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**REGIONAL SPECIFICITY OF TOPONYM SEMANTICS:  
PSYCHOLINGUISTIC STUDY**

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*Abstract*

The article deals with a method for describing meanings of lexical units. Along with traditional lexicographic description which is fixed in definition dictionaries and involves presentation of nuclear semes, psycholinguistic description representing the meaning as a psychological reality can be applied. The method identifies semes which are not fixed in definition dictionaries, regional and ethnic components of the meaning. These are psycholinguistic meanings which reveal deep layers of the semantics of lexical units.

Psycholinguistic meanings are identified and described according to the research results using anthropometric methods: linguistic interviewing and psycholinguistic methods. In Russian and foreign linguistics, there are various methods for describing psycholinguistic meanings. Effective methods were developed by Voronezh theoretical and linguistic school. The methods were tested in numerous studies.

The first research stage involves free and directed psycholinguistic experiments. This allowed us to obtain associative responses. At the second stage, using the associative responses, integrated associative fields were formed. At the third stage, the data were processed and associative fields were interpreted in order to identify and formulate separate semantic components of the word meaning. At the fourth stage, the sememe attribution of received semes is carried out, the semes are combined into separate meanings - sememes. As a result, psycholinguistic meanings of lexical units were identified.

The article presents an experiment which was being carried out by members of Voronezh school from December 2017 to March 2018 in Derbent and Voronezh.

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**Keywords:** Psycholinguistic meaning, anthropometric methods, anthropocentric approach, toponym, associative experiment, associative field.



## 1. Introduction

One of the trends of modern linguistics is description of linguistic phenomena in terms of the anthropocentric approach which speaks for “the most important methodological shift in modern linguistics – the change in its basic paradigm and transition from immanent linguistics dealing with the language in itself and for itself to anthropological linguistics which implies studying the language in close connection with a human, human mind, thinking and spiritual and practical activities ”(Serebrennikov, 1988).

Changes in the basic paradigm of modern linguistics are discussed in various papers (Popov, 2017; Norimatsu & Kozima, 2016; Brandist, 2015). Foundations of anthropological linguistics are also discussed by researchers (Stepkowska, 2012; Kelly, 1990; Keller, 1999)

Within the framework of the anthropocentric approach, a wide range of traditional linguistic issues are considered: 1) issues of grammar "reveal patterns of complex and harmonious interrelations of language and speech - the ability of various types and genres of original creative speech to measure everything which is inherent in the language system" (Remchukova, 2005); 2) issues of lexicology studied by Moscow semantic school (Apresyan, 1995a; Apresyan, 1995b), 3) issues of lexicography (“person and vocabulary”, “vocabulary in person” and “personality in dictionary” studied by Yu. N. Karaulov (Karaulov, 2010; Karaulov, 1988) and others.

The anthropocentric approach contributed to a new object of linguistic researches - linguistic personality and linguistic consciousness. A linguistic personality is “a set of abilities and characteristics of a person which determine creation and perception of speech works (texts) differing in a) structural and linguistic complexity, b) depth and accuracy of reality reflection, c) targets”.

Linguistic consciousness is “a set of mental mechanisms of generation, understanding of speech and storage of language in consciousness, i.e., mental mechanisms ensuring human speech activity” (Popova, & Sternin, 2007).

For studying the linguistic consciousness, anthropometric methods are used (e.g., free and directed associative experiments) which “reconstruct relations between linguistic units in consciousness and reveal the nature of their interaction in different processes of understanding, storing and generating speech works” (Sternin, 2002).

Language consciousness is explored through the semantics of lexical units which objectify it in the “process of nomination and communication in order to identify the psychological reality of revealed facts” (Sternin, 2002).

According to the results of associative experiments, associative fields of lexical units are formed. Based on their semantic interpretation, psycholinguistic meanings are formulated and described. Psycholinguistic meaning is “an ordered unity of all semantic components actualized by an isolated word in the minds of native speakers, in a unity of more and less bright, nuclear and peripheral ones, all of which are associated with a certain lexeme” (Sternin, 2011).

Unlike the lexicographic meaning presented in definition dictionaries, the psycholinguistic meaning of a lexical unit is a meaning that is represented in the linguistic consciousness of native speakers.

