

A review of the experimental methods used for studying the semantics of proper names

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Abstract. The article describes the experimental methods for studying the semantics of proper names. Conducting experiments is a new trend in the development of modern linguistics due to the development of the anthropocentric paradigm which considers language as a mental phenomenon rather than an independent system (lexicon, grammar). The paradigm goes back to the works by von Humboldt, Steintal, Potebnyia, etc. Native speakers act as subjects in linguistic experiments. Experimental methods are also used in studies of the semantics of proper names. The experimental approach considers this problem in a new light, identifying the semantic components of proper names that are relevant for native speakers, and taking into account ethnic, age, social, gender and temporal aspects. The experimental methods help reveal a new kind of meaning that exists along with the traditional lexical meaning. This is a psycholinguistic meaning that is represented in the minds of native speakers. This allows us to solve one of the most important methodological problems of lexicography of toponymic vocabulary – the search for methods of complex interpretation of the semantics of lexical units, taking into account the mental factor and ways for analyzing language in its close connection with thinking and experience. The article overviews experimental methods for studying the semantics of proper names.

Keywords: Associative experiment, anthropocentric paradigm, proper name, semantics, language

1 Introduction

Currently, the anthropocentric approach to the study of language has become widespread in linguistics as a result of interest in “living” language that functions in real communication and in the relationship between language and cognitive functions of the psyche.

The study of language as a phenomenon of the psyche sheds light on one of the debatable problems in modern linguistics – the lexical meaning of proper names.

Within the anthropocentric paradigm, in which the linguistic sign is interpreted as a phenomenon of the psyche, there is a tendency to apply the experimental methods for studying the semantics of proper names. An experimental description of the semantics of proper names as phenomena of the psyche makes it possible to present their content as a psychological reality. Language is a human property, and it cannot be understood without its connection with its creator and user [1].

Psycholinguistic experiments (in particular, associative experiments) involve native speakers. This allows us to create dictionaries that reflect the “human

factor” (or “man in the dictionary”) and the “naive” (ordinary) model of the world. Many Russian linguists (Apresyan, Karaulov) refer this task to the most important problem of semantics and lexicography.

Therefore, the experimental studies of linguistic signs (in particular, proper names) identify semantic components that are not fixed by traditional methods of semantic analysis and are not reflected in classical lexical dictionaries, but significant for the consciousness of native speakers.

In the Russian Federation, the experimental methods for studying the semantics of proper names are used to analyze connotative anthroponyms of political discourse [2], fashionable anthroponyms and ergonyms in linguistic consciousness [3]; toponyms of the tea route in Buryatia [4], linguistic consciousness of the Khanty and Mansi [5], oikonyms and horonyms of the Russian language [6, 7].

2 Problem Statement

The problem of systematization of experimental studies of the semantics of proper nouns carried out in Russia

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has not been covered in the English-language scientific literature. In order to fill this gap, a review of experimental methods for the study of proper names used in the Russian Federation was carried out.

3 Research Questions

The subject of this study is experimental methods for studying proper names

4 Purpose of the Study

The purpose is to review experimental methods for the study of proper names used in the Russian Federation).

5 Research Methods

The methods of analysis and generalization (systematization) of extensive literature, including scientific articles, monographs, and dissertations, were used: [2, 3, 5, 8–10].

6 Findings

Suprun conducted an associative linguistic experiment in order to determine the relationship between fragments of

extralinguistic reality and onomastic vocabulary [10]. Suprun assumed that proper names of different ranks which refer to a certain fragment of the picture of the world function in parallel in the linguistic consciousness of Russian speakers. Anthroponyms play a central role in the onomastic field and in the language as a whole. Other proper names are thematically distributed.

185 subjects, students and teachers aged 18 to 63 (mostly women), were asked to write down three proper names per stimulus word from different areas. The following lexemes were proposed as stimulus words: cinema, painting, motherland, book, war, politics, country, science, Russia, education, state, music. The stimuli were chosen due to the fact that they reflect the most common social and cultural fragments, accessible to all native speakers, and cause heterogeneous reactions.

Based on the patterns of the proper names in linguistic consciousness and in accordance with the research hypothesis, Suprun assumed that a significant proportion of reactions to these stimuli would be anthroponymic reactions, and ideonyms (artionims, biblonyms) would constitute a significant share of reactions to stimulus words from the sphere of art and culture, film names, etc.).

The results of the experiment confirmed these assumptions (Table 1, Table 2).

Table 1. Reactions to the stimulus word "war" in Suprun's experiment

Anthroponym reactions (% reactions)	Chrononym reactions (% reactions)	Toponym reactions (% reactions)	Ideonym reactions (% reactions)	Chrematonym reactions	Ergonym reactions
33.3 % (example: Stalin Zhukov, Hitler, Napoleon)	28.5 % (example: Great Patriotic War, World War II)	23.2 % (example: Stalingrad, Leningrad, Syria, Berlin)	11.5 % (example: "War and Peace", "The Fate of Man")	2 % (example: Katyusha, T-34, Victory Banner)	1.5 % ergonyms (example: GKO, Smersh)

Total: 552 reactions (94 % of the maximum number of responses).

