

## SCTCMG 2019

### International Scientific Conference «Social and Cultural Transformations in the Context of Modern Globalism»

#### PAIRS OF NOUNS ENDING IN -ГРАФИЯ, -ГРАФ IN DERIVATIONAL NESTS OF WORDS

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#### *Abstract*

The article describes different types of correlations of nouns ending in -графия, -граф. The importance of studies on the nature of formal and semantic correlations of these words is due to their direct connection with the problem of original nests. Members of the correlative pairs are initial links of word-formation nests (WFN). The initial words are the first obligatory stage of word formation. They play an extremely important role in the structural organization and semantic structure of the nest, determine formal and semantic features of derivatives. Words ending in -графия, -граф form several types of correlative pairs; the derivation direction is established on the basis of specific structural-semantic relations between the left and right members. Two types of correlations are analyzed. They are of stable, regular, reproducible nature. They are represented in almost all the WFN of the lexico-semantic groups (LSG), at all levels of word formation. “Independent”, non-correlative words ending in -граф are described. The initial members of the word-formation nests are words ending in -граф. Nouns ending in -граф are names of devices. They are original if there is no correlate ending in -графия. The words ending in -граф are names of persons due to the lost correlation with nouns ending in -графия – names of sciences, or violation of the model. In all cases, words that do not have correlative pairs are the original ones.

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**Keywords:** Correlation, source word, derivational nest, derivability.



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## 1. Introduction

Research on word-building nests is more and more popular. The aspects of studying word-formation nests are expanding (Mikhailova, 2011; Kiklevich, 2016). There are works on the integrative theory of word-formation nests (Kazak, 2004), cognitive descriptions of the Russian derivational system, and propositional frame modeling of single-root nests (Evseeva, 2011; Kildibekova & Miniyarova, 2003; Miniyarova, 2010; Nekrasova, 2015; Osadchiy, 2006). The relevance of research is due to the need to analyze word-building processes in the functional-cognitive aspect. The new approach can reveal interaction of word-formation nominations and types of knowledge about the world, functional-cognitive and word-formation potential of the original names, determine the conceptual content of word-formation nests. Lexical semantic and structural approaches to the system of word-formation nests are dominant.

## 2. Problem Statement

One of the important problems of modern word formation is the study of characteristics of the cluster organization of special words. Despite the fruitful study of word-formation nests, there are unexplored problems related to the organization of special vocabulary, such features of the formal and semantic structure of terminological nests, trends and prospects for their development, peculiarity of the conditions and laws of interaction of semantic and derivational characteristics in these nests, etc. Meanwhile, the study of terminological nests (Basko, 2016; Tikhonova, 2018; Ushakova, 2009) is promising, since it contributes to solving these problems, expands aspects of their research (structural, semantic, functional), provide opportunities for contrastive study of the word formation system, reveals peculiarities of interaction of different subsystems of the language at the derivational level, provides rich research material for lexicographical practice, improves principles of semantization of these classes of words. The article studies the system of word-building nests of nouns ending in -графия, -граф. A comprehensive study of the original and derived members of the nests in terms of their morphemic and word-building structure, as well as semantics allows for identification of the most relevant properties that determine generating capabilities of these words. One can argue that word formation activity of these nests is determined by linguistic and extralinguistic factors (structural and semantic features of the original word; belonging to the nuclear or peripheral zone of the LSG; terminology/non-terminological meaning; monosemy /polysemy; actualization/non-actualization in the special field; the degree of assimilation by the general language). In addition, the functional aspect reflects the dynamic nature, main trends and prospects for development of terminological nests and provides information about the nature of interaction of different functional subsystems of the language.

## 3. Research Questions

The choice of nouns ending in -графия, -граф is determined by the fact that these groups of words are systemic constructs. This is determined by both extralinguistic factors (systemic organization of their denotations in special fields) and linguistic factors (structural and hierarchical order in the WFN, belonging to the same LSG, interaction at the level of individual lexical-semantic variants). High derivation of the words, prevalence in almost all areas of science and technology, frequent use, semantic and word-building

potential, a high degree of social development are also significant. Finally, the universal nature of the denotation structure makes these words convenient for comparative analysis. The study of the WFN allows us to solve problems related to peculiarities of terminological word formation.

#### **4. Purpose of the Study**

To provide a complete synchronous formal-semantic description of word-formation nests of nouns ending in -графия, identify main trends and prospects for the development of these groups of nests, it is necessary to solve the following tasks: 1) identification of the composition of the nests and their boundaries; 2) identification of derivation directions in the correlation pairs of words ending in -графия, -граф.

#### **5. Research Methods**

The descriptive method, including such techniques as observation, comparison, synthesis, transformational and component analysis, was used.

