименту. У статті репрезентовано результати психолінгвістичного аналізу асоціативних полів слів-стимулів ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR, виявлено загальні риси та етнокультурну специфіку відповідних фрагментів образів світу українців, росіян, білорусів та німців. Структуру і склад асоціативних полів проаналізовано за допомогою "асоціативного гештальту", у наслідок чого визначено різноманітні зони, які наочно демонструють своєрідність асоціативних полів у кожній мові. Розбіжності виявлено в кількості зон у гештальтах, у наявності окремих зон лише в певному гештальті на відміну від інших, у різному обсязі зон, що визначає їхній рейтинг та неповторність будови кожного асоціативного поля, у кількісному та якісному складі зон, а також у ядрах гештальтів.

**Ключові слова:** *образ світу, мовна свідомість, асоціативний експеримент, асоціація, асоціативне поле, асоціативний гештальт.*

*There is in nature an eternal life, becoming, and movement.*

*J.W. Goethe*

## **1. Introduction**

The problem of the relationship between man and nature, society and nature is of current interest for many sciences. Global processes occurring in the world, also due to human activities, increasingly attract attention of community to the ecology, highlight the fragility of life in general and humans in particular.

Despite the polysemy of the word “nature” in the explanatory dictionaries of each of the studied languages, in the philosophical sense this concept is used primarily in two meanings: as a synonym for the Universe and as an environment in which people live. It is the latter meaning that illustrates the entire range of interaction between society and nature from the source of the resources to the problems of the ecology of the surrounding world. A man as a part of nature and at the same time as a social being must solve the whole complexity of the relationship between society and nature with awareness of the consequences of his activities. Indulgent attitude to the consequences of changes in the natural environment according to the needs of industry, agriculture, political confrontations and armed conflicts leads to a threat to human existence.

Thus, the *topicality* of research is determined by the need to study the ethno-cultural specificity of the linguistic consciousness of representatives of different peoples, since it makes it possible to highlight the national and cultural features of fragments of the world’s images that hide behind the word in each language, which is important both for cognition and self-knowledge of identity of people, and as from the side of problems of intercultural communication; secondly, by the need to solve the problem of harmonious coexistence of man and nature and to clarify the awareness of this issue.

The nature was the subject of research of many scholars in the philosophical aspect of the interaction of nature and society, for example, T. Andreeva, O. Bazaluk, A. Valikhmetov, T. Gaynal, M. Goncharenko, M. Grigoriev, J. Huseynova, I. Ivanov, S. Pustovit, R. Romanova, O. Shishkina, D. Yavorsky), the legal aspect of ecology, for example: V. Galunko, S. Mikhailuk, N. Nesterenko, K. Ryabets, A. Filippenko, the geographic aspect of geological-geographical analysis of territory, for example: V. Baranovsky, sociological aspect of elaboration of formation of ecological cape, P. Yermolenko, O. Marar, T. Oreshkina, the linguistic aspect of studying as a separate concept of NATURE, and within thematic groups, in the writings of writers, in dialects, etc., for example: O. Belsky, L. Bogdanova, L. Verbitskaya, O. Verkhovod, L. Gaitova, A. Golovnya, M. Zozulya, I. Ivanenko, C. Kozak, N. Kremer, Y. Lebid, Liu Siao, G. Maximovsky, Yu. Olkhovikova, N. Solodovnikova, O. Tukhtangulova, M. Kachalova, P. Pasichnyk, V. Romanenko and others. The study of the word-stimulus NATURE in the psycholinguistic aspect requires attention both individually and in comparison in different languages.

Contrastive psycholinguistic analysis of associative fields of words-stimuli ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR was conducted with the *objective* of revealing the general and specific in the images of linguistic

consciousness of Ukrainians, Russians, Byelorussians and Germans. The attitude to nature was formed by every nation in its own national cultural space, in a historical context, it reflects its value priorities.

## 2. Methods

The material was obtained as a result of series of association tests in the early twenty-first century. Students of higher educational institutions of Ukraine, Russia, Belarus, Germany (one hundred representatives from each nation) were respondents of the experiment. The materials of the free association test are used in this study.