## **2. Problem Statement**

Definition dictionaries of the Russian language reflect basic components of meaning (i.e., a set of nuclear semes) in accordance with the principle of reductionism (minimization of semantic features included in the interpretation). Lexicographers assume that a lexeme exists in the language and is interpreted and used in speech in the semantic volume which is presented in the definition. However, analysis of lexemes used in various contexts and our experimental studies show that lexical meanings have semes which are not fixed in dictionary definitions.

The psycholinguistic meaning of lexical units identified by anthropometric methods is much deeper than their lexicographic meanings.

In modern psycholinguistics, there are various methods for describing psycholinguistic meanings of lexical units.

In Russia, Voronezh Theoretical Linguistic Scientific School (founded by Prof. Z. D. Popov) developed an effective method for describing psycholinguistic meanings of lexical units. The method was tested in numerous empirical studies.

The general algorithm for describing psycholinguistic meanings consists of four stages: 1) carrying out an associative experiment with words studied as stimuli; 2) processing of associative responses and formation of associative lexical fields; 3) semantic interpretation of associative responses (fields) and identification of semantic components (semes); 4) sememe attribution of semes.

## **3. Research Questions**

The article describes regional specificity of psycholinguistic meanings of lexical units.

## **4. Purpose of the Study**

The purpose is to demonstrate the potential of the method for describing psycholinguistic meanings of lexical units developed by Voronezh theoretical-linguistic scientific school, to identify regional specificity of lexical semantics.

## **5. Research Methods**

From December 2017 to March 2018, free and directed associative experiments were being conducted in Derbent and Voronezh.

The task of the study was to obtain the initial language material for forming associative fields and describing psycholinguistic meanings of two toponyms - "Derbent" and "Voronezh" represented in the linguistic consciousness of Derbent and Voronezh students. The task was to identify regional specificity of psycholinguistic meanings of these toponyms.

10 toponyms of the Russian language arranged in the alphabetical order were used. Eight toponyms were background ones (Vladikavkaz, Volgograd, Grozny, Dagestan, Ingushetia, Moscow, St. Petersburg, "Chechnya"), and two toponyms were a direct study object ("Voronezh", "Derbent").

The experiments were carried out in writing in student classrooms. The subjects were students of Derbent and Voronezh universities aged from 17 to 40 years. 433 subjects took part in the experiment (330

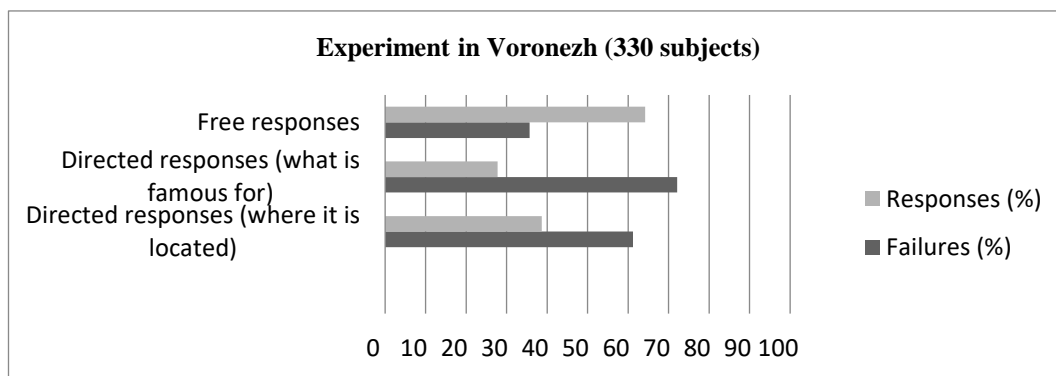
- in Voronezh, 100 - in Derbent. A student of Voronezh State University took part in the primary data processing.

Before the experiment, the subjects received A4 forms with a list of toponyms and instructions which consisted of two parts. In the first part of the instruction, the subjects were to write down the first word that came to mind (free associative responses) opposite each proposed stimulus.