Table 2. Reactions to the stimulus word "cinema" in Suprun's experiment

Anthroponym reactions (% reactions)	Filmonym reactions (% reactions)	Ergonym reactions (% reactions)	Character Name Reactions	Toponym Reactions
58.8 % (example: Andrey Tarkovsky, Viktor Tsoi)	28.1 % (example: Love and doves, Titanic)	7.6 % (example: Mosfilm, Hollywood)	3.7 % (example: Harry Potter)	1.8 % (example: Moscow)

Total: 459 reactions (82.7 % of the maximum number of responses).

Stepanova and Makhovikov conducted experimental studies of the anthroponyms of the Russian language [11].

In their experiments, they used more than 400 of the most common anthroponyms as stimulus materials. They were selected using Internet sites with rankings of names for different years and regions, and materials from the Russian Associative Dictionary [12].

The names were randomly divided into eight types of questionnaire, each containing 50 stimuli. About 100 subjects were involved in the experiment.

The reactions were divided "depending on the dominant feature that native speakers attribute to the name, or on the association feature: 1) precedents; 2) actual characteristics; 3) a semantically diffuse set of

reactions; 4) associations to the form; 5) phonetic associations.

The precedents were the most numerous group: (Zoya – Kosmodemyanskaya 8; Veniamin – "Daddy's Daughters" 4; Margarita – Master 10; Taras – Bulba 32; Mark – Twain 12).

The researchers claimed that anthroponyms that are closely related to the precedent phenomenon have a clearer core of the associative field (reactions with the highest frequency). For example, **Margarita – Master** 8; flower 5; daisy flower 4; Master and Margarita 3; Bulgakov 3; margarine 3; flowers 2; cocktail 2.

In addition, Stepanova and Makhovikov found that "the attractiveness of a name, its prestige in the present period, or, on the contrary, old-fashionedness and unattractiveness, were expressed in the reactions."

For example, **Dunya** – village 12, milkmaid 3, cow 2, scarf 2, grandmother 2, Rus' 2, cook, tractor driver, turnip, old maid; **Vanya** – fairy tale 5, village 4, uncle 3, grandfather 3, fool 3, fool 3, village 2, bathhouse 2, friend 2, simplicity 2, simple 2, Ivanushka

The associative fields of the names "Dunya" and "Vanya" indicate that for the speakers of the modern Russian language, these names are outdated and not prestigious. However, these conclusions are valid only in relation to the diminutive forms of these names, i.e., "the associative fields of the anthroponym in the full form and its various diminutive formations differ."

Some names cause negative emotional and evaluative reactions, because they are perceived as "strangers". For example, the name "**Amir**" has the following associative field (the negative emotional-evaluative reactions are in italics): Amur 6, east 4, chock 3, Caucasus 5, precious stone 2, *khach* 2, non-Russian 2, Arab 2, ring 2, emir 2, empire 2, gods, desert, mountains, sultan, *come in large numbers*, *big nose*, sea, seller, secretive, closed, foreigner, tan, alien, Turk, world, foreignness, foreign, Baltic, idol, Tatarstan, *Ashot*, moron, raisins, Baku, Arabia, Pamir, Middle East, Tatar.

The researchers came to a number of conclusions: 1) most anthroponyms have meaningful associative fields 2) associative fields have a clear core with a

significant number of single reactions 3) anthroponym stimuli cause a large number of connotative reactions.

Thus, the authors claimed that anthroponyms are not empty language signs used exclusively for naming people, but very complex language structures with specific semantics.

Poluboyarin in his studies of the semantics of proper names used not only the methods of free and directed associative experiments, but also asked participants to write a mini-essay on the topic "what I think about Voronezh" (he used the proper name "Voronezh" as a stimulus) [13]. 100 residents of Voronezh region and 100 residents of Yaroslavl region of both sexes, aged 15 to 72, took part in his experiment. The subjects were given the following instructions: 1) Write any word that comes to your mind when you hear the word VORONEZH. Indicate your gender and age" (free associative experiment) 2) "Finish the phrase – Voronezh – what kind? Indicate your gender and age" (directed associative experiment) 3) "Describe what you think about Voronezh. Indicate your gender and age" (mini essay).

After the end of the experiment, Poluboyarin interpreted the results and revealed numerous cognitive features of the toponym "Voronezh" (Table 3).