## 3. Results and Discussion

Associative fields of word-stimulus ПРИРОДА and its correlates in Russian, Belarusian and German languages were obtained in the result of processing of experimental material. The most frequent associations that make up cores of associative fields reflect the most dominant directions of respondents association (see Table 1).

Table 1

**Cores of associative fields of stimuli  
ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR**

No	Ukrainian	Russian	Belarusian	German
1.	<i>ліс (12)</i>	<i>лес (13)</i>	<i>лес (20)</i>	<i>Wald (12)</i>
2.	<i>зелень (9)</i>	<i>красота (7)</i>	<i>прыгожасць (6)</i>	<i>grün (10)</i>
3.	<i>экалогія (6)</i>	<i>зелень (4)</i>	<i>ахова (3)</i>	<i>Bäume (9)</i>
4.	<i>земля (5)</i>	<i>пейзаж (4)</i>	<i>дрэвы 3</i>	<i>Wiesen (9)</i>
5.	<i>жытця (4)</i>	<i>мать (3)</i>		<i>Tiere (6)</i>
6.	<i>світ (4)</i>	<i>мир (3)</i>		<i>Freiheit (3)</i>
7.		<i>отдых (3)</i>		<i>schön (3)</i>

The most frequent reaction in the associative fields of all languages shows that respondents associate nature primarily with forest (ПРИРОДА – *ліс (12)* / ПРИРОДА – *лес (13)* / ПРЫРОДА – *лес (20)* / DIE NATUR – *Wald (12)* *ліс*), that reflects the objective features of the relieve of these countries and the perception of the forest as a natural complex that combines specific flora and fauna as opposed to urban areas. Not in vain the second most frequent reaction in the cores of the associative fields of the Ukrainian and German languages and the third one of the fields of Russian language indicate a green color, greenery reflecting the color of plants, tree leaves, bushes etc. This aspect of perception is corroborated by the reactions ПРЫРОДА – *дрэвы 3* / DIE NATUR – *Bäume (9)*, present in the cores of the associative fields of the Belarusian and German languages. The tendency of the perception of nature primarily as a traditional relieve by the German respondents is confirmed by the reaction DIE NATUR – *Wiesen (9)*.

The aesthetic aspect of the perception of nature is of great importance for Russian, Belarusian and German respondents, since they pay great attention to its

beauty (ПРИРОДА – краса (7), пейзаж (4) / ПРЫРОДА – прыгожасць (6) / DIE NATUR – schön (3)).

The association of Russian respondents ПРИРОДА – мать (3) reflects the traditional attitude to nature as a mother, progenitress of everything in the world. This is significant for them somewhat more than for other representatives of the East Slavic peoples, that also submitted relevant associations, but they are on the periphery of associative fields.

The perception of nature as a more global world indicate the association ПРИРОДА – світ (4) / ПРИРОДА – мир (3) of Ukrainian and Russian respondents.

At the same time, Ukrainians associate nature with earth (ПРИРОДА – земля (5)), that is an extremely important component of the picture of their being, that can be confirmed by the materials of other experiments, as well as with life (ПРИРОДА – життя (4)), that the nature generates. Equally important for Ukrainian respondents is the problem of conservation of nature, that is confirmed by the reaction of the core of the associative field ПРИРОДА – екологія (6). Such an attitude, according to the frequency of reactions, is observed in reactions of respondents from Belarus: ПРЫРОДА – ахова (3), that indicates the need to protect nature.

The aspect of presence of a natural fauna is important for German respondents (DIE NATUR – Tiere (6)).

The association DIE NATUR – Freiheit (3), which connects nature with freedom is presented only in the associative field of the German language. Perhaps, it means the understanding of freedom as life in accordance with the laws of nature, that is, in the context of the social-naturalistic concept.

Thus, the peculiarity of the images of the linguistic consciousness of the respondents who are representatives of these ethnic groups, can be already mentioned in the core zones of the associative fields of words-stimuli. More clearly they appear within the whole associative field. The method of “associative gestalt” was applied for further analysis of all associations. The essence of this method has been repeatedly stated in previous works (see Terekhova, D.I., 2005–2016). The main results of structuring of associative fields are presented in Table 2.

