

Basic formation of environmental education in the scientific word (based on the terminology of environmental science)

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Abstract. Key historical facts in the formation of the conceptual apparatus of the natural and human sciences from early times to the present are subjected to linguistic analysis in this article, and the idea is confirmed that many terms directly contain a decoding semantic element, and proper names lay the foundations for the behavior and worldview of their carrier, indicate the clan affiliation of the first stage and "refer" to the deeper origins of the clan, and together serve as a folk identification, reflecting cultural and religious trends that carry Vedic knowledge to subsequent generations. In the narrow linguistic aspect, the work pays attention to the structural and semantic analysis of Russian terminological and personal names, in particular, the etymology of surnames with the suffixes -ov- (-ev-), -yn- (-in-) was presented, the differences in their declension were revealed and structural and semantic features in functioning were described. In the course of the study, the authors prove the genitive linking of the indicated lexemes to nature and its ecology as the primary source of the origin of all living things, explain the close relationship between language and culture, which are formed under the influence of the environment. **Keywords:** ecology, environment, terminological apparatus, generic affiliation, gender, genitive link, declension, etymology, permanent development.

1 Introduction

In modern science, there is an increasing interest to the process of forming the conceptual apparatus of all scientific branches. The natural sciences, in particular, ecology, are no exception, which forced linguists to turn their attention to the study of both universal and national worldview, including through the millennia-old language, its external form and internal structural and semantic unity. In this regard, the process of naming a scientific concept and the culture of naming our ancestors attracts scientific views.

It seems that this is due to the fact that the preservation of traditions in naming a person as part of the culture of the people as a whole allows us to understand better the Vedic knowledge of our ancestors, reveal their worldview guidelines, pass them on from one generation to another, reflect the peculiarities of the national mentality, form the common memory of the ethnic group and promote cultural identification.

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In almost all nations, the name does not just distinguish a person from the mass, but reflects his real qualities or sets the vector for the formation of the desired qualities. Often the name in its literal sense fully revealed the nature of its bearer.

The naming of our ancestors was an important part of the life path of any person, since it endowed him with spiritual strength, indicated the way to fulfilling his destiny, and therefore shaped his future.

It is no coincidence that even the variation of a name (by the way, built according to the laws of grammar that fixes language history), indicating at each life turn of a person to the perception of his environment, to his attitude towards people, reflecting a certain social turn, first leads to visible changes in the individual, and then to their acceptance in society. Compare: Lyuba (loved by people); Love (giving love to people); Lyubov Olegovna (love born of Oleg); Lyubka (rude, hostile: a semblance of love).

Even now we are often inclined to judge a person and his character by name; this confirms the fact that the inclinations of a person are interconnected and interdependent with her name, which can change the genetic code of its bearer, his habits and the integrity of the worldview. Moreover, the layering and expansion of qualities occurs in many stages and captures several related generations: the vector of complication is directed from the surname to the name, where the middle link is always structurally occupied by the patronymic, grammatically formed according to the genitive model, which in modern Russian reflects the paradigmatic and syntagmatic relations in the statement in unity, and in the proto-language it indicated the connection of a person with his family (it is not by chance that the genitive case has the root gender).

2 Materials and methods

The original Russian names, patronymics and surnames of various eras, taken from A.I. Bazhenova [1] «Dictionary of historical ancestral names and nicknames of Slavs and Russians» as a language material and subjected to the method of historical analysis in describing the etymology of the designated lexemes; the method of contrastive analysis to determine their national specificity; comparative and contextual analysis in identifying their functional features; the method of continuous sampling and statistical calculation for the presentation of their quantitative characteristics; the method of linguistic observation and description in determining their status in the general language system; descriptive-analytical method in the theoretical interpretation of proper names with an emphasis on the description of their derivational elements and the conditions for their functioning.

3 Results

As you know, modern Russian people have three names: first name, patronymic and last name. Moreover, the name as “the personal name of a person given at birth” [8] is chosen by the parents; patronymic, “name after the father” [8] is transmitted through the father's line; and the surname, “an inherited family name added to a personal name” [8], reflects belonging to the family. This was not always the case, although the selection of a particular individual from the general mass was recorded in antiquity.

Let us turn to the history of naming and find out the origins of the fragmentary name, which later began to be assigned to a person as a priority and began to be passed on to his descendants.

