

Theoretical and methodological background to experimental research on semantics of proper names and linguistic consciousness

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Abstract. The article is concerned with new linguistics trends associated with turning scientists' attention from the study of language being a system autonomous from a person to the study of language being a phenomenon of human consciousness. The anthropocentric paradigm is premised on the idea that, as Baudouin de Courtenay noted «language exists only in individual brains, only in souls, only in the psyche of individuals». The anthropocentric paradigm is one of the leading ones in modern world linguistics. In different countries, there are numerous scientific schools basing on the anthropocentric paradigm. In the Russian Federation, one of the leading schools in this field is the Voronezh Scientific Theoretical and Linguistic School of General and Russian Linguistics, whose members have made a significant contribution to the development of psycholinguistics, cognitive linguistics, and linguoculturology. The article describes the theoretical and methodological foundations of experimental studies on linguistic consciousness based on the example of a project on creating a new differential empirical model for describing the meanings of proper names as phenomena of linguistic consciousness. The article also describes the concept of linguistic consciousness (the central object of linguistic research in Russia), options for its modeling (construction of simple and complex models of linguistic consciousness) and experimental methods for its study. It is stated that a simple model of linguistic consciousness is an associative field, and a complex model of linguistic consciousness has a psycholinguistic meaning. The article specifies the algorithm for their description.

Keywords: associative field, linguistic consciousness, psycholinguistic meaning, psycholinguistic experiment, psycholinguistics

1 Introduction

The study of linguistic phenomena based on the anthropocentric paradigm is the most important trend in modern linguistics. This trend indicates that the research activity of philologists turns from immanent linguistics considering the language in itself and for itself to anthropological linguistics, which involves studying the language in close connection with a person, their consciousness, cognition, spiritual and practical activity" [1].

According to W. Von Humboldt, a person thinks, feels and lives only in language, must first be formed through language [2].

In different countries of the world there are different linguistic schools adherent to the anthropocentric paradigm.

In the Russian Federation, scientific theoretical and linguistic school in the field of general and Russian linguistics (founded by Z.D. Popova, professor at

Voronezh State University) is one of the leading ones. The school is engaged in fundamental and applied research on the interaction of language and various forms of consciousness.

Collections of scientific papers, such as "Meaning as a Phenomenon of the Actual Linguistic Consciousness of a Native Speaker", "Language and National Consciousness", etc. are regularly published under the auspices of this school.

With a certain regularity, the All-Russian Scientific Conference with international participation "Meaning as phenomenon of relevant linguistic consciousness of a native speaker" is held.

The work is being done under the grant of the Russian Foundation for Basic Research No. 20-012-00013 "Differential description of the semantics of a word in the Russian language consciousness and the problem of its lexicographic fixation".

Representatives of our school are also working on a project to create a new differential-empirical model for

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describing the meanings of proper names as phenomena of linguistic consciousness within the state task.

The project involves members of the Voronezh school from Voronezh State University, Moscow International University, Sattorov names Laboratory of Cognitive Research of Consciousness.

This article reveals the theoretical and methodological foundations of our research on the example of a project to develop a differential-empirical model for describing the meanings of proper names as phenomena of linguistic consciousness.

2 Materials and Methods

Russian linguists working within the framework of the anthropocentric paradigm actively use the term “linguistic consciousness” in their research.

In our theoretical-linguistic school, the following definition of the concept of linguistic consciousness is accepted.

Linguistic consciousness is a set of mental mechanisms for generating and interpreting speech, as well as storing language in the mind. In other words, linguistic consciousness is a set of mental mechanisms that ensure the process of speech activity.

We use the modeling method to study linguistic consciousness.

It is possible to construct simple and complex models of linguistic consciousness.

A simple model of linguistic consciousness is the associative field of linguistic units.

An associative field is an ordered set of verbal associative reactions (R) received to verbal stimuli (S) in the course of a linguistic associative experiment and arranged in descending order of frequency (R_n) in associative dictionary entries.

Our school is not only based on building simple models. As a result of the semantic interpretation of associative reactions, complex models of linguistic consciousness are created.

Complex models provide a more extensional and in-depth description of linguistic consciousness.

A complex model of linguistic consciousness is the psycholinguistic meaning of linguistic units.

Psycholinguistic meaning is an ordered unity of all semantic components actualized by a separate word in the minds of native speakers in the unity of more and less vivid, nuclear and peripheral ones, virtually connected with a given sound shell (lexeme) [3].

In contrast to the traditional lexicographic meaning presented in lexical (explanatory) dictionaries, psycholinguistic meaning is the one that is actually represented in the minds of native speakers of a particular language.