Table 2

**Gestalt zones of associative fields  
of stimuli ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR**

№ п/п	Gestalt zones	Ukrainian language, %	Russian language, %	Belarusian language, %	German language, %
1.	Feature	16	17	9	18
2.	Relievo	13	15	26	23
3.	Attitude	10	16	18	4

*End of Table 2*

4.	Flora	7	6	2	11
5.	Environment	7	5	7	1
6.	Characteristics	6	2	4	3
7.	Ecology	6	2	–	–
8.	Relaxation	5	5	1	2
9.	Earth	5	2	–	2
10.	Fauna	4	6	5	7
11.	Emotional state of a person	4	5	5	1
12.	Human life	4	1	–	1
13.	Natural phenomena	3	3	4	1
14.	People	2	5	2	1
15.	Comparison	2	3	2	–
16.	Season	2	1	1	–
17.	Universe	2	–	–	–
18.	Food	1	1	–	–
19.	Academic discipline	1	1	–	2
20.	Natural area	1	–	–	–
21.	Transport	1	–	–	–
22.	Art	–	6	2	1
23.	Health	–	3	–	–
24.	Ponds	–	2	–	2
25.	Building	–	1	3	–
26.	Settlement	–	1	1	1
27.	Music	–	1	–	–
28.	Sky	–	1	–	–
29.	Personalities	–	1	1	–
30.	Homeland	–	–	1	–
31.	Parts of the body	–	–	1	–
32.	Industry	–	–	–	3
33.	Freedom	–	–	–	3
34.	Culture	–	–	–	1
35.	Sport	–	–	–	1
Total number of zones		20	26	17	21

A comparison of the structure of the associative fields indicates different number of certain zones in the gestalts: most of them are in the gestalt of the Russian language (26), close in terms are the gestalts of the German and Ukrainian languages (21 and 20 zones respectively), least of all zones (17) has the gestalt of the Belarusian language. Eleven zones are present in all four Gestalts, as we can see from the total number of zones. This is an indicator of a certain structural similarity

of associative fields in the studied languages. Such zones are, for example, “Features”, “Relievo”, “Attitude”, “Flora”, “Characteristics”, “Fauna”, “Emotional state of a person” etc. However, these zones only point to the main directions of respondents’ associating, and their volume and quality content may indicate both general features and differences. For example, the “Attitude” zones in different gestalts have significant discrepancies in volume, especially it is noticeable as for the German language, and in consist of the reactions that are included to them in each language: ПРИРОДА (10 %) – краса (3), захоплення, краса (рус.), феєрія; чудо, яке виживає / ПРИРОДА (16 %) – краса (7), наше багатство, багатство, ідеал, чудо / ПРЫРОДА (18 %) – прыгожасць б, ахова (3), багацце (3), турбота, храм / DIE NATUR (4 %) – schön (3), Schönheit. So, the respondents of the four groups primarily pay attention to the beauty of nature, but representatives of the East Slavic peoples regard it as something extraordinary (ПРИРОДА – феєрія; чудо, яке виживає / ПРИРОДА – ідеал, чудо / ПРЫРОДА – храм), valuable (ПРИРОДА – наше багатство, багатство / ПРЫРОДА – багацце (3)), that needs protection and care (ПРЫРОДА – ахова (3), турбота).

Similar models are observed in the “Characteristics” zones: ПРИРОДА (6 %) – грязна (рус.), дика, жива, красива, натуральне, незаймана / ПРИРОДА (2 %) – буйная, могучая / ПРЫРОДА (4 %) – жывая (2), зялены, натуральны / DIE NATUR (3 %) – kaputt, wunderschön, zerstört. Thus, characteristics of beauty (ПРИРОДА – красива / DIE NATUR – wunderschön) are presented by Ukrainians and Germans; other positive characteristics (ПРИРОДА – натуральне / ПРИРОДА – буйная, могучая / ПРЫРОДА – натуральны) are presented by Ukrainians, Russians and Belarusians; Belarusians and Ukrainians perceive it like a living being (жывая (2) / жива), while Ukrainians note its pristine purity, inviolability (ПРИРОДА – незаймана). German respondents are more focused on the destruction of nature: DIE NATUR – kaputt, zerstört.