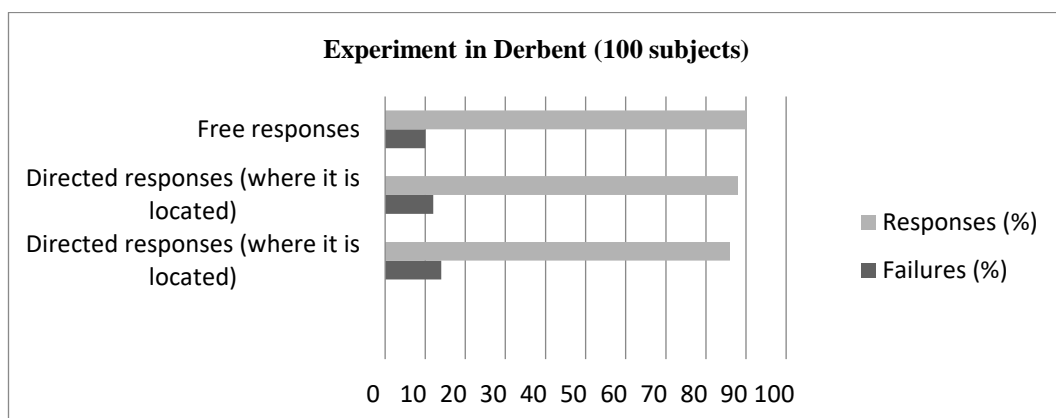
In the second part of the instruction, the subjects were asked to answer two questions for each stimulus: “what is it famous for” and “where it is located” (the task was to get directed associative responses).

## 6. Findings

59 free (41 failures) and 75 directed (125 failures) associative responses for "Voronezh" in Derbent and 212 free (118 failures) and 220 directed (440 failures) associative responses for “Derbent” in Voronezh were obtained. The ratios of all responses and failures are presented in Figures 1 and 2.



**Figure 01.** The number of responses and failures in the experiment carried out in Voronezh



**Figure 02.** The number of responses and failures in the experiment carried out in Derbent

The semantic interpretation of associative responses took place according to the following algorithm: based on summarized free and directed associative responses, integrated associative stimulus fields were formed. First, free associative responses were interpreted, then directed associative responses were added to the semes obtained as a result of semantic interpretation of free associative responses. The

frequency of associative actualization of each seme was summed up. Single associative responses of the integrative associative field were not processed.

Thus, semantic interpretation of integrated associative fields of the stimuli "Voronezh" and "Derbent" allowed us to describe psycholinguistic meanings of the toponyms represented in the linguistic consciousness of Russian speakers in Derbent and Voronezh.

To identify regional specificity of the semantics of the toponyms Derbent and Voronezh, the following research<sup>1</sup> version of description of psycholinguistic meanings of these names was used: a dictionary entry describing the psycholinguistic meaning of the toponym Voronezh presented in the linguistic consciousness of Derbent native Russian speakers is given; then a dictionary entry describing the psycholinguistic meaning of the toponym "Derbent" presented in the language consciousness of Voronezh native Russian speakers is given; these toponyms are non-native for Derbent and Voronezh native speakers of Russian, i.e., Voronezh is not their place of residence, it is located far from their hometown (distance - 1516 km.) for Derbent native speakers of Russian.

The structure of the dictionary entry is as follows: 1) a headword (in bold capital letters), 2) the number of subjects; 3) interpretation of the word: semes; seme brightness index<sup>2</sup> (opposite each seme); associative responses (indicated in parentheses in italics); frequency of associative responses<sup>3</sup> (opposite each response); uninterpreted responses (at the end of the article along with frequency).

#### Toponym "Voronezh"

(in the linguistic consciousness of native speakers of Russian)

