Analytical and Philosophical Issues of Studying Current Problems in the Development of Modern Derivatology

Yuri Shepel
Oles Honchar Dnipro National University, Dnipro, Ukraine

Nataliia Pidmohylna
Oles Honchar Dnipro National University, Dnipro, Ukraine

Dimona Amichba
Oles Honchar Dnipro National University, Dnipro, Ukraine

Olena Shkurko
Oles Honchar Dnipro National University, Dnipro, Ukraine

Iryna Muliar
Oles Honchar Dnipro National University, Dnipro, Ukraine

Abstract---The relevance of the research undertaken is determined by the insufficient description of the cognitive approach in relation to word formation units, the unjustifiably rare use of word formation data by the conceptology that is actively developing in linguistics, and the need to form semantic-cognitive analysis procedures relevant to the research object to determine the boundaries of complex units of the word-formation level. The article focuses on the philosophical issues of linguistics, in particular word formation. The peculiarity of linguistics at the end of the 20th century, the essence of which is the recognition of the cognitive conditioning of the main linguistic units and structures, is noted. It is noted that the materialization of certain concepts with the help of linguistic means always consists of a certain ordering, systematization, distribution by headings, categorization. The main function of the analysis and classification of derived words is determined not as groups of derived words or a system of derivational types, but the principles of construction and deployment of complex derivational fragments (blocks, rows, fields), taking into account derivational units larger than a word, analytical analogs of derived words, constructions in the derivation function, the only way to represent the derivative and its semantics.

Introduction

The most important feature of linguistics at the end of the 20th century is the recognition of the cognitive conditioning of the main linguistic units and structures. Materialization of certain concepts with the help of linguistic means is a certain ordering, systematization, distribution by headings, categorization. Various associations of related words (word-forming chains, paradigms, more complex structures, up to word-formation rows and their fragments), of course, can be included in the field of consideration from a cognitive point of view. However, in our opinion, this will become possible only if derivatologists abandon the traditional principles of modeling complex units of the word formation system, revise those initial positions that served as the basis for the creation (for the purpose of describing and systematizing) just such (and not others) models, which ultimately determined in the mid-70s of the twentieth century, prevailing ideas on the word formation system. Orientation only to words, inattention to their model correspondences of a non-one-word structure within the boundaries of the same traditionally considered categories (word-formation type, chain, paradigm) led to the exclusion of the factor of inter-level interaction from the description model of the word-formation system. At the same time, the analysis is not of groups of derived words or a system of derivational types, but the principles of construction and deployment of complex derivational fragments (blocks, fields), taking into account derivational units larger than a word, analytical analogs of derived words, constructions in the derivational function of the only way to represent derivational semantics, allows us to see that word formation and the constituent units of its study – derived words – are multifaceted, multifocal, that some dictionary definitions are not just operations with concepts, but the way of existence in the language of a particular concept. Lakoff (1998), substantiated those different types of cognitive connections can underlie the expansion of the volume of a particular category.

The study of the ways and methods of fixing the structures of knowledge (and derivational structures of varying degrees of complexity, of course, belong to such) convinces that word-formation types, chains, paradigms as models of their own word-formation categorization with rigidly established boundaries for them in the theory of word formation actually lie at the heart of semantically and formally more complex groupings of related units, the boundaries of which are not so strict and rigid, rather blurred, and, most importantly, they unite units of different structures. Analysis of the patterns of interaction of such units of adjacent levels, identification of cognitively significant oppositions within these categories allows better understanding of the cognitive essence of derivation processes.

The relevance of the research undertaken is determined by the insufficient description of the cognitive approach in relation to word formation units, the unjustifiably rare use of word-formation data by the conceptology that is actively developing in linguistics, and the need to form semantic-cognitive analysis

procedures relevant to the research object to determine the boundaries of complex units of the word-formation level. Since at present in the center of linguistic research there are various issues related to the analysis of the semantic side of the language – the semantic structure of its units, methods of nomination and semantic derivation, the main purpose of the article is seen in the description of the meaning of linguistic units, structures and models associated with the presentation of all kinds of facts conceptualization of knowledge, general mechanisms of units functioning and models of knowledge representation, as well as specific ways of cataloging and categorizing knowledge, researching the features of structuring and functioning of different types of knowledge encoded in the main word-formation linguistic units and their associations.