Such zones as “Flora” and “Fauna” reflect the most typical plants and animals for the natural zone of each country; “Ponds” zones reflect the presence of rivers and lakes; “Relievo” zones reflect the corresponding landscape, for example: ПРИРОДА (13 %) – ліс (12), гори / ПРИРОДА (15 %) – лес (13), поля, равнина / ПРЫРОДА (26 %) – лес (20), рошча / DIE NATUR (23 %) – Wald (12), Wiesen (9).

The feeling that nature causes among representatives of different ethnic groups, is represented in the zones of “Emotional state of a person”, the majority of these feelings are similar for Ukrainians, Russians and Belarusians, this is calmness and pleasure: ПРИРОДА (4 %) – насолода (2), задоволення, одухотвореність (рус.) / ПРИРОДА (5 %) – грусть, покой, спокойствие, успокоение / ПРЫРОДА (5 %) – зачараваннасць, спакой / DIE NATUR (1 %) – genießen. Some Russian

respondents associate nature with sadness (ПРИРОДА – *грусть*); some German ones – with embarrassment (DIE NATUR – *genieren*).

Some zones of gestalts are not represented in all languages, for example, the zones of “Educational discipline” are represented in gestalts of Ukrainian, Russian and German languages; zones of “Art” are represented in the gestalts of Russian, Belarusian and German languages; zones of “Settlement” are also represented in the gestalts of Russian, Belarusian and German languages. However, if they are common names in Russian and German languages – ПРИРОДА (1 %) – *город* / DIE NATUR (1 %) – *Stadt*, it is a concrete city, significant for Ukrainians and Belarusians in Belarusian language: ПРЫРОДА (1 %) – *Чарнобыль*. The tragedy that occurred at the nuclear power plant near this Ukrainian city caused enormous damage to nature and people for long decades.

Zones of “Personalities” are represented only in the gestalts of two languages. The name of J. Rousseau is present in Russian language (ПРИРОДА (1 %) – *Руссо*). He is famous French philosopher of the Enlightenment, who developed the concept of the coexistence of man and nature, ideas of which are relevant up to now in the issue of the formation of ecological culture. The name of N.N. Prishvin is present in Belarusian language (ПРЫРОДА (1 %) – *Прышвін*). He is Russian Soviet writer, a considerable part of his works is devoted to the problem of interaction between man and nature.

The specific features of the picture of linguistic consciousness are indicated by zones that are present only in one gestalt. These zones in Ukrainian language are the follows: “Universe” (2 %) (ПРИРОДА – *Всесвіт* (2)), “Nature area” (1 %) (ПРИРОДА – *джунгли*), “Transport” (1%) (ПРИРОДА – *автобус*). These zones in Russian language are the follows: “Health” (3 %) (ПРИРОДА – *здоровье* (3)), “Musik” (1 %) (ПРИРОДА – *музыка*), “Sky” (1 %) (ПРИРОДА – *небо*). These zones in Belarusian language are the follows: “Homeland” (1 %) (ПРЫРОДА – *Радзіма*), “Parts of a body” (1 %) (ПРЫРОДА – *палец*). These zones in German language are the follows: “Industry” (3 %) (DIE NATUR – *Industrie* (2), *Technik*), “Freedom” (3 %) (DIE NATUR – *Freiheit* (3)), “Culture” (1 %) (DIE NATUR – *Die Kultur*), “Sport” (1 %) (DIE NATUR – *Sport*).

Some associations according to different semantic relationships may enter two or more zones. Let’s consider zone of “People”: ПРИРОДА (2 %) – *мати, матір* / ПРИРОДА (5 %) – *мать* (3), *натуралист, человек* / ПРЫРОДА (2 %) – *дзяўчына, маці* / DIE NATUR (1 %) – *Bursche*. Associations ПРИРОДА – *мати, матір* / ПРИРОДА – *мать* (3) / ПРЫРОДА – *маці*, that reflect the ancient thoughts and beliefs of the Slavs, can also be attributed to the “Comparison” or “Reminiscence” zones, that confirm a stereotype of perception of the nature as a living being, that is the beginning of everything.