Table 3. The results of cognitive interpretation of experimental data on the toponym "Voronezh"

Cognitive sign	Lexical content of a cognitive sign (residents of e Voronezh region)			Lexical content of a cognitive sign (residents of Yaroslav region)		
	Free associative experiment	Directed associative experiment	Mini-eassya	Free associative experiment	Directed associative experiment	Mini-eassya
city 31	city 2	–	-	city 5	–	city 24
Beautiful city 27	–	beautiful 2	Beautiful city 14, beautiful in the evening 1, very beautiful city 1, a lot of beautiful buildings 1, a lot of beautiful places 1, beautiful places 1	–	beautiful 1	Beautiful 3, beautiful building 1, beautiful streets 1
scene of the cartoon "Kitten from Lizyukov Street" 22	"Kitten from Lizyukov Street" 22	–	cartoon "Kitten from Lizyukov Street" 22	hippo in panama 1, crow with cheese 1, kitten 1, "Kitten from the street. Lizyukov 3, there was a cat in the cartoon 1, crow statue 1	cartoon 1	cartoon "Kitten from Lizyukov Street" 22

Poluboyarin emphasized that the resulting semantic components reflect the concept "Voronezh" in the linguistic consciousness of Russian speakers in Voronezh and Yaroslavl regions. Poluboyarin ranked the semantic components by frequency and built a field model of the psycholinguistic meaning of the toponym "Voronezh". The core of the meaning included semantic components such as city 31, beautiful 27, the scene of the cartoon "Kitten from Lizyukov Street" 22, located in the south of Russia 17, native 17, best city 16, regional center 15. The near periphery was formed by components with a frequency of 14 or less (dirty 14, large 13, a lot of crows 11, etc.), the far periphery – components with a frequency of 4 or less (interesting 4,

a lot of cultural values 4, located in Central Russia 4, etc.), and the extreme periphery – components with a frequency of 1 (few beautiful places 1, glamorous 1, etc.).

At the next stage, Poluboyarin formulated the psycholinguistic meaning of the toponym "Voronezh". The number after the headword is the number of subjects; the number after associative reactions – the frequency of reactions.

Voronezh (200) – city 31, large 15, less often small 1, provincial 11 regional center 15, located in the south 17, Russia 7, in Central Russia 4, in the Chernozem region 7 (the abbreviated version of the semantics).

Poluboyarin claimed that “using experimental methods to describe the semantics of proper names, it is possible to establish the psychologically meaning of the onym, identify regional, social and individual features of their semantics in the linguistic consciousness of native speakers and the most relevant semantic components meanings for various social, age and gender groups”.

Nikolskaya conducted an experimental study of the structure of the associative field of personal names. She claimed that the associative component is a full-fledged element of the semantics of personal names [6]. She conducted a free linguistic experiment, in which 210 students of Nizhny Novgorod Linguistic University and Nizhny Novgorod Academy of Architecture and Civil Engineering, aged 17 to 20 took part. Subjects were provided with an experimental list of 40 randomly selected personal names, including 14 male and 14 female official names, and 12 unofficial but related names. 6212 reactions were obtained. Nikolskaya divided the reactions by their relations with language: linguistic and non-linguistic.

Linguistic associative reactions were distributed along the following subgroups: a) reactions with phonetic similarity of the form of the personal name with common nouns (*Eugene – genius*) b) reactions based on rhymes (*Tolik – Rabbit*) c), reactions based on quotes (*Boris – you are wrong*) d) reactions based on knowledge about etymology of the name, etc.

Among non-linguistic associative reactions, Nikolskaya identified a) reactions based on background knowledge (*Alexander – Macedonian*) b) characterizing the appearance of a potential referent (*Catherine-courageous, proud*) c) reactions with a visual-dynamic image (*Anchutka -beats dishes*).

The highest percentage received reactions based on background knowledge (90 % of the total number of reactions for the name Anna; 64.9 % for Boris, etc.).

Syntagmatic and paradigmatic relations between the stimulus and the reactions form the basis of the associative connections based on background knowledge. Nikolskaya concluded that the associative field of personal names is affected by a vector operating in the direction “mental universe” – “language”, however, the existence of an associative field of the personal name is determined by other factors as well”.

Bubnova conducted associative experiments in Moscow and St. Petersburg, in which 1,602 part-students took part [14]. As a stimulus material, she used the name “Smolensk”. 1140 associative reactions were obtained; for each reaction the frequency index was calculated.

Bubnova distributed all universally valid reactions along five groups: informative (25 semantic groups), evaluative (negative /positive assessment), formal (reactions with word-forming components), erroneous and “empty” (indicate the absence of background knowledge about “Smolensk”).

Bubnova claimed that proper names have associative-cultural background created by a combination of verbal associations with the name as part of the background knowledge of the regional language personality. The regional linguistic personality is a generalized image of the native speaker in a particular

region (a member of a certain regional language space), which has background knowledge, including proper names.

7 Conclusion

The article reviewed the experimental methods used by Russian scientists to study the semantics of proper names. This is not the whole list of methods and experimental studies. Research methods are being improved, new approaches are being created and new results are being obtained. The experimental method established itself as an effective tool for understanding the semantics of proper names as a phenomenon of human consciousness, which makes it possible to determine general knowledge of the world among native speakers. This knowledge is stored in language and activated with the help of language to understand the linguistic picture of the world of representatives of various regions and nations.

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