The main methodological principle accepted in the study is the understanding of the language and its lexical units as a set of systems of various forms, meanings, and ways of using linguistic signs. The methodological basis of the study was the basic provisions, concepts and attitudes of cognitive linguistics, most clearly formulated in the works of such domestic and foreign linguists as Kubryakova (2004); Lakoff (1998); Langaker (1991; 2008); Minskiy (1979); Roche (2005) and some others.

Analysis of scientific approaches to the classification and interpretation of complex units of the word formation level

The anthropocentric, psychological and cognitive lines of development of the science of language, a clear awareness of the great explanatory power and scientific perspective that lie behind the functional approach to the analysis of linguistic units, models and phenomena of language, led scientists of different scientific interests to a critical rethinking of many linguistic problems that seemed finally resolved.

The same fully applies to word formation, since by the end of the 80s of the twentieth century, many linguists had a feeling that all the main issues of modern derivatology had already been resolved. This, apparently, can explain the noticeable drop in the interest of researchers in the issues of derivatology by the end of the twentieth century. However, the formation at the beginning of the XXI century. cognitive direction in linguistics opened new research avenues and allowed to re-evaluate the previously obtained results. The works that have appeared in recent decades, following this direction, in many respects clarify, or even completely revise many decisions.

Epistemology of units derivation system

As we have already noted, word-formation units and word-formation phenomena in the framework of cognitive linguistics have received a new and very promising perspective (Tendahl & Gibbs Jr, 2008; Kertész et al., 2012). However, this does not mean that we have any reason to completely abandon the theoretical positions and constructions developed within the traditional structural-system conceptual paradigm. Today, the question is only raised about the clarification and development of ideas expressed earlier, in particular, this concerns the issue of the classification of units of the word-formation system, proposed back in the 1970s in

XX century and which is extremely important for functional and conceptual analysis, as well as very useful for derivational and, more broadly, linguistic theory, supplemented at the present stage with the concepts and theories of such researchers as Nikolaev (2010; 2011); Katagoshchina (1976; 2012); Araeva (2000) and many others.

It is known that in Russian Grammar – 80, the word-formation system of a language is defined, on the one hand, as a set of word-formation types in their interaction, on the other hand, as a set of word-formation entries. This definition has long been seen as an internal contradiction: word-formation types in their totality interact within the framework of the system, but rows do not. This contradiction is caused by the fact that the consideration of word-formation types and rows in the Grammar of the Russian language – 80 is not carried out on the same grounds. And this does not provide an opportunity for a holistic description of the derivational system through the interaction of word-formation types and nests. Meanwhile, these complex units are interconnected, they interact with each other, which determines the dynamic development of the word-formation system (Russian grammar, 1980).

As you know, the word-formation level of a language includes a large number of units that are heterogeneous in their composition and system-forming properties. The classification constructions of the word-formation system are traditionally based on various differentiating features. So, for example, in the Grammar of the Russian language – 80, the lexical and grammatical nature of the derived words is used as such a feature, which makes it possible to single out certain word-formation classes on a part of speech basis (Russian grammar, 1980). All derivatologists recognize this approach as completely legitimate, logical and expedient, since the word-formation structure of different parts of speech in a language, undoubtedly, has its own specifics.

A language system in its most general form is a collection of interrelated language units that function at a certain stage of its development. Consequently, recognizing as the main derivational unit, for example, a derivative word, a derivational system can be defined as a specially organized set of derivative words. At the same time, it should be noted that only those formations that have system-forming properties can be called the main units of the system. Therefore, in modern derivatology, another point of view has appeared, according to which the main classification unit of the word-formation system should be the word-formation type. Proceeding from this, the word-formation system is defined as a set of word-formative types of language in their interaction, as well as a set of word-formative nests. This understanding of the word-formation system allowed A.N. Tikhonov in the late 70s of the XX century talk about two subsystems of word formation: the first subsystem, in his opinion, is formed by a set of word-formation types of all parts of speech in their interrelationships and interactions, the second is a set of word-formation nests of all parts of speech. The researcher emphasized that:

- both subsystems are interconnected and only together form an integral system of word-formation;
- they are not two different parts of one whole, but represent the system in its different sections, in two sections (Tikhonov, 1971; 1974; 1982; 1989; 2001).

