

**ISCKMC 2020****International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»****EXPERIMENTAL METHODS FOR STUDYING TOPONYMS  
(THROUGH THE EXAMPLE OF THE TOPONYM ‘MOSCOW’)**

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**Abstract**

The paper shows the potential of experimental methods for studying the semantics of toponyms. The toponym ‘Moscow’ was chosen as an example. The semantics of toponyms is described by lexicographers in dictionaries in line with the principle of reductionism that suggests minimization of the features implied in the meaning with a limited volume of the lexical entry. Experimental methods for the study of semantics allow formulation of a generalized definition of meaning closely related to the real linguistic consciousness of native speakers – psycholinguistic meaning. To determine the psycholinguistic meanings of toponyms in the linguistic consciousness of Russian speakers, students from Grozny and Voronezh, psycholinguistic associative experiments were performed – free (to obtain free associative responds) and directed (to obtain directed associative responds). The experiments were performed in the period from September 2018 to January 2019 in Voronezh and Grozny. The experiment involved 330 students from Voronezh universities and 300 students of both sexes from Grozny universities enrolled in different courses and specialties. The age ranged from 16 to 30 years old. The experiment was performed in writing. The students solved the experimental tasks provided in corresponding forms. There was no time limit for filling out the forms. The results of the experiments were processed to formulate psycholinguistic meanings of the toponym ‘Moscow’. The indices of brightness of the semantic components, false senses and the most striking semantic parameters were revealed in understanding ‘Moscow’ by Voronezh and Grozny residents, native speakers of the Russian language.

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*Keywords:* Toponym, Russian language, semantics, experiment, semantic components



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## 1. Introduction

One of the relevant objects of research in modern Russian linguistics is linguistic consciousness (Makhaev et al., 2019; Makhaev et al., 2019; Sternin & Rudakova, 2011; Sternin, 2013; Tall, 2011; Ushakova, 2000).

The concept 'linguistic consciousness' includes two different objects: consciousness is a psychic phenomenon of an intangible nature (it cannot be measured in spatial terms, it is nonspatial, it is impossible to hear and look at it), and it is the material component of spoken or written speech, as well as a physiological process of formation of verbal linguistic associations (Ushakova, 2000).

Linguistic consciousness is a set of mental mechanisms for generating, processing and storing information in the consciousness of a speaker of a particular language and reflects the degree of relevance of the semantic components of certain lexical units of the language for its speakers and provides knowledge about the specifics (regional, gender, etc.) of the perception of lexeme denotations.

Since it is problematic to describe the content of a verbal unit 'in the form it is present in the mind of native speakers', one can 'only build certain assumptions, models... in relation to what cannot be directly observed' (Zalevskaya, 2003, p. 31).

The model of linguistic consciousness is an associative field of the verbal unit, which is a set of associative responds to verbal stimuli obtained during psycholinguistic associative experiments.

A profound model of linguistic consciousness is a psycholinguistic meaning (sememe) of lexical units formulated based on semantic interpretation of associative fields.

## 2. Problem Statement

The meanings of toponyms are described by lexicographers in dictionaries in line with the principle of reductionism, which suggests minimization of the features implied in the meaning with a limited volume of the lexical entry. The number of distinguished features in different dictionaries differs.

It is not correct to define some descriptions as correct, and others as incorrect, since the completeness of the description of the meanings of the same toponyms is different due to the difference in theoretical and methodological principles in research paradigms, the goals and objectives of the description and forms of presentation of the description results.

The indicated discrepancies in definitions can be explained within the framework of the Voronezh scientific theoretical and linguistic school in line with four theoretical principles: *the principle of non-uniqueness of the metalanguage description of mental units* – different metalanguage formulations of similar semantic units (i.e., researchers use different words when compiling lexical entries from natural language); *the principle of complementarity of semantic descriptions*, when 'the description results obtained from different sources should be compared and integrated using different methods for the most objective and meaningful description of the content of mental units' (Sternin & Rudakova, 2017, p. 189), since lexicographic definitions of various dictionaries differ from each other in the number of semantic components presented in the same sememe, and in their description depth; the principle of complementarity of dictionary definitions, which manifests itself in the fact that 'each of the definitions from different dictionaries reflects some essential features of meaning, but the most complete description

can be provided through a set of definitions of different dictionaries, which complement each other ...' (Sternin & Rudakova 2017); *the principle of denotative differentiation of meanings*, which tells that if a word names a denotation that does not coincide with other denotations, it has an individual meaning (i.e. different denotations are reflected in different meanings, and not in the so-called shades of meanings).

Experimental research methods are used to identify the semantic components of different types in the content of toponyms and to most adequately and fully represent the content and structure of meaning in the unity of nuclear and peripheral components and to formulate a generalized definition of meaning that is maximally close to real linguistic consciousness (Sternin 2013).

### 3. Research Questions

The object of the study is linguistic consciousness.

### 4. Purpose of the Study

The study aims to consider experimental methods for investigation of the meanings of toponyms that are represented in the linguistic consciousness of native speakers. The toponym 'Moscow' is used as an example.

### 5. Research Methods

In order to determine a complete meaning presented in the everyday linguistic consciousness of Russian speakers, students from Grozny and Voronezh, psycholinguistic associative experiments were performed, namely free (to obtain free associative responses) and directed (to obtain directed associative responses).