For example, in the Small Academic Dictionary of the Russian Language, the word “vaccine” has the following interpretation: a drug containing weakened (or killed) pathogens of infectious diseases and used for preventive and therapeutic vaccinations of people and animals ... [4].

In the Russian Associative Dictionary, the word “vaccine” has the following associative field (reactions with a frequency of at least 2 are given): medicine (frequency = 7), for AIDS (=5), against AIDS (=4), AIDS (=4), syringe (=3), bacteria (=2), disease (=2), BCG (=2), pharmacy (=2), test tube (=2), for measles (=2), serum (=2), injection (=2) [5].

Associative reactions in the process of semantic interpretation turn into semantic components (semes) later used to formulate psycholinguistic meaning.

For example, the reactions “for AIDS (=5), against AIDS (=4), AIDS (=4) are generalized into the semantic component “against AIDS” (the frequency is summed up).

Therefore, psycholinguistic meanings contain numerous semantic components (both denotative and connotative) that are not represented in traditional lexical dictionaries (for example, the “against AIDS” component, as in the example above) and are insignificant from the view point of classical lexicography. However, they are relevant for the linguistic consciousness of native speakers (that is, the purpose of the vaccine to be a drug for AIDS is relevant and significant for native speakers, as in the example above) in varying degrees.

Experimental methods are used to study linguistic consciousness [6, 7].

It is during the experiment that researchers receive associative reactions later used to formulate associative fields.

Our school makes active use of the free association method and directed associative experiment.

In such experiments, the research subjects perform certain experimental tasks (give the first association to the stimulus word) focusing on the general linguistic reality, reflecting the experience in observation of other people’s language and personal linguistic experience in their responses [8].

The general algorithm for the experimental study of linguistic consciousness consists of 5 stages: 1) conducting a psycholinguistic experiment with the words studied as stimuli; 2) processing the obtained associative reactions and building a simple model of linguistic consciousness; 3) semantic interpretation of associative fields and identification of semantic components (semes); 4) construction of a complex model of linguistic consciousness (formulation of psycholinguistic meanings); 5) contrastive analysis of psycholinguistic meanings.

As part of the project, we conducted linguistic associative experiments on the territory of the North Caucasus and Central Russia aimed to develop a differential-empirical model for describing the meanings of proper names as phenomena of linguistic consciousness.

The research subjects were the students of both sexes and different specialties aged 16 to 30 years old. They all were native Russian speakers.

A list of 10 toponyms of the Russian language was used as a stimuli. Experiments were carried out in lecture halls of local universities in written form in accordance with the following procedure: the subjects received

experimental forms of A4 format (Figure 1) with a list of 10 toponym stimuli (Vladikavkaz, Volgograd, Voronezh, Grozny, Dagestan, Derbent, Ingushetia, Moscow, St. Petersburg, Chechnya) and instructions: "Give the first association when you hear this word" / "X – what is it famous for?", "X – where is it?".

The forms contained three tasks: 1) "Give the first association when you hear this word") 2) "X – what is it famous for?" 3) "X – where is it?".

Prior to the experiment, the experimenter provided the instructions. There was no time limit for completing the tasks (on average, the subjects completed the work within 15 minutes).

3 Results and Discussions

The data was processed manually. After processing the received associative reactions, a simple model of linguistic consciousness was built (three associative fields of toponyms based on the results of completing three tasks) and then the results were interpreted semantically to build a complex model of linguistic consciousness (three fields were united).

The associative field was described in the form of a dictionary entry, which had the following structure: a) heading word (stimuli) in bold type; b) the number of subjects in the experiments (the number after the heading word); c) the set of associative reactions arranged in descending order of frequency (the number after each reaction lexeme); d) the number of refusals to complete the tasks (the figure indicated at the end of the article after the word "Refuses"); e) the number of unprocessed reactions.

There are various reasons for refusals to complete the task on the part of the subjects (fatigue, unwillingness to answer questions, misunderstanding of the essence of the task, etc.). The number of failures is also important for understanding the state of linguistic consciousness, so failures were recorded in studies.

The main reason for the failure to process the reactions was incomprehensible handwriting.

For illustrative purposes, let us present the associative field of the toponym "Ingushetia", built on the results of experiments in Voronezh (Central Russia).

The associative field of the toponym "Ingushetia" based on the first task.