Concluding the review of the structure of the associative fields of stimuli ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR, we would like to draw attention to the cores of gestalt zones, the two largest zones (see Table 3):

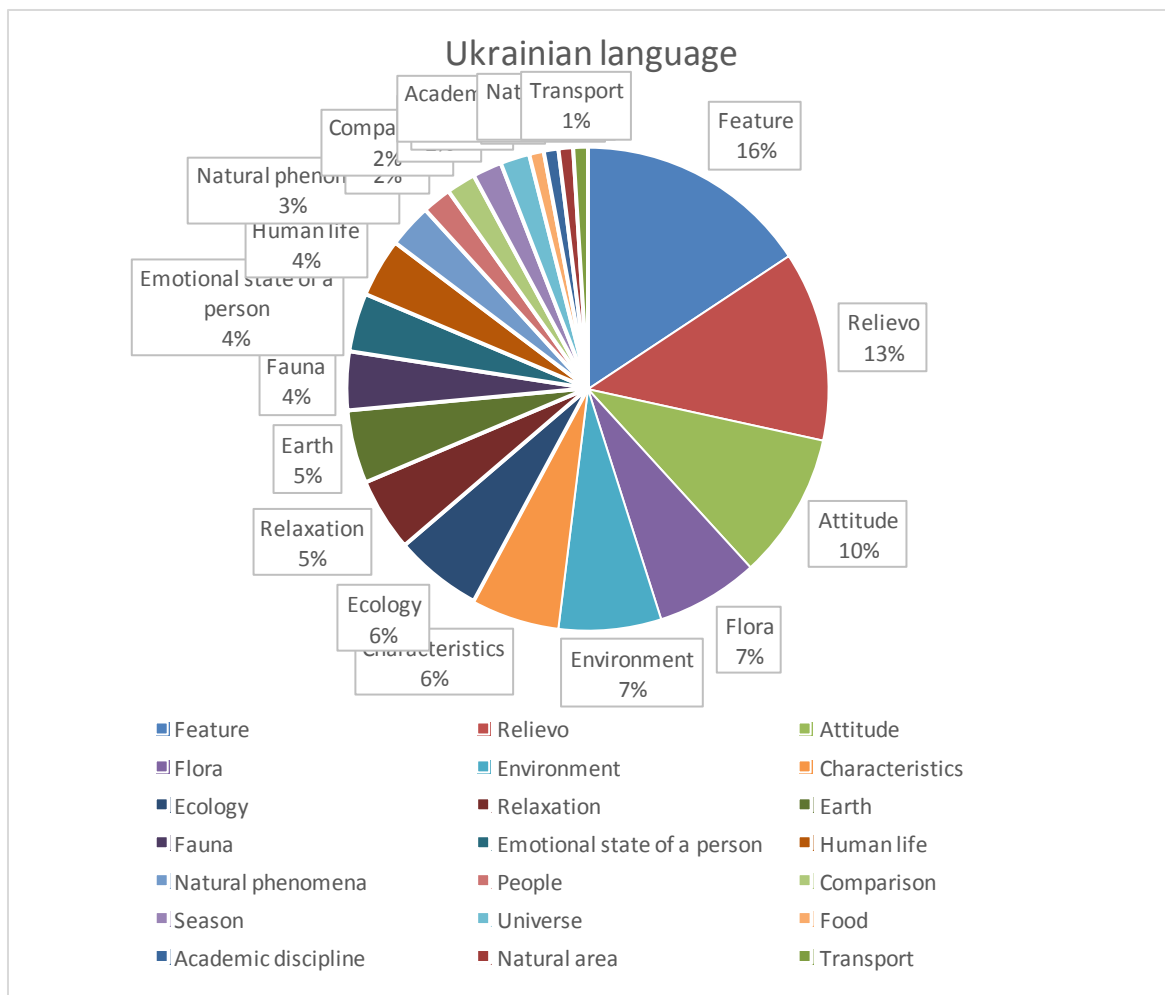
Table 3

**Gestalts' cores of associative fields of stimuli  
ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR**

№	Ukrainian language, %	Russian language, %	Belarusian language, %	German language, %
1.	“Feature” zone, 16	“Feature” zone, 17	“Relievo” zone, 26	“Relievo” zone, 23
2.	“Relievo” zone, 13	“Attitude” zone, 16	“Attitude” zone, 18	“Feature” zone, 18

