Abstract.

The article describes the linguistic association experiment, which is one of the most common methods of experimental research of language and consciousness. The potential of the linguistic association experiment is revealed by the example of the analysis of the semantics of proper names. It is stated that the association experiment is a tool that makes it possible to detect and organize the semantic content of proper names. Some results of linguistic association experiments conducted by a team of authors in the North Caucasus and Central Russia are presented. The association experiment is also used in teaching practice.

1 Introduction

Proper names are an integral part of the vocabulary of any natural language. Proper names are found in almost all functional styles and areas of language use. By nominating a specific object, a proper name connects an extralinguistic reality with a language and thereby acquires the status of a full-fledged lexical unit that functions in accordance with linguistic laws (specifically refracting them) and at the same time generates its own patterns that are absent in the language.

Proper names form a specific subsystem in the language system, which has a dual nature: on the one hand, onyms are addressed to the language system, and on the other, to the system of subject knowledge.

An important property of proper names is their increased objectivity, i.e. the presence of a closer connection with the designated object in comparison with appellatives, for the understanding of which abstract and indefinite objectivity is sufficient.

Proper names, like any other full-fledged lexical units, perform a wide range of basic functions (nominative, deictic, communicative, differentiating, phatic, aesthetic, etc.). Comparative studies of proper names of different types, the discovery of their specific properties and patterns of development lead scientists to an important conclusion: onomastic universals are based on such general properties of thinking as the selection and consolidation of typical phenomena of an extralinguistic nature [1].

The scientific linguistic discipline that studies proper names is called onomastics. The problematic field of onomastics includes a fairly wide range of issues: the boundaries of the onomastic nomination, the volume and content of the onomastic space, the classification of proper names, etc.
No less relevant and important in modern onomastics is the issue of the semantic status of proper names. The lexical meaning of a word, as a correlation between its sound complex, denotation and ideas about the object, is its key distinguishing feature. Proper names also have a sound shell that is correlated with the designated object (denotation). The problem lies in the presence of conceptual content in the structure of proper names. There is still no unified point of view on this issue in modern linguistics. Traditionally, it was believed that proper names have no lexical meaning. For example, the English philosopher John Mill (1806-1873) believed that proper names were marks, labels that make it possible to recognize and distinguish designated objects, but not to describe (characterize) them; i.e., proper names do not have meaning (do not convey any information about the object). Thus, according to Mill’s views, proper names exclusively “denote” objects, and do not connote them, like appellatives. This point of view was also shared by the English linguist A. Gardiner, who outlined his concept in his work “The Theory of Proper Names” [2].

We also agree with T. Dorzhieva’s point of view on the need to search for private methods for analyzing the semantics of proper names, one of which is the linguistic association experiment [4]. Association, as a psychological reaction, is the most appropriate tool to detect and organize the semantic content of toponyms. Linguistic association experiment is one of the most effective and productive methods of empirical research of the semantics of lexical units. E. Guts defines an association experiment as a technique that allows individuals to identify in individuals the associative series formed in previous experience [5]. E. Tarasov believes that the associative field, as a set of experimentally obtained reactions to verbal stimuli, is an external form of the existence of images of consciousness [6]. A. Leontiev emphasized that formal processing of experimental data ultimately made it possible to obtain material that could be interpreted as semantic components of experimentally studied lexemes [7]. The subjects’ explication of the semantic components of the meaning of the lexeme-stimulus is carried out thanks to the mechanisms of semantic implication during association.

A group of scientists from the Complex Research Institute of the Russian Academy of Sciences, Moscow International University, Voronezh State University and the Laboratory of Cognitive Research of Consciousness named after Said Makhdikhon Sattorov conducted large-scale linguistic association experiments in the North Caucasus and Central Russia, which examined the semantics of proper names. This article describes the methodology of the research and some of its results.

2 Methods
The successful conduct of linguistic association experiments requires the fulfillment of certain conditions and established requirements. During our experiments, the following conditions and requirements were met:

A) Stimulus material - The stimulus material was arranged in random order. To maintain the level of attention and motivation of the subjects, the list of stimuli was arranged in alphabetical order. If the list of stimuli is too long (for example, from 50 stimuli and above), it is recommended to divide it into several separate groups, each of which contains no more than 25 stimuli. If the list of stimuli contains lexemes belonging to different parts of speech, it also needs to be divided into several groups, “...balanced in terms of the content of all parts of speech in each separate part of the questionnaire” [8].