INGUSHETIA 330: Ingush – 16; distance – 15; Caucasus – 11; mountains – 7; war; Magas Tower Concord – 6; far away; turkeys; pilaf; country; dancing; barbecue – 3; anti-terror; wine; East; town; needle; turkey; counter-terrorirsm organasation; sheep; Priora; narrow-eyed; Chechnya – 2; Asia; Africa; women in headscarves; lamb; tower; Magas Tower Concord; poverty; lawlessness; bomb; beard; wrestlers; not in Russia; helicopter; hostilities; theft; stealing women; fun and relaxation (meaning the caricature image of a southerner); somewhere far away; geography; Georgia; gouache; hussar; geese; yes; Dagestan; Dagestan Ingush; not even a rhyme; Jairah, Beini; director; food; overgrown; familiar; iguana; apologies to the great Ingush people; Ilyumzhinov; ingi; Ingush; turkey;

Indians; Hindu; Hindus; them; Ichkeria; Stone Age; Katya (classmate from Ingushetia); kangaroo; sweets; beautiful; beautiful nature; crime; pitta bread; lezginka; frog; frogs; little; place; many Ingushes; multinationality; frost; impudence; Nazran; people; unknown; uncertainty; city is unknown to me; undeveloped; nose; monkeys; classmate; weapon; flock of sheep; backward country; backwardness; pareo; goose pate; nature fascinates with beauty; birds; eye shape; homeland; Roman Lisitsyn; with narrow-eyed people; nets; weird people; shooting at weddings; subject; The subject of the Russian Federation; nothing out of the common; the Taliban; Tatars; terrorist attack; terrorists; Tkhaba-Yerdy; Uzbek; smile; ears; flag; fruit; hijab; cold; good pilaf and barbecue; ridge; Chukchi; gooks; hut; fur coat; elite; ethnic clothes; eh; south; south of Russia; South part; lambs; language that is not very pleasant to hear – 1

Refusals – 107

Unprocessed reactions – 4

The associative field of the toponym "Ingushetia" based on the second task.

INGUSHETIA – what is it famous for? 330:

Ingush – 9; Magas Tower Concord – 4; war; mountains; people – 3; Magas; unknown; republic; subject of the Russian Federation – 2; lawlessness; wrestlers; delicious berries; internal war of the 90s; raising sheep; gazelle; food; Ingush and costumes; Ingush; sausage; counter-terrorirsm organasation; conflicts with TNT; beautiful views; koumiss; lezginka; people, culture; Magas, ski resort; small region; it seems to me that there are people with big noses; my love for such questionnaires; museum-apartment of S. Ordzhonikidze; Nazran; nationality; folk costumes; does not like Dagestan, Muslims; inconspicuous; no one knows what to expect from it, but it has beautiful scenery; no one knows anything about it; sheep; again mountains; pilaf; nature; there is no information about you on the Internet, you do not exist at all; food; the Terek river; smallest region; its population; Agriculture; force; capital Magas; cheeses; the Ingush live there; by what is unknown; traditions, cuisine; Tkhaba-Yerdy; they are cold; destruction of militants; the character of people is peculiar; something; something alcoholic; chocks; it is a republic; southern federal district – 1

Refusals – 245

Unprocessed reactions – 2

The associative field of the toponym "Ingushetia" based on the third task.

INGUSHETIA – where is it? 330: Caucasus – 28; south of Russia – 20; south – 17; North Caucasus – 15; Russia – 8; North Caucasian Federal District – 5; East; RF – 4; far away; Ingushetia; The Republic of Ingushetia; near Chechnya – 3; near Chechnya; not far from Grozny; north; southern part of Russia; south of the Caucasus – 2; in the mountains; in the heart; in the explanatory dictionary of the Russian language; Vladikavkaz; below, left; east of Russia; eastern area; east of Moscow; somewhere; somewhere in the region of Chechnya and Dagestan, but I am not sure; somewhere at the bottom of the map; somewhere in the Caucasus; somewhere in the south; borders on Dagestan; far, far

away; Caucasus, republic; Caucasus, Russia; seems far away; I would also like to know; in our Motherland, in Russia; not far from Russia; it is unknown; inseparable from Chechnya; near the Chechen Republic; Republic of Ingushetia, North Caucasus; Russia; you can ask Google. Probably very far; near Dagestan; near Kabardino-Balkaria; near the sea; near Russia; North Caucasian District; Siberia; Chechen Republic; south of the Russian Federation; south, one of Russian republics; southern part of the European Plain; southern part of the country; south direction; SFD – 1

Refusals – 168

As noted earlier, the semantic interpretation of associative fields implies that associative reactions are generalized and positioned as semantic components. For example, the reactions “mountains” (in the first task) and “mountains” (in the second task) are generalized by the reaction “mountains”, which acquires the status of the semantic component “known by mountains”.

This creates a psycholinguistic meaning being a complex model of linguistic consciousness.