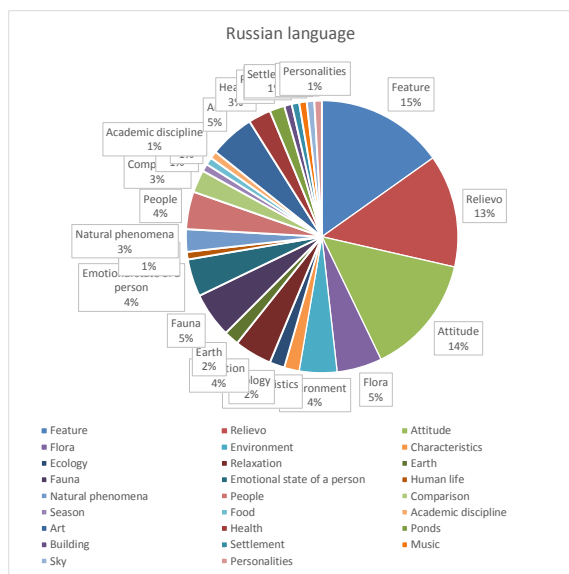
Thus, the gestalts' cores consist of the same zones at the first glance: “Feature”, “Relievo”, “Attitude”, but in combination with numerical indicators of the volumes of each of them, they form a unique structure in the gestalts of the associative fields of each language, the most important directions of associating of representatives of the East Slavic and German peoples.

For clarity, the structure of the gestalt stimulus associative fields ПРИРОДА / ПРИРОДА / ПРЫРОДА / DIE NATUR is represent in figures (see: figures 1-4):