Domestic linguists, evaluating the word-formative type as the reciprocal of the word-formative nest, believe that the integral word-formative system in the language is formed by these "two subsystems, which are not different parts of one whole, but represent the system in its different sections, in two cuts – superficial (typical) and deep (nest)" (Moiseev, 1987; Kade, 1993). At present, representatives of Kemerovo linguistic school, working under the guidance of prof. Araeva (1994; 2000), within the framework of the concept accepted in this school, the word-formation type is thought of as a mental-linguistic category, which is one of the ways of modeling the cognition of the world. Modeling is based on the selection of frames and their constituent propositions as formats that provide a cognitive and semantic systemic consideration of linguistic units and phenomena that function in a specific way within these units.

The problem of word formation motivation and classification of complex units of word formation

The study and analysis of the systematic approach in the study of word-formation acts, which are very characteristic of the modern theory of word-formation, put forward the problem of the hierarchical organization of word-formation relations. In this regard, the analysis of word-formation nests, which play an extremely important role in the systemic organization of word formation, has acquired particular importance. In modern derivatology, the main approach to the study of words continues to be nested. In accordance with the given definition in Russian grammar – 80, word-formation nests of the Russian language fall into root and affix (prefix and suffix), each of which, depending on the aspect underlying its description, is divided into eight types:

- root lexical;
- root word-formative;
- root morpheme;
- root lexico-derivational;
- affix lexical;
- affix word-formative;
- affix lexico-derivational;
- affixal morpheme (Araeva, 2000; Russian grammar, 1980; Evseeva, 2011; Kade, 1993; Katagoshchina, 1976; 2012; Kovalik, 1978; Kubryakova & Iriskhanova, 2007; Kyrtepe, 2010; Nikolaev, 2010; 2011; Tikhonov, 1971; 1974).

Today, it is safe to say, out of the eight named types of entries, five have been described: root lexical; root derivational, root morpheme, affixal morpheme; root lexico-derivational. Meanwhile, advances in the study of word formation and modern methods of linguistic analysis make it possible to go beyond the pair "motivator – motivate" and begin to correctly formulate problems focused on the study of various aspects of the structure of the nest. Therefore, the problem of studying word-formation rows and many approaches to their description have recently expanded significantly. So, today linguists consider the word-formative row not only as a microsystem, which is the focus of the interaction of grammatical, word-formative and lexical relations, but also as a logical structure that models reality through a system of correlated motivational features.

Thus, the cognitive direction in linguistics proposed new approaches to the analysis of word-formation units, in a different way than in the traditional one, describing and structuring complex units of the word-formation system. Within the framework of these approaches, word-formation units are defined as having not one, but two main functions: they are interpreted not only as units containing information in an ordered form, objectifying data about the world, but also as generating the conceptual and linguistic world of knowledge. Linguists, developing the principles of combining one-root words into lexical microsystems and word-formation rows, when describing rows, take into account both semantic and structural aspects, build hypothetical, potential entries, and develop models for a comprehensive description of word-formation nests (Suryasa et al., 2019). All of these studies demonstrate, to varying degrees, the application of a cognitive approach to nest analysis and the rethinking of linguistic theories in the light of emerging paradigms of scientific knowledge. Currently, none of the linguists denies the fact that various associations of related words (word-formation chains, paradigms, more complex structures, up to word-formation nests and their fragments, as well as word-formation series) can be included in the field of consideration from a cognitive point of view vision. It seems to be possible provided that the traditional principles of modeling complex units of word-formation are abandoned, when the initial positions are revised, which served as the basis for creating (for the purpose of describing and systematizing) just such (and not other) models (Kubryakova, 1980; 2004; 2007). But, as the scientific material of the latest research in the field of word formation shows, various types of cognitive connections can underlie the expansion of the volume of a particular category. Thus, the analysis of the patterns of interaction of units of adjacent levels, the identification of cognitively significant oppositions within the categories allows better understanding of the very cognitive essence of derivation processes.