- The grammatical form of lexemes - stimuli can influence the choice of associative reactions by subjects. There is a fairly close connection between the grammatical form of the lexeme-stimulus and the grammatical form of the lexeme-reaction. For example, a sign of the grammatical gender of a lexeme-stimulus can quite significantly limit the range of potential associative reactions, thereby acting as an undesirable restrictive filter. Therefore, for example, if adjectives are used as stimuli in experiments, it is required to present them to the subjects not only in the form of masculine, but also feminine and neuter genders. This rule may also apply to proper names. For example, if we inflect proper names for case, we can get a different set of associative reactions in each case.

We did not set out to find a connection between the grammatical forms of stimuli-toponyms and the forms and types of reactions to them.

As stimulus material, subjects were presented with toponyms in the form of the nominative case, masculine and feminine genders.

- If the studied stimuli in one way or another provoke a certain choice of responses, background stimuli can be added to the stimuli list. In our case, there was no need to add background stimuli to the list of stimuli.

2. Time of the experiment

The requirement for the time allocated for the subjects to complete experimental tasks depends on the specific methodology. For example, in directed association experiments with a large list of stimuli, the time for completing tasks may not be limited, but at the same time should be recorded by the experimenter if, for example, the task is to identify the connection between the type of reactions to a stimulus and the time of their occurrence. In the written form of the experiment, no more than 10 seconds are given to complete the task. Our experiments were conducted in written form. Due to the indicated circumstances, no time limits were introduced for completing tasks. The tasks were completed within an average of 15 minutes.

3. Sampling of subjects

A representative sample in free association experiments is at least 100 subjects.
This was convincingly demonstrated by G. Cherka sova. After analyzing a large amount of factual material, she found that in experiments with a sample of 100 subjects, associative reactions with a frequency of \( R \geq 5 \) were detected. If the sample of subjects increases from 100 to 200 people, the frequency of "constant" reactions stabilizes, the number of single reactions increases by 36.41%, and the growth of the vocabulary of associative reactions is provided exclusively by low-frequency reactions \( (R=1, R=2, R=3) \).

4. Categories of subjects

The presence of different categories of subjects determines additional requirements for the conditions for conducting linguistic association experiments. Gender balance is required to study the meanings of lexical units. To achieve such a balance, it is required that the number of subjects of the opposite sex could differ by no more than 2 percent [13].

The contingent of subjects in our experiments consisted of students in the age range from 17 to 25 years. The gender balance was observed.

5. Instructions for the participants of the experiments

The instruction in the experimental study largely determines the behavior strategy of the subject, therefore its formulation is important for obtaining reliable results. The instruction must meet the following requirements: clarity for all subjects; brief formulation; absence of complex syntactic structures, etc.

In our studies, we used the methodology of a free association experiment and the methodology of a directed association experiment. The experiments were carried out during 2017-2018 in the North Caucasus and Central Russia. The stimulus material consisted of 10 randomly selected toponyms in the Russian language (Vladikavkaz, Volgograd, Voronezh, Grozny, Dagestan, Derbent, Ingushetia, Moscow, St. Petersburg, Chechnya). The subjects were students of local universities of different years of study and specialties in the age range from 17 to 25 years. Sample of subjects: 730 people.

The experiments were carried out in lecture halls of local universities in written form. Before the start of the experiment, the subjects received experimental forms with tasks and toponyms - stimuli.

The experimenter conducted an introductory briefing, in which he explained the essence of the experiment and the rules for completing tasks. The subjects were asked to complete three tasks. As part of the first task, the subjects were presented with a numbered list of toponyms arranged in alphabetical order. In each line they had to write down the first word that came to mind after reading the toponym.

As part of the second and third tasks, the subjects had to answer the following questions: what is the object designated by the toponym known for (famous) and where is it located?

Thus, the first task was formulated according to the method of a free association experiment, and the second and third tasks were formulated according to the method of a directed association experiment. There were no time limits for completing the tasks. The tasks were completed within an average of 15 minutes. Thus, during linguistic experiments using the methods of free and directed association experiments, numerous associative reactions were obtained for each stimulus-toponym. The results were processed manually.
3 Results and discussion

Volgograd

Volgograd – what is it famous for?

St. Petersburg

St. Petersburg - what is it famous for?
Saint Petersburg - where is it located?

4 Conclusion

References

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