**Fig. 1.** The gestalt structure of the associative field of the stimulus ПРИРОДА

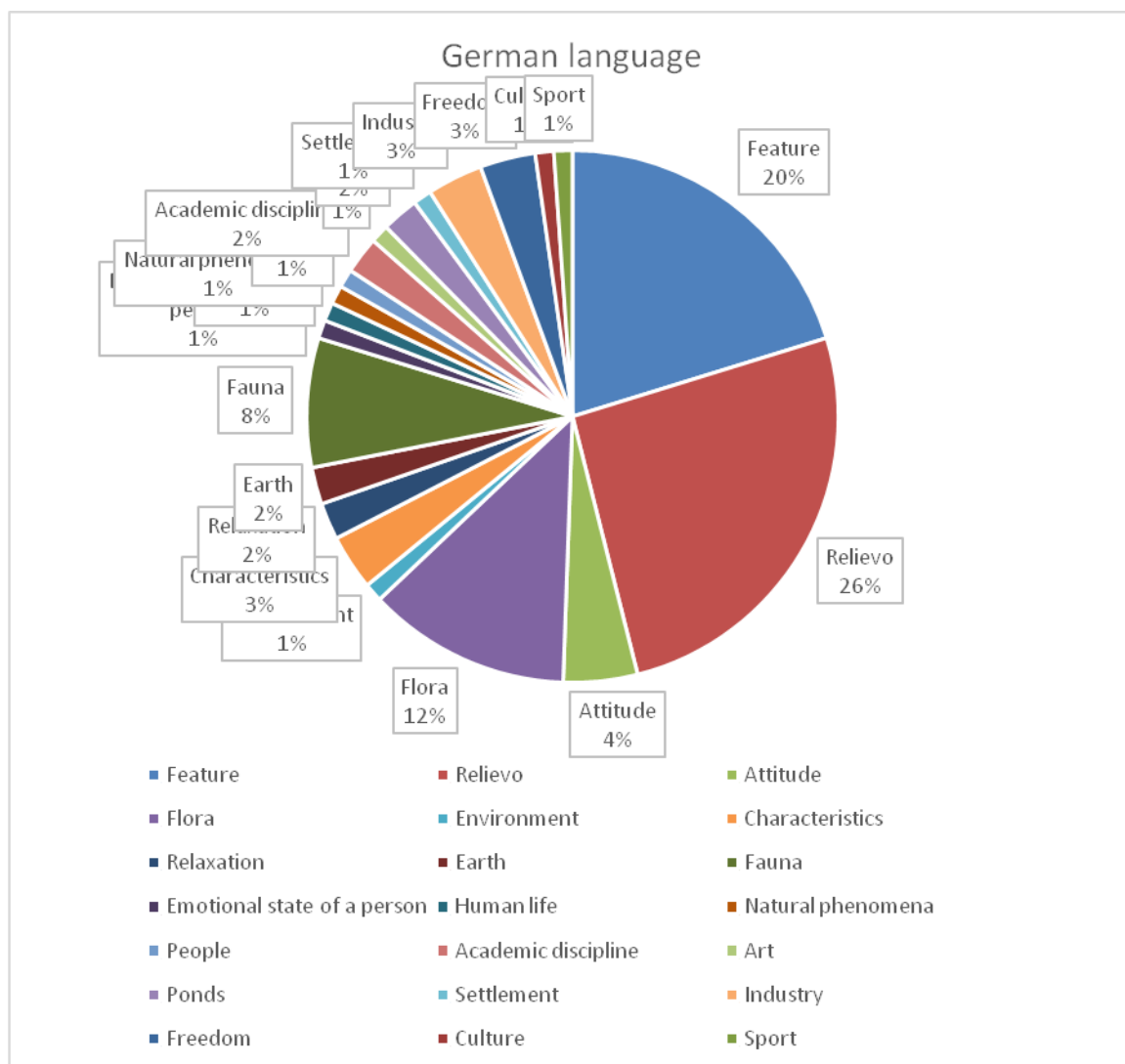




**Fig. 2.** The gestalt structure of the associative field of the stimulus ПРИРОДА

Consequently, the colored sectors of the diagrams indicate the national components of the gestalt: some of them – 11 zones – are repeated on each picture, but their size is purely individual within the associative field of a particular language. For example, the “Flora” zone occupy the following volume of diagrams in the East Slavic languages: 7 %, 5 %, 2 % in Ukrainian, Russian, Belarusian, and in German – 12 %; Zone “Feature” – 16 %, 15 %, 10 % in Ukrainian, Russian, Bluray, and in German – 20 %.





**Fig. 4.** The gestalt structure of the associative field of the stimulus DIE NATUR

The largest sectors in the Ukrainian language diagram correspond to zones “Feature” 16 %, “Relievo” 13 %, “Attitude” 10 %, “Flora” 7 %, “Environment” 7 %; in the diagram of the Russian language – “Feature” 15 %, “Attitude” 14 %, “Relievo” 13 %, “Flora” 5 %; in the diagram of the Belarusian language – “Relievo” 28 %, “Attitude” 19 %, “Feature” 10 %, “Environment” 8 %; in the diagram of the German language – “Relievo” 26 %, “Feature” 20 %, “Flora” 12 %, “Fauna” 8 %. Ultimately unique they are made by the sectors corresponding to the zones available only in the gestalt of the associative field of a particular language.

#### 4. Conclusions

As a result of the contrastive psycholinguistic analysis of the picture of the linguistic consciousness of the representatives of the studied ethnoses, common features in the picture of the linguistic consciousness of the Ukrainians, Russians, Belarusians and Germans are revealed, which are explained mainly by the similar

natural conditions in which these peoples live and universal human values and differences. The gestalt structure of associative fields in each language clearly demonstrate the differences in the picture of the linguistic consciousness. The differences are seen in the different number of zones in four gestalts of studied languages, in the presence of some zones only in certain gestalt unlike others, in different size of zones, that define their rating and originality of structure of each associative field, in quantitative and qualitative composition of zones as well as in the cores of gestalts.

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