The analysis of complex units of word formation within the framework of the cognitive paradigm turns out to be not only relevant, but also very promising. Unfortunately, the existing work in this area so far has been aimed only at revealing the cognitive essence of some one of the main complex units of derivatology. That is, linguists have developed and, in many respects, continue developing cognitive methods of analysis in relation to only one word-formation unit, leaving others aside, which, in our opinion, does not allow establishing all systemic relationships between units. But despite the undoubted differences, derivational units have a number of characterological similarities (Otakhonova, 2021; Netra, 2016). This is their hierarchical structure, the similarity of the processes and relations of formal and semantic deducibility of derived words that fill complex units, as well as the continuity of the semantic space, organized by systemic semantic and word-formative connections between the values of derived units and / or between the values of the basic and derived units. It is the presence of these common fundamental features that allows, we believe, to apply the same analytical approach to complex units of word formation, which reveals, models and explains the revealed community.

The question of the functional-cognitive principle of interpretation of derivative units in the language system

The functional-cognitive principle of describing derivatives, based on the functional nature of all spheres of human life and activity, that is, when the functional study of language is complemented by a cognitive aspect. In the course of the development of cognitive linguistics, the thesis about the inextricable interconnection of the processes occurring in human memory and determining the construction and understanding of linguistic messages has become generally accepted (Riemer, 2019; Kravchenko, 2006). Therefore, from the standpoint of cognitivism, lexical meaning is considered as a reflection of certain layers of knowledge and experience fixed in the language, closely related to human activity. Cognitive analysis, presented in a number of theses defended in recent years, makes it possible to reveal what structure of knowledge is fixed in the lexical unit, how the compression and expansion of knowledge is carried out in a word, and how the various degrees of its detailing are manifested. Word formation is a functioning system capable of self-organization as a result of the interaction of natural phenomena of an extra- / intralinguistic nature (Keohin & Graw, 2017; Pelepeychenko et al., 2021). Therefore, the functional-cognitive approach to the description of word formation used in recent years by many researchers has helped to discover such properties of the dictionary, which already initially predetermine the behavior of lexical units in speech communication.

Currently, none of the researchers doubts that the reliance on cognition in research contributes to the identification of implicitly and explicitly expressed semantic components in the semantic structure of not only isolated words, but also entire blocks of tokens associated with a global concept. Is it good or bad? – Undoubtedly, good, as it opens the way to a functional-semantic classification of the lexical system of the language, taking into account the knowledge that is recorded in dictionary units.

The word-formation nomination has always been associated with the presence of the phenomenon of objective reality, which had to be found, using the word-formation possibilities of the language, the appropriate designation (Needham et al., 2005; Bar-Tal, 1996). Thus, the main task in the study of word formation at the present stage is reduced to the answer to the question of which phenomena of reality can be denoted by the derived vocabulary and what is the specificity of derivational relations in the representation of world phenomena. From the point of view of the hierarchy and systemic nature of the language, the solution of such a problem is facilitated by techniques in which the ability of linguistic signs (units) to be typified, both semantic (mainly) and formal, is revealed.

The question of dynamics and the formation of the word-formation rows as a complex unit

The naming process is known to be fundamentally dynamic. Therefore, the completeness of the description of the onomasiological properties of derivative words is facilitated by the study of five factors of the derivational act, such as:

- the type and nature of the semantics of the derivator, as well as (in this regard) the functional specificity and semantic possibilities of word formation methods;
- the paradigmatic and syntagmatic properties of the producing words, the relationship and interdependence between them, their role in determining and realizing the derivational potencies of certain categories of the producing words;
- valence properties of units (category units) that enter into interaction during the formation of derivative words;
- interaction, the degree of functional connection of word-formation categories with certain morphological categories, with categories and types of structures of the syntactic level;
- various aspects of the relationship of derivational-onomasiological phenomena to the linguistic picture of the world (Kubryakova, 1980; 2004).

A new problem of the last decade is the issue of studying the formation of word-formative series and evolutionary processes of word-formative units. Let's not forget that the main results of the study of the word-formation system were obtained within the framework of the analytical system-structural direction. Proceeding from this, in derivatology it is generally accepted that a systematic approach to the study of its complex units is equally fundamental. The opposition of formant and root associations underlies the systemic organization of word formation, therefore, the description of system connections of complex word formation units, the study of the system structure of word formation presupposes the identification and comprehensive characterization of its specific manifestations (Tikhonov, 1971; 1974).