Already in the early legends and tales, we find such names of people as the Sharp Eye, the Iron Heart, the Son of the Big Bear, etc. Having considered the semantic orientation of these names, we easily understand that their nature had an expressive basis and was close to

a descriptive periphrase. This led to a long chain of descriptive enumerations, which later required sorting in order to create concise brevity in circulation. However, any expression is subjective, therefore conditional, since it characterizes its bearer according to his talent or features of the organism, which most often manifested themselves not from birth. Therefore, the name that the child received at birth was assigned to him only for seven years, after which the person was called differently; at this age, it was believed that the priority qualities of the personality were already formed, and the name was given based on these traits. Moreover, according to Slavic traditions, the mother gave the first (at birth) male name to the newborn, then (at the age of seven) the father was engaged in raising the boy and gave him a new name after the manifestation of certain qualities; it was assigned to a man until the end of his life, and the name given by the mother could serve as a kind of nickname for strangers, among whom there could be evil people who want to harm a person; hence other rituals of magical protection against damage and the evil eye that have survived to this day: burn cut hair, worn clothes, garbage swept out of the house, etc.). It seems that an echo of this tradition has found its embodiment in the modern grammar of the Russian language: introducing ourselves, we say: “My name is ...”, and not “I ...”, thereby allegorically creating a kind of veil of the mystery of our name.

The two-stage naming, according to our ancestors, also contributed to the removal of a person from evil spirits (without knowing the code to the essence of a person, it is impossible to harm him): in this case, the first name (false) was often negative (for example, Nekrasa), and the second - real one reflecting the way of thinking or other aspects of the life of the named.

In addition, the ancient Slavs veiled the name with sacredness and perceived it as an object of magical rituals. Therefore, the very process of choosing a name for a newborn was subject to certain magical rules, among which the following was dominant: do not name the child by the name of a living family member (for example, in honor of mother or father), since this, according to their ideas, could take away part of personal energy and weaken health child.

The psycholinguistic side of the process of naming is of interest in the given article. An analysis of native Russian names shows that, as a rule, they consisted of two roots connected by the vowel “o” (for example, Svetozar, Radmila, Ognoslava), and the second root of the name was chosen not for the beauty of the semantic content, but showed that its bearer belonged to one or another family or its position in society. So, names of princely origin usually ended in “-glory” and called representatives of a noble family, emphasizing the spiritual or material virtues of the family: Granislav, Dobroslav, etc. For people of a humble origin, the second part of the name had more options. We present them in table 1.

Table 1. Names of non-noble people.

Root	Type of suffix and ending	Example
kind	-nya	Dobrynya
kind	-lo	Dobriilo
persistent	-yan	Stoyan

But even in the simple name of our ancestors, we find a deep understanding of being and world vision, their life guidelines and methods of spiritual development: Bogdan (Bozhko) is a child given by God. Belyan - walking along the path of light and spiritual perfection. Vyshezor - seeing through (seeing) the higher worlds, i.e. the worlds of Rule and Glory. The naming of women in ancient times had its own peculiarity: before marriage, a girl was often called by her father, and after marriage, by her husband, which for historians showed her disenfranchised, secondary position, and for linguists revealed the origins of patronymics - “names according to the personal name of the father” [10].

Patronymic in Russia began to be added to the name only from the 10th century and reflected the belonging of a person to a certain clan, the head of which was always a man, a father. The patronymic not only singled out a person from the masses, identified him, but also made it possible to exalt his family.

The grammatical construction of ancient patronymics differed from modern ones and included the lexeme son with a genitive indication of the father's name (for example, Ivan son of Vasily). Such tribal identification exalted the family, sometimes even up to the third generation: for example, Prince Vladimir Svyatoslavich, grandson Vsevolozh, great-grandson of Oleg. From the 11th century, the lexeme son in the name began to be replaced by the suffix "-ich" (Svyatoslavich), and from the 15th century - "-ov-ich" or "-ev-ich" (Svyatoslavovich). But suffixally formed patronymics were given for special merits only to the nobility; for example, distinguished princes were called eminent and could glorify their ancestors in their name. Other social groups added the suffix "-ov" to the father's name, and the word son was put before the grandfather's name: Ivan Petrov, son of Oleg. As can be seen from the last example, the patronymics of our ancestors in grammatical and sound structure were similar to modern surnames that appeared in Russia only in the 13th century (the fashion for it was borrowed from the Grand Duchy of Lithuania). Consider the origin of Russian surnames in table 2.

Table 2. Origin of surnames.

Type of formation	Derivational suffix	Example
from peasant names	-ov, (-ev)	Abramov, Matveev
from the profession	-ov, (-ev)	Plotnikov
from worldly names	-at	Gorbatyi
from geographical names	-ov, (-ev), -in	Meshcheryakov, Moskvín
from holidays	-k, -sk	Troitskii, Rozhdestvenskii

But even in most of the surnames, the names of the fathers were recorded, which showed a reflection of Russian culture. This is evidenced by one of the meanings of the word "surname": 1. Hereditary family name, added to a personal name and passing from father (or mother) to children, as well as from husband to wife [11].