**Voronezh 100** - city 0,05, in Russia 0,37 (Russia 2, in Russia 35), in central Russia 0,02 (southern part of central Russia 1, Central Federal District 1 in the European part 1), located on the banks of the Voronezh River 0,03 (on the banks of the Voronezh river 2, the river Voronezh), a millionaire city 0,05 (a large city 2, a millionaire city 2, a large city 1), there are many crows there 0,18 (crow 17, raven 1), there are universities 0,09 (Institute 6, Voronezh universities, student city, Social Pedagogical Institute 1), there is a park "Scarlet Sails" 0,09 (Park Scarlet Sails 2, Park Scarlet Sails 4, Scarlet Sails 3), is known for the teacher Snezhana Denisovna from TV show *Nasha Russia* 0,04 (Snezhana Denisovna 2, the heroine of the TV show *Nasha Rasha*, the role is performed by Svetlakov, Snezhana Denisovna 1); City of Military Glory 0,02 (Hero City 1, City of Military Glory 1), Voronezh Folk Choir 2 (Choir 2), warm climate 0,02 (Climate, 1 Climate 1), the river flows into the Don river 0,02 (flows into the Don river 1, the river Don 1), there are cathedrals 0,02 (cathedrals 1, the Annunciation Cathedral 1), there are museums 0,02 (museums 1, museums 1), beautiful 0,02 (beautiful 1, the beauty of the city 1).

Uninterpreted responses - road 2, Voronezh Palace 2.

#### Toponym "Derbent"

(in the linguistic consciousness of native speakers of Russian)

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<sup>1</sup>There are two options for describing psycholinguistic meanings: 1) lexicographic (only semes are indicated in the dictionary entry); 2) research (semes and associated associative responses are indicated in the dictionary entry).

<sup>2</sup> The seme brightness index is a seme indicator that determines its real position in the psycholinguistic meaning of the lexical unit in the language consciousness of native speakers and reflects the degree of its relevance. It is calculated as a ratio of the number of subjects who verbalized the seme to the total number of subjects.

<sup>3</sup> Frequency of associative responses refers to the number of subjects who responded to the stimulus.

**Derbent 330** - city 0,03 (city 11, city 1), in Dagestan 0,17 (Dagestan 26, the Republic of Dagestan 11, Dagestan 9, the Republic of Dagestan 7, a city in Dagestan 2, a city in the Republic of Dagestan 1, in the south of Dagestan 1), in the south of Russia 0,16 (south of Russia 21, south 13, south of Russia 7, south 5, southern part of Russia 2, the southernmost city of Russia 1, somewhere in the south of Russia 1, city in southern Russia 1, southern Russia 1, southern Russia (European part) 1, southern Russia 1), in the Caucasus 0,03 (Caucasus 13), in Russia 0,02 (Russia 5, in Russia 2, somewhere in Russia 1), in the Caspian Sea 0,04 (Caspian Sea 3, sea 3, sea e 2, Caspian Sea 1, near the Caspian Sea 1, sea 1, sea 1, Caspian Sea 1, Caspian 1), far 0,009 (far, far 1, not close 1, far 1), in the east, 0,006 (east 1, East 1), in the Southern Federal District 0,006 (Southern Federal District 2), 0,006 in Chechnya (in Chechnya 1, Chechnya 1), on the Caspian Sea coast 0,02 (the Caspian Sea coast 1, Caspian Sea 1, on the Caspian Sea 1, near the Caspian 1, between the Caspian Sea and the peaks of the Caucasus 1, by the Caspian Sea 1, near the sea 1), is known for alcoholic drinks 0,25 (wine 31, champagne 26, cognac 22, alcohol 1, liqueur 1, elite alcohol 1, liqueur enterprise 1, wine production 1, produce wine 1), a fortress 0,04 (fortress 2, Derbent fortress 2, Derbent wall 2, fortress 2, fortress with citadel 1, citadel 1, fortress Derbent 1, fortresses 1, Persian fortress 1, Naryn-Kala fortress 1, citadel 1), mountains 0,03 (mountains 4, mountains 2, mountains 1, mountains 1, mountains 1, mountains 1, in mountains 1), known for sweets 0,03 (sherbet 9, sweets 1, sweetness 1, chocolate 1), fruit 0,02 (oranges 1, pomegranate and grapes 1, grapes 2, watermelons 1, fruit 1, persimmon 1, fruit tasty 1, lemons 1), an ancient city 0,02 (ancient city 1 race, one of the oldest Russian cities 1, one of the oldest cities 1, the first settlement in the 4th millennium BC 1, ancient city 1, antiquity 1, one of the oldest cities in Russia 1, old city 1), museums 0,01 (Peter's house 2, Peter's house 1, a museum of military glory 1, museums 1, a museum of Military Glory 1), known for mineral water 0,01 (water 1, water 1, mineral water 1, mineral water 1, mineral waters 1, soda 1), nature 0,01 (nature 1, nature 1, nature 1, nature 1, climate 1, air 1), produce concrete 0,01 (cement 3, concrete 1, crushed stone 1) heat 0,009 (heat 1, heat 1 warm 1), mosques 0,009 (mosques 1, Derbent Juma mosque 1, mosque 1), dancing lezginka 0,006 (lezginka 1, lezginka 1), multinational population 0,009 (Muslims 1, Dagestanis 1, many nations 1), grow vineyards 0,009 (vineyards are grown 1, vineyards 1, grape 1), stone buildings 0,006 (stone walls 1, stone 1), known for its cuisine 0,006 (food 1, kitchen 1), known for textiles 0,006 (fabrics 2), the city is depicted on the commemorative coin 0,006 (10 rubles coin (anniversary) 1, depicted on the 10 ruble coin 1), z little known city 0,02 (uncertainty 4, unknown city 1, I know the city little 1, foreign land 1, difficult 1), beautiful city 0,01 (natural beauty 1, beautiful views 1, cool 1, beautiful city 1), my friends live there (classmate 1, friend 1) 0,006.