Description of word-formation rows as sets of nominative units is a way of in-depth knowledge of objects of word-formation determination from the point of view of the universality and uniqueness of their semantic structure, and also allows us to identify similarities and differences in the means of objectification of the same mental content and the dependence of intra-lingual semantic processes on system-structural features languages (Wolpert et al., 2001; Truong, 2016). The adoption of a word-formation rows as the main unit of word-formation allows avoiding terminological discrepancies associated with concepts such as a word-formation model, a word-formation type and integrating the concepts of a word-formation chain and a word-formation paradigm. As a word-formation unit abstracted from specific derivative and derivative units, the word-formation rows is a universal concept that takes into account both the formal and the semantic relationship between derivative and derivative words, the number of which is not strictly limited either by the framework of the word-formation pair, or the fact of their real existence in the language.

In recent years, the question of studying the evolution of word-formation rows, identifying the dynamics of the functioning and development of their links has been increasingly raised. Such interest in the diachronic study of word-formation rows is explained by the need to describe theoretical and practical issues of historical word formation, the main task of which is to describe the formation and development of the word-formation system of a particular language (Ehret & Merzenich, 1988; Pignotti & Shah, 1992).

Scientific studies of domestic and foreign linguists provide a deep and complete analysis of the evolutionary processes that took place at the phonetic, morphological and syntactic levels of language development, but they do not consider in detail the changes that took place in the word-formation system, although, it must be said, certain issues of historical word formation attracted attention as foreign and domestic scientists who considered certain problems of modern word formation (Evseeva, 2011; Katagoshchina, 2012; Kyrtepe, 2010; Nikolaev, 2010; 2011; Stepanov, 1994; Ulukhanov, 1996). At the same time, a thorough analysis of the scientific literature covering the problems of historical word formation allows us to speak about insufficient study of the word formation system of the language in diachrony. Difficulties in studying the word-formation system of a language at various stages of development are associated with the fact that the process of language development is a process of its steady, albeit complex and sometimes contradictory improvement, since each synchronous cut is, on the one side, the result of a previous movement, and on the other side, – contains potential opportunities for further development. The analysis of word-formation processes in diachrony makes it possible to penetrate into the essence of the linguistic nature of the word-formation relations of the studied language and contributes to the further development of more general problems of comparative-historical linguistics. Turning to the theory of word-formation rows in the study of the word-formation system makes it possible to identify the features of the word-formation system of a particular language at various stages of its historical development. At the same time, for a complete description of the entire word-formation system, it is necessary to study both productive and unproductive, but preserved in the modern language as part of a number of derivatives. Therefore, in recent years, historical word-formation has become relevant. The study of the evolution of word-formative rows is usually based on the historical periodization of the development of a particular language, and which has become widespread due to the possibility of reflecting the main stages in the development of a written literary language.

Comparative analysis of word-formation processes in diachrony makes it possible to penetrate into the essence of the linguistic nature of word-formation relations of the studied language and contributes to the further development of more general problems of comparative-historical linguistics. The theory of word-formation rows is applicable not only to the word-formation system, say, of the modern Russian or English / French language, but also makes it possible to identify the features of the word-formation system of a particular language at various stages of its historical development. The application of the theory of word-formation rows to the study of the word-formation system of the studied language in the diachronic aspect allows us to trace the self-organization of its word-formation system in the process of its evolution. The novelty of this kind of research that has appeared in the last decade (especially in the French language) is seen in an attempt to apply the theory of word-formation rows in the diachronic aspect and the linguosynergetic approach in word formation.

Conclusions

Studies of recent decades show that the development of word-formation is carried out through word-formation entries, and the fixation, preservation of vocabulary – through word-formation series. It is the word-formation rows that perform the function of word fixers in the system of language and word-formation, in particular, which, in fact, has recently led to the appeal to the diachronic and synchronic study of this unit of the word-formation level.

And the last thing we would like to focus on. As we noted earlier, the role of the functional approach to the description of linguistic phenomena is increasing in modern linguistics. Despite the existing differences in its interpretation and application to specific facts of the language on the part of various schools and directions, it is quite possible to accept that the essence of this approach is to identify those circumstances (i.e., those linguistic and non-linguistic factors and conditions) of the functioning and interaction of linguistic units of different levels that determine the generation or choice, reproduction of units capable of direct participation in the act of nomination or speech communication.