The psycholinguistic meaning is also described in the form of a dictionary entry, which has the following structure: a) the left part of the article is the heading word in bold b) the number of subjects in the experiment (number after the heading word) c) the right part of the article is a definition consisting of semantic components; the brightness indices of the semantic components (brightness indices) are indicated in brackets, which are calculated by the following formula:

$$BI = n / N, (1)$$

where n is the number of subjects who actualized the sense in experiments; N is the total number of subjects.

The definition can be presented in three versions: the main definition (formulated based on senses with high brightness indices: not less than 0.09); partially expanded definition (brightness index not less than 0.02) and full definition (all senses).

Main definition

INGUSHETIA 330: republic (0.02) in the south (0.13), Caucasus (0.13), North Caucasus (0.04), populated by Ingush (0.09).

Partially expanded definition

INGUSHETIA 330: republic (0.02) in the south (0.13), Caucasus (0.13) in the Russian Federation (0.05), in the North Caucasus (0.04), on the border with the Chechen Republic (0.03), populated by Ingush (0.09), was engaged in combat operations (0.03), the capital is Magas (0.03), known for its cuisine (0.03) and culture (0.02), mountains (0.03), little-known republic (0.02).

Full definition

INGUSHETIA 330 (Vrz): republic (0.02) in the south (0.13), in the Caucasus (0.13) in the Russian Federation (0.05), in the North Caucasus (0.04), on the border with the Chechen Republic (0.03), in the east (0.01), on the border with Dagestan (0.009), Georgia (0.009), the Kabardino-Balkarian Republic (0.009), with the Russian Federation (0.006), part of the Southern Federal District (0.006), North Caucasus Federal District (0.006), located in the mountains (0.006), in the Chechen Republic (0.003), in Siberia (0.003), in Asia (0.003), in Africa (0.003), in the southern part of the East European Plain

(0.003), by the seashore (0.003), in the north (0.003), between Dagestan and the Chechen Republic (0.003), east of Moscow (0.003), inhabited by Ingush (0.09), was engaged in combat operations (0.03), there are many mountain peaks (0.03), the capital is Magas (0.03), known for its cuisine (0.03) and culture (0.02), the republic is little known (0.02), the republic is known for its population (0.01) and towers (0.01), the population is engaged in sheep breeding (0.01), has the features of the Mongoloid race 0.1, it is a sovereign state (0.01), various kinds of birds are found there, for example, turkeys, geese, monkeys, kangaroos, frogs (0.01), an anti-terrorist operation was carried out on its territory (0.01), a small area (0.009), the city of Nazran is located there (0.009), Tatars, Uzbeks, Chukchi (0.009) live there, women wear headscarves and hijabs (0.009), there is a production of cheese (0.009), koumiss (0.009), high level of corruption (0.009), cold climate (0.009), acquaintances live (0.009), terrorist acts were committed on its territory (0.006), known for its fighters (0.006) and the fact that residents had a conflict with the TNT channel because of the Comedy Woman video (0.006), the Ingush have big noses (0.006), undeveloped republic (0.006), high poverty level (0.003), high crime rate (0.006), no order (0.006), LADA Priora is widespread (0.006), fruits and berries grow there (0.006), there is wine production (0.006), there is an ancient Christian church Thaba-Yerdy (0.006), multinational (0.003), inhabited by Indians (0.003), Muslims (0.003), Hindus (0.003), was part of Ichkeria (0.003), there are Taliban (0.003), gazelle lives there (0.003), residents have a negative attitude towards Dagestan (0.003), there is a ski resort (0.003), the village of DzheyraKh (0.003), the museum-apartment of S. Ordzhonikidze (0.003), the national flag (0.003), its own elite (0.003), Ingush is one of the state languages (0.003), men wear beards (0.003), they shoot at weddings (0.003), agricultural (0.003), the Terek River flows through its territory (0.003), my place of birth (0.003).

4 Conclusion

Thus, the article outlined the theoretical and methodological foundations of the linguistic research of the Voronezh scientific school in the field of general and Russian linguistics.

Using the example of the project to develop a differential-empirical model for describing the meanings of proper names as phenomena of linguistic consciousness, it was shown how experimental methods for studying linguistic consciousness are applied, how a simple model of linguistic consciousness differs from a complex model.

Associative fields and psycholinguistic meanings of language units show the state of consciousness of native speakers: how they think, what they think about, what interests them to a greater extent, and what they are not interested in completely.

The project aimed to create a new differential-empirical model for describing the meanings of proper names as phenomena of linguistic consciousness continues.

We invite our Western colleagues to cooperate.

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