Comparative analysis of psycholinguistic meanings of the toponyms Voronezh and Derbent identified their regional specificity.

Based on the number of non-unique semes (16 semes in the meaning of "Voronezh" in the linguistic consciousness of Derbent speakers of Russian and 32 semes in the meaning of "Derbent" in the linguistic consciousness of Voronezh speakers of Russian), we concluded that the semantics of Derbent is twice as rich as the one of Voronezh.

For Voronezh speakers of Russian, meta-linguistic assessment of the word ("beautiful name", "foreign word") is relevant, while for Derbent speakers of Russian, this parameter is insignificant.

According to the comparative analysis of the nuclei of psycholinguistic meanings of toponyms<sup>4</sup>, the core of the meaning of "Derbent" is more extensive (9 semes<sup>5</sup> against 5 semes in the core of the meaning of "Voronezh"<sup>6</sup> (including such a bright false image like "many crows").

At the same time, the number of false semes in the meaning of the toponym "Voronezh" ("Social-Pedagogical Institute"<sup>7</sup>, "near Saratov", "Chechnya"<sup>8</sup>, "many crows"<sup>9</sup>) is significantly less than in the meaning of the toponym "Derbent" ("is in Chechnya", "near Tashkent", "in Siberia", "in the Southern Federal District", "in France", "produce tea", "there are auls there", "Lermontov", etc.).

Thus, semantics of the toponyms "Voronezh" and "Derbent" in the regional linguistic consciousness is different.

## 7. Conclusion

Experimental studies identified regional specificity of psycholinguistic meanings of the toponyms "Voronezh", "Derbent". In addition, semes which are not presented in definition dictionaries (for example, "known for textile" - in the meaning of the toponym "Derbent"; "known for the teacher Snezhana Denisova from the TV show *Nasha Russia*" in the meaning of the toponym "Voronezh", etc.) were identified. This allows for conclusion that different semes are lexical meanings presented in the language consciousness. Anthropometric methods can be used to obtain in-depth description of their lexical meanings.

In addition, psycholinguistic meanings make it possible to model the linguistic consciousness of ethnic groups, identify specifics of reflection of social reality in lexical units, predict semantic development of lexical units, etc..

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<sup>4</sup> The core of the psycholinguistic value is a set of semes with the highest brightness indices.

<sup>5</sup> **Derbent** - 330 - city 0,03 in Dagestan 0,17, located in the south of Russia 0,16 in the Caucasus 0,03, known for alcoholic beverages 0,25, strong beverages 0,04 and the Caspian Sea 0,04, known for sweets 0,03 and mountains 0,03.

<sup>6</sup> **Voronezh** - 100 - city - millionaire city 0,05, in Russia 0,37, many crows 0,18, there are universities 0,09 and Scarlet Sails park 0,09.

<sup>7</sup> There is no social-pedagogical institute in Voronezh.

<sup>8</sup> Location error

<sup>9</sup> The internal form of the word is interpreted

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