The closest to the idea of "active grammar" is the description of word-formation on the basis of the already proven existence of onomasiological classes and categories. Such an approach is even more necessary since the classification of onomasiological unities itself needs further study, in the establishment of its specificity, areas and the degree of interaction with such more universal bilateral linguistic unities as semantic categories and functional-semantic fields, or with lexico-grammatical and proper grammatical classes and categories. Thus, the prospect of further research in the field of word-formation is seen in logically showing the hierarchy of the word-formation system as an ordered set of units – constellations, alligatures, rows and nests, contracts and sub-nests, which are in relation to interconnection and hierarchy since this system, like its components, serves the task of ordering the entire vocabulary of the language.

References

Araeva, L.A. (1994). *Word-formation type as a semantic microsystem. Suffix Substances.* Kemerovo: Kuzbassvuzizdat.

Araeva, L.A. (2000). Word-formation type: to the problem of definition. In *Problems of Russian Studies.* Tomsk: Publishing House of Tomsk State University. 57-58.

Bar-Tal, D. (1996). Development of social categories and stereotypes in early childhood: The case of "the Arab" concept formation, stereotype and attitudes by Jewish children in Israel. *International journal of intercultural relations*, *20*(3-4), 341-370. https://doi.org/10.1016/0147-1767(96)00023-5

Ehret, G., & Merzenich, M. M. (1988). Complex sound analysis (frequency resolution, filtering and spectral integration) by single units of the inferior colliculus of the cat. *Brain Research Reviews*, *13*(2), 139-163. https://doi.org/10.1016/0165-0173(88)90018-5

Evseeva, I.V. (2011). *Cognitive modeling of the word-formation system of the Russian language (based on complex units):* thesis for the degree of Full Doctor in Philology. Kemerovo: Kemerovo State University.

Kade, T. Kh. (1993). *Derivational potential of suffix types of Russian nouns.* Maykop: Adygean Republican Book Publishing.

Katagoshchina, N.A. (2012). *How words are formed in French.* Moscow: KomKniga.

Katagoshchina, N.A., Gurycheva, M.S. & Allendorf, K.A. (1976). *History of the French language.* Moscow: Vysshaya shkola.

Keohin, H. C. ., & Graw, N. J. . (2017). Linguistic and cognitive ability of children before five years old on their effort to communicate action. *Linguistics and Culture Review*, *1*(1), 50-59.

Kertész, A., Schwarz-Friesel, M., & Consten, M. (2012). Introduction: Converging data sources in cognitive linguistics. *Language Sciences*, *34*(6), 651-655. https://doi.org/10.1016/j.langsci.2012.04.006

Kovalik, I.I. (1978). The root of the word and its role in the word-formation nest. In *Actual problems of Russian word formation.* Tashkent: Nizami Tashkent State Pedagogical University, 39-42.

Kravchenko, A. (2006). Cognitive linguistics, biology of cognition and biosemiotics: Bridging the gaps. *Language sciences*, *28*(1), 51-75. https://doi.org/10.1016/j.langsci.2005.02.002

Kubryakova, E.S (1980). Dynamic representation of a synchronous language system. In *Hypothesis in modern linguistics.* Moscow: Nauka, 217-259.

Kubryakova, E.S. (2004). *Language and knowledge. Towards a knowledge of language: Parts of speech from a cognitive perspective. The role of language in the knowledge of the world.* Moscow: Yazyki slavyanskoy kultury.

Kubryakova, E.S., Iriskhanova, O.K. (2007). Linguistic abstraction in category names. *Notices of the Russian Academy of Sciences. Literature and language series, 66*(2), 3-12.

Kyrtepe, A.M. (2010). *Macro-units of word formation as a form of linguistic objectification of the concept: on the material of word-formation nests and word-formation category with the meaning of femininity in Russian:* thesis for the degree of PhD in Philology. Saratov: N.G. Chernyshevsky Saratov State University.

Lakoff, J. (1998). *Thinking in the Mirror of Classifiers. New in foreign linguistics.* Moscow: Progress.

Langacker, R.W. (1991). *Concept, image, and symbol: The cognitive basis of grammar.* Berlin & New York: Mouton de Gruyter.

Langacker, R.W. (2008) *Cognitive grammar: A basic introduction.* New York: Oxford University Press.