Studying the culture and ideological principles of naming our ancestors, we find confirmation of the idea that Russian surnames are lexically and grammatically closely related to patronymics. The grammatical indicator of the family affiliation of surnames are suffixes with a genitive meaning, among which the following are distinguished: -oy, ov- (-ev-), -yn- (-in-).

It is in them that the answer to the question "whose?" is laid. Surnames ending with -oy and -ov are grammatically similar to adjectives, but they differ in their declension: surnames ending with -oy change as qualitative adjectives, and those with -ov change as possessive ones.

The most common surname in Russia (60-70%) ended (and ends now) with the suffix -ov- (-ev-), which was first attached to the father's name: Son of Ivan - Ivanov (-ov- - from a hard stem), son Sergei - Sergeev (-ev - from a soft stem), then (in the XIII century) - to the name of the eldest in the family, that is, the son, grandson, and great-grandson of Sergei already had the surname Sergeev. It seems that the high frequency of surnames with a designated morpheme is explained by its proto-linguistic structural and semantic content ("belonging to such and such a genus"), and also by the fact that it is formed from the colloquial pronunciation of the word "his", answering the question "whose":

- Whose house? Brata (bratov - obsolete form).

Approximately 30% of the total number in Russia is occupied by surnames with the suffix -in (-yn). Formed from feminine and masculine nouns in -a (-я), they also came mainly from the names and nicknames of their ancestors (Anna - Annin, Nikita - Nikitin).

It is in surnames with indicators -oy, -ov- and -in- that the genitive link is the most clearly visible, manifested in a special declension: they combine the endings of adjectives and nouns of the second declension of the masculine: “surnames on -oy, -ov are adjectives by origin , but are inclined according to different patterns”: surnames in -oy are declined as qualitative adjectives, and in -ov - as possessive adjectives.

For example:

1. Bolshoi ostrov, otsov stol(Nom.case.) –bolshogo ostrova , otsova stola (Gen.case) – bolshomy ostrovoy, otsovy stoly (Dat.case) – bolshim ostrovom, otsovym stolom(Inst.case.), o bolshom ostrove, ob otsovom stole (Prep.case);

Nikolaev, Nikitin (Nom.case) - Nikolaeva, Nikitina (Gen.case) - Nikolaevy, Nikitiny (Dat.case) - Nikolaevym, Nikitiny (Ins.case.) – o Nikolaeve, Nikitine (Prep.case.) .

2. Dobraya mama (Nom.case) – dobroy mamy (Gen.case.) – dobroy mame (Dat.case) – dobroy mamoi (Inst.case) – o dobroy mame (Prep.case);

Mamina pychka (Nom.case) – maminoy rychki (Gen.case) – maminoy rychke (Dat.case.) – maminoy rychkoi (Inst.case.) – o maminoy rychke (Prep.case);

Com: Nikolaeva, Nikitina (Nom.case.) - Nikolaevoy, Nikitinoy (Gen.case) - Nikolaevoy, Nikitinoy (Dat.case) - Nikolaevoy, Nikitinoy (Ins.case) – o Nikolaevoy, Nikitinoy (Prep. case.).

As can be seen from the examples, the difference in the declension of male surnames with the suffixes -ov-, -ev-, -in-, -yn- is observed in the forms of instrumental case: they accept the endings of qualitative, relative and possessive masculine adjectives: znakomYM NikolaevYM, NikitinYM.

Com: bolshim ostrovOM.

Female surnames with the suffixes -ov-, -ev-, -in-, -yn- differ from common nouns in the forms of the genitive, dative, instrumental and prepositional cases: they take the endings of adjectives in the indicated cases.

Similar changes are also noticeable when male and female surnames are declined to -ov-, -ev-, -yn- and -in- in the plural:

Nikitiny, Nikolaevy are declined like otsovy, maminy. When surnames were formed, patronymics into -ov/-ev and -in could be adjoined by the suffix -ich, which translated the adjective into the category of proper names; moreover, by shifting the stress, in one case the patronymic (Gavrilovich) was formed, in the other - the surname (Gavrilovich) [3].