#### **6. Findings**

Research on the features of structural organization, trends and development prospects of multistage nests of nouns ending in -графия shows word-building and semantic potencies of these words and makes it possible to identify patterns of development of terminological and nominal nests. In this regard, the results of the study can be used to build a general typology of word-formation nests, word-formation paradigms and word-formation chains. They can be used to compare word-formation systems of nouns of general and special languages. The semantic organization can be used to identify semantic patterns of the nests.

#### **7. Conclusion**

The nouns ending in -графия and -граф entering into different types of correlation relations. The importance of studies on the nature of the formal-semantic correlation of these words is due to its direct connection with the problem of choosing the source of nests, namely: the original members of the correlative pairs will be the original links of the corresponding WFN.

The analysis shows that the words ending in -графия and -граф form several types of correlative pairs. The derivation direction is established on the basis of specific structural-semantic relations between the left and right members.

1. Correlation pairs of the *first* type form nouns ending in -граф with a meaning “a specialist in a given field of knowledge” and nouns ending in -графия with a meaning “science”, “method”, “type of art”, “type of production activity”: *археография – археограф*, *фотография – фотограф*, *библиография – библиограф*, *хореография – хореограф*, *типография – типограф*. The nouns ending in -графия, except for the LSG, “the method of research”, are able to correlate with the words ending in -граф – names of persons.

The researchers generate different views on the direction of derivation in these pairs of words. Relying on formal complexity of motivated words, the authors of the academic grammar of the Russian

language consider words ending in **-граф** as original members of the pairs: "Feminine nouns mean a branch of science, a technology, a profession, ... a disease, a mental or physiological feature" (Kiklevich, 2016, p. 77).

According to Melchuk (1969), "in the pairs "the system of views – the proponent of the views", ("science - scientist", etc.), the left member has a simpler meaning; the right member can have a simpler form ..." (p. 130).

The relations of derivation involves formal semantic derivability of one word from another. "The meaning of words with a derived base is defined by referring to the meaning of the corresponding primary base" (Vinokur, 1959, p. 164). The analysis shows (Ushakova, 2009) that in most of cases, the nouns ending in **-граф** – names of persons – are semantically motivated by the nouns ending in **-графия**: *археограф(ия)* – "auxiliary historical discipline that develops history and methods of publishing written historical sources"; *археограф* – "a specialist in archeography"; *хореограф(ия)* – "the art of dancing"; *хореограф* – "a specialist in choreography"; *библиограф(ия)* – "scientific description of the books and compilation of their lists, indexes ..."; *библиограф* – "a specialist in bibliography", etc.

According to Tikhonov (1971), this derivation direction is confirmed by the presence of word-formation pairs in the language, where the derivation of names is expressed semantically and formally. In oppositions, *психотерап(ия)* – *психотерап-евт* (cf. also: *стенограф(ия)* – *стенограф-ист*; *литограф(ия)* – *литограф-щик*; *полиграф(ия)* – *полиграф-ист*; *орфограф(ия)* – *орфограф-ист* and others.) the word-formation meaning "person by professional occupation, specialist ..." is expressed with the help of the suffix **-евт** - (-ист, -щик). In pairs *археограф(ия)* – *археограф*, *фотограф(ия)* – *фотограф*, *библиограф(ия)* – *библиограф*, the same meaning is expressed without suffixes. The suffix **-иј** (-ия) was truncated. The names of persons were formed without suffixes.

"These formal relations between producing words and derivatives are normal: *призывать* – *призыв*, *высокий* – *высь*, *широкий* – *ширь*, etc." (Tikhonov, 1972, p. 51). Identification of the derivation direction on a formal basis will be similar to interpretation of psychopathy as "a disease of psychopaths", drug addiction as "a disease of drug addicts", and Catholicism as "a religion of people who have religion X" (Melchuk, 1969).

1. The original, motivating members in the first type of correlative pairs are words ending in **-графия**, and derivatives are words ending in **-граф**. They are source words in the groups of nests. This type of correlation relations is stable, regular, reproducible and typical of almost all WFNs of the LSG at all word formation levels.

The words ending in **-граф** – names of persons – almost never form and do not exist without correlation with the words ending in **-графия** (LSG), especially outside the correlation with nouns – names of sciences. Therefore, they cannot be original members of the WFN. The nouns ending in **-графия** – names of sciences – are accompanied by the corresponding names of specialists. This trend as is reflected in dictionaries and special texts. The "independence" of the words ending in **-граф** is due to the lack of direct semantic correlation with the words ending in **-графия** – names of sciences (cf. doxographers; Greek *doxa* opinion) – the ancient Greek writings containing statements of various ancient Greek philosophers"; logographs (Greek *logos* word) - 1) the first representatives of historical prose in ancient Greek literature

who recorded oral legends about mythical and historical events; 2) compilers of court speeches in Athens on behalf of clients.