The psycholinguistic experiments were carried out in the period from September 2018 to January 2019 in Voronezh and Grozny. The experiments involved 330 students from Voronezh universities and 300 students of both sexes from Grozny universities enrolled in different courses and different specialties. The age ranged from 16 to 30 years old.

The experiments were carried out in writing in lecture halls. The students filled out forms that contained the following instruction: Write any word that comes to mind when you hear that word. After the instruction, there was a list of 10 toponym stimuli in alphabetical order, which included the toponym 'Grozny'. The instruction was developed to obtain free associative responses.

To obtain directed associative responses, questions of the type *S – what is it known, famous for?*, *S – where is it located?* were formulated for each toponym stimulus.

There was no time limit for filling out the forms.

The method of semantic interpretation of verbal associative fields was employed to obtain psycholinguistic descriptions of the meaning of the toponym 'Moscow' in the linguistic consciousness of Voronezh and Grozny residents. The brightness indices of semantic components (IBs) were calculated according to the formula:  $IBs = n/N$ , where  $n$  is the number of the students who actualized the seme in the experiments;  $N$  is the total number of those surveyed.

Cumulative indices of brightness (CIB) were calculated by summing the brightness indices (IBs).

The paper provides a methodology developed within the framework of the project to compare regional features of the psycholinguistic meanings of the toponym 'Moscow'.

## 6. Findings

Psycholinguistic meaning of the toponym 'Moscow' in the linguistic consciousness of Voronezh residents (330 of those surveyed, 990 responses).

Moscow – 990: the capital of Russia (0.33), located in the center of Russia (0.18), located in the Central Federal District (0.02), located 500–600 km from Voronezh (0.01), located north of Voronezh (0.01), located northwest of Voronezh (0.01), located in the west of Russia (0.02), located in Europe (0.01), located in Moscow region (0.02), huge (0.01), many people (0.01), traffic jams (0.01), burned in 1812 (0.01); famous for: the Kremlin (0.10), Red Square (0.07), Mausoleum (0.01), metro (0.01), cathedrals (0.01), St. Basil's Cathedral (0.01), Moscow State University (0.01); FC Spartak (0.01), Putin lives there (0.01), all the money is there (0.01), everything is expensive (0.01), many Caucasians (0.01), many non-indigenous people (0.01).

Phrases: Moscow can't host everyone (4) (big) village (3), Third Rome (3), does not believe in tears (1), all roads lead to Moscow (1).

Irony: at the center of the Earth; 0 km from Moscow; (located) at the Kazan station.

False semes: Savior on Spilled Blood (which is located in St. Petersburg), at a distance of 250 km from Voronezh, founded in the 15th century.

Not relevant: 71.

Psycholinguistic meaning of the toponym 'Moscow' in the linguistic consciousness of Grozny residents (300 of those surveyed, 900 responses)

Moscow – 900: (city) in the central part of the Russian Federation (0.15), in the East-European Plain (0.01), in the western part of European part of the country (0.01), in Moscow region (0.01), the capital of the Russian Federation (0.13); famous for: Red Square (0.20), the Kremlin (0.09), museums (0.01), international business center Moscow City (0.01); located on the Earth (0.01), heavy traffic (0.01), a lot of traffic jams (0.01), promising (0.01), airports (0.01), FC Spartak (0.01), military force (0.01), federal city (0.01), high incomes (0.01).

Phrases: does not believe in tears (0.01).

Less than 0.01: port of seven seas (0.001), can host everyone (0.001), big village (0.001).

False semes: armed forces (0.01) (Moscow does not have its own armed forces), located in North Caucasian Federal District (0.001) (Moscow is part of the Central Federal District), located in the east (0.001), located in the south (0.001) (Moscow is located in the west of the Russian Federation).

Not relevant: 105.

Thus, the most striking semantic parameters in understanding of the toponym 'Moscow' by Voronezh residents are city status, location and sights.

In the status parameter, *the capital* component is absolutely dominant.

In the location parameter, *in the center of Russia* component is dominant, the less bright components are an indication of the location relative to Voronezh and St. Petersburg.

*The Kremlin* and *Red Square* are the brightest components of the sight parameter, other semes are not brighter than 0.01.

At the same time, there are many semantic components with a brightness of less than 0.01, which are diverse and indicate the particular knowledge of the sights of Moscow by the students surveyed.

The most striking semantic parameters in understanding of Moscow by Grozny residents are sights, location and status of the city.

In the location parameter, *in the Russian Federation* component is dominant. An absolute geographical description prevails.

In the sight parameter, the brightest components are *the Kremlin* and *Red Square*, the brightness of other components is not more than 0.01.

In the status parameter, the seme *capital of the Russian Federation* clearly dominates.

There are no clearly dominant components in the parameters given below.

In the known institutions parameter, the seme *Central park of culture and recreation named after Maxim Gorky* has the brightness index of 0.004 only. In the 'material living conditions' parameter, the most striking seme is *income*.

## 7. Conclusion

Thus, the experimental methods employed in the study provided a fairly complete description of the semantic components of the toponym 'Moscow', which are represented in the linguistic consciousness of native speakers.

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