Considering the meaningful content of these proper names, we come to the conclusion that their semantic and grammatical features depend on history. This proves the close connection of the Russian language with culture: the language serves as a kind of mirror reflecting the culture of our people, a feature of which is the binding of a wife to her husband (this is Petrova(adjective) wife (Peter's wife); this is Petrova (Petrov's wife). Since, as a rule, with the help of the suffixes -yn-, -in-, as well as -ih-, -yh-, (the latter were considered exclusively feminine in the northwest) were formed from common nouns and (less often) proper names of feminine nouns (which somewhat contradicted the laws of patriarchy), in the distant past, some authorities (especially in the region of the Don Cossacks) did not recognize such surnames and forcibly replaced them with others with the generally accepted suffixes -ov-, -ev-, for example, Olgin to Olgov.

Another cultural feature of the Russian people is the link to the family (this is Petrov (adjective) house; this is the blacksmith Petrov (noun)). It should be noted that in some surnames, historical memory is also mirrored by phonetic means. In this regard, the surname Ivanov, a derivative of the name Ivan, which came into fashion at the beginning of the 16th century, seems interesting. Previously, the stress in it fell on the second syllable (IvAnov) and showed that a person with such a surname either began his family from Ivan (i.e., was a

descendant of Ivan), or was Ivan's serf (without family ties). Later, they began to put stress on the last syllable (IvanOv), first, probably, to veil serfdom, then - for ease of pronunciation. It is well known that the last orthoepic variant has survived to this day.

Attention should be paid to the problem of distinguishing between native Russian and foreign surnames with the suffixes -yn-, -in- (Putin - Darwin), since the correct representation of the instrumental case depends on this:

when Russian surnames are declined, the instrumental case takes the ending -YM, when declining foreign speakers - -OM.

Compare: with PutinYM - with DarwinOM.

This suggests that the etymological correlation of the naming components is also determined by morphological features, which, showing their semantically soldered genitive binding to the full name, which includes three components (given name, surname and patronymic), refer to the original source of the naming, i.e. to the genus. At the same time, the grammatical markers of the genitive case internally dismember the integral object and clarify the information, forming semantic fields. Such a logical-semantic operation in naming contributes to understanding the process of generating its components.

4 Discussion

The list of historical and cultural literature describing the peculiarities of naming in different countries is quite wide, and the process of choosing a name among the ancient Slavs did not remain beyond the scientific boundary. In this regard, the works of V. S. Kazakov are in demand, in which special attention is paid to the origin of Slavic names and nicknames, as well as the interpretation of their meanings [4]. "Dictionary of historical root names and nicknames of the Slavs and Rus for two millennia" A.I. Bazhenova also contains "unique materials for studying the history of Slavic and Russian names", made on the basis of "monuments of ancient writing: annals, chronicles, inscriptions on stones, swords, coins, whorls, korchagakh" [1]. and others, which confirm the hypothesis that when naming a child, the Slavs took into account the divine, to some extent mystical connection of the individual with his ancestors. The philological side of the issue under study is partially reflected in the studies of A. V. Suslovoi and A. V. Superanskoï, they fix the language changes that have taken place "in the Russian nomenclature over many centuries of its existence" [12] and touch upon the main trends in its development in present time. E. Vereshchagin and V. Kostomarov [14], V.S. Kazakov [4] in their works emphasize the idea that genitive binding in naming expands the lexical semantics of naming, realizing the accumulative function of the language that stores knowledge about the world around. N. Chater, M. Stewart, M. Cauley, H. Morten [2], confirming the hypothesis that speech behavior reflects national and cultural characteristics, speak of the existence of national meanings in linguistic signs, of which the name is also a part. The works of V. Karasik describe the extralinguistic function of the language and specify the models of naming [5]. However, the linguistic side, which focuses on the word-formation model of the designated nouns, has not been studied in full detail.

5 Conclusion

Since ancient times, there has been a deep belief in Slavic culture that naming plays a huge role in shaping the life line and worldview code of each person. This belief has survived to this day; based on Vedic knowledge, modern psychological sciences prove that choosing a name for their child, parents lay the foundation for his fate.

On the other hand, the rite of naming a child was associated with nature, clan, people, homeland (it is no coincidence that in these words the common root is clan), therefore the

name of a particular person is part of folk identification: it is easy to catch his culture, way of life, faith, life settings.

All this suggests that Russian names contain a virtual code of wisdom, the mastery of which contributes to the realization of a strong family relationship between generations and serves as a natural source of inexhaustible power, cosmic energy, endows our culture with true greatness and is able to give answers to many questions. In addition, the names of specific eras reflect history, which removes linguistic veils from the questions “which family do you belong to” and “whose are you”, where exactly the genitive case is a grammatical indicator of the generic binding of our ancestors and structurally establishes a semantic connection between the lexemes of naming (name, surname and patronymic).), forming an indivisible semantic-syntactic composition, the components of which implement a single function in naming and are a materially represented indicator of grammatical, structural and stylistic interdependence.

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