A word ending in -граф can exist without correlation as a result of complete or “fading” correlation with its producer: *изограф* – “the name of a painter of the 17th century.” – *изография* – “exact reproduction of any letters, manuscripts, handwritings, etc.” The meaning “*иконопись*” suggests their semantic correlation. According to Tikhonov (1974), the most difficult cases are those when semantic differences between correlating members still exist. Derivatives that have weaken semantic links with their producers are at the junction of two sections. Being elements of a synchronous system, they correlate with their previous state. Each pair requires an individual approach (Tikhonov, 1974).

2. Correlation pairs of the *second* type form nouns ending in -графия with the meaning “method of research” and nouns ending in -граф with the meaning “instrument, apparatus, diagnostic device”. The original members of pairs are words ending in -граф: “The most common types have the following components: -граф in the names of tools, mechanisms, instruments that record anything: фонограф, барограф, сейсмограф, цинкограф .... These components are used in the formations motivated by them or related to them with a suffix morph -иј-.... Meanwhile, the analysis allows for opposite conclusion. Recognition of the derivative nature of nouns ending in -граф is based on the their semantic complexity which is based on the semantics of the original noun. Cf.: *спирография* - “a functional method for studying respiratory volumes of the lungs” - *спирограф* - “a device designed for performing spirometry”. The context where correlation with a noun ending in -графия (the name of the method) is presented indirectly, through the adjective ending in -ический (Ushakova’s (2009) examples) can confirm this derivation direction: “*Опыт свидетельствует, что из имеющейся спирографической аппаратуры (аппаратуры, использующейся в спирографии) предпочтение должно быть отдано спирографу марки СТ*». Ср. также: «*Бронхоспирограф «Мета 2-40» предназначен для комплексного исследования дыхания – раздельной бронхоспирографии, а также для изучения газообмена в органах человека путем измерения потребления кислорода в целом, так и каждого легкого в отдельности.*» Thus, nouns ending in -граф are characterized by less formal complexity and are formed from words ending in -графия without suffixes against the background of the truncated suffix -иј-: *спирограф(ия)* → *спирограф*; *бронхоспирограф(ия)* → *бронхоспирограф*.

This type of correlation relationships between the words ending in -графия and -граф is realized in almost all the WFNs of this LSG (except for the nouns – names of the method – which cannot have these correlates) at different levels of word formation: *спирограф(ия)* → *спирограф(I)*; *спирограф(ия)* → *бронхоспирограф(ия)(I)* → *бронхоспирограф(II)*; *кардиограф(ия)* → *динам-о-кардиограф(ия)(I)* → *динамокардиограф(II)*; *кардиограф(ия)* → *фон-о-кардиограф(ия)(I)* → *фонокардиограф(II)*.

Cf.: *фонокардиография* - “a diagnostic method of graphic registration of heart tones and heart noise” - *фонокардиограф* - “a special device for phonocardiography”; *динамокардиография* - “a method for studying mechanical manifestation of cardiac activity based on recording of movements of the center of gravity of the chest as a result of cardiac kinematics and movement of blood in large vessels” - *динамокардиограф* - “a device by which the center of gravity of the chest moves along the longitudinal axis”; *кардиография* - “a method of registration of heart contractions; includes all methods by which cardiac activity can be recorded”.

Thus, the original members of the correlations of this type are nouns ending in -графия. They are the original members of the corresponding WFN. The words ending in -графия – names of methods – almost never form correlative pairs with the words ending in –граф – names of persons.

However, in some cases, the words ending in -графия and –граф cannot have correlative pairs.

The following nouns have no correlative pairs:

1) nouns ending in -графия denoting methods of X-ray examination (*вентрикулография* is a "method of X-ray examination of the brain by contrasting its ventricles with oxygen, carbon dioxide or contrasting substances accompanied by radiography"); *везикулография* - "a method of radiography of the seminal vesicles by introducing contrasting substances", *ангинография*, *аортография*, *венография*, *вазография*, *флебография*, *урогенитография*, *тиелография*, *метросальпингография* and other methods based on chemical reactions;

2) nouns with the meaning "a method of production of something," for example: *альграфия*, "a method used for flat printing"; *рефлексография* - "a method for obtaining negatives on a photosensitive film".

The words of the peripheral zone (*брехиграфия*, *пазиграфия*, *адресограф*, *аффинограф*, *барометр*, *батиграф*, *батитермограф*, *гигрограф*, *пиранограф*, *гигротермограф*, etc.) have no correlative pairs.

The words that do not have correlative pairs are original members of the nest.

There are words ending in -графия and -граф which do not have semantic correlations: *типография* is "an enterprise where books and magazines are printed" – *мипограф* is "a beetle".

These words are original members of independent nests.

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