Minskiy, M. (1979). *Frames for the presentation of knowledge.* Moscow: Mir, Energiya.

Moiseev, A.I. (1987). *The main issues of word formation in modern Russian literary language.* Leningrad: LSU.

Needham, A., Dueker, G., & Lockhead, G. (2005). Infants' formation and use of categories to segregate objects. *Cognition*, *94*(3), 215-240. https://doi.org/10.1016/j.cognition.2004.02.002

Netra, I. M. (2016). Lexical representations of prototypes of semantic primitives in balinese tradition and their meaning configuration in english. *International Journal of Linguistics, Literature and Culture*, *2*(2), 38-49.

Nikolaev, G.A. (2010). *Russian historical word formation: theoretical problems.* Moscow: LIBROKOM.

Nikolaev, G.A. (2011). *Russian and Slavic word formation: Opera Selecta.* Kazan: Publishing House of Kazan University.

Otakhonova, K. (2021). Cognitive principle of foregrounding in the mass-media. *International Journal of Linguistics, Literature and Culture*, *7*(4), 194-200.

Pelepeychenko, L., Zatsnyi, Y., & Zaitseva, M. (2021). Cognitive dissonance as factor of influence in American courtroom discourse. *Linguistics and Culture Review, 5*(S3), 173-186.

Pignotti, A., & Shah, R. K. (1992). Effectiveness-number of transfer units relationships for heat exchanger complex flow arrangements. *International journal of heat and mass transfer*, *35*(5), 1275-1291. https://doi.org/10.1016/0017-9310(92)90184-T

Riemer, N. (2019). Cognitive linguistics and the public mind: Idealist doctrines, materialist histories. *Language & Communication*, *64*, 38-52. https://doi.org/10.1016/j.langcom.2018.09.002

Roche, J. (2005). *Fremdsprachenerwerb. Fremdsprachendidaktik*. Tübingen: A. Francke Verlag.

Stepanov, Yu.S. (1994). Word: From an article for a dictionary of concepts: Concept of Russian culture. *Philologica*, *1*(2), 11-31.

Suryasa, I.W., Sudipa, I.N., Puspani, I.A.M., Netra, I.M. (2019). Translation procedure of happy emotion of english into indonesian in kṛṣṇa text. *Journal of Language Teaching and Research, 10*(4), 738–746

Tendahl, M., & Gibbs Jr, R. W. (2008). Complementary perspectives on metaphor: Cognitive linguistics and relevance theory. *Journal of pragmatics*, *40*(11), 1823-1864. https://doi.org/10.1016/j.pragma.2008.02.001

Tikhonov, A.N. (1971). *Problems of compiling a nested word-formation dictionary of the modern Russian language.* Samarkand: A. Navoi Samarkand State University.

Tikhonov, A.N. (1974). *Formal-semantic relations of words in the word-formation nest*: thesis for the degree of Full Doctor in Philology. Moscow: Institute of the Russian Language of the Russian Academy of Sciences.

Tikhonov, A.N. (1982). Problems of studying complex units of the word-formation system. In *Topical issues of Russian word formation: materials of the scientific conference,* (pp. 3-13). Tashkent: Fan.

Tikhonov, A.N. (2001). The state of scientific development of the nest and the prospects for its research. In *Actual problems of Russian word formation: Materials of the VII International Scientific Conference,* (pp. 10-21). Yelets: I.A. Bunin Yelets State University.

Tikhonov, A.N., & Pardaev A.S. (1989). *The role of sockets of one-root words in the system organization of Russian vocabulary: Reflected synonymy. Reflected homonymy. Reflected antonymy.* Tashkent: Fan.

Truong, H. M. (2016). Integrating learning styles and adaptive e-learning system: Current developments, problems and opportunities. *Computers in human behavior*, *55*, 1185-1193. https://doi.org/10.1016/j.chb.2015.02.014

Ulukhanov, I.S. (1996). *Units of the word-formation system of the Russian language and their lexical implementation.* Moscow: Institute of the Russian Language of the Russian Academy of Sciences.

Wolpert, D. M., Ghahramani, Z., & Flanagan, J. R. (2001). Perspectives and problems in motor learning. *Trends in cognitive sciences*, *5*(11), 487-494. https://doi.org/10.1016/S1364-6613(00)01773-3