Cognitive Approach to the Theory of Abbreviation

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Abstract

The formation of abbreviations is explained mainly by the action of two factors: extralinguistic and intralinguistic. Extralinguistic factors include social transformations, scientific and technological progress, and interethnic changes. Being qualitative in nature, they are characterized by dialectical dynamics. Intralinguistic factors should be understood as the effect of internal laws that determine the evolution of language. In language there is a dialectical struggle of opposites, which determines its self-development. These opposites can be called language antinomies, each identity is the key to the stability of the system, the specific resolution of any of these opposites generates new collisions, new contradictions in the language (in principle-of the same order) and, consequently, their final resolution is impossible: they are a constant stimulus for the internal development of the language. The stimulus to abbreviate lies with the speaker, who has full knowledge of information, in the process of communication and unilaterally seeks to reduce multi-component and cumbersome terms represented by long words, complex words and phrases. Language signs are replaced with codes by communicants, and familiar words are shortened.

Keywords: cognitive science, dialectics, antinomy, abbreviation, structure.

1. Introduction

Over the past few years, cognitive science has firmly established itself as the most promising field in linguistics. The cognitive-discursive paradigm of linguistic knowledge covers several areas of research, Cognitive science is interdisciplinary and includes several areas of knowledge related to the ability to think, speak, feel, and express thoughts and emotions in discourse. They are artificial intelligence, linguistics, psychology, and philosophy (Aitchison, 1992: 29).

On the one hand, language affects mental person’s ability to think and express their thoughts in speech. The language fulfills a very important function when the thoughts or actions of the mind are drawn into words, and as words they become accessible means of communication for other members of the community. Information about thoughts, feelings, and expressions of will is available not only to participants in a particular act of communication, but can also be stored for future generations.
The cognitive-discursive paradigm of linguistic knowledge is applied to the study of abbreviation.

Changes of the language are subject to action of laws of dialectics.

In linguistics dialectic laws acquire the name of “principle of least efforts”, “qualitative peculiarities of opposites”, antinomies.

Abbreviated signs are used widely to nominate entities of the surrounding material world.

Abbreviations verbalize the complex information about the professional objects perceived by the nominator in their undivided and undifferentiated integrity.

Structure of abbreviations has been classified into several class-groups.

On the other hand, language conveys feelings, namely the ability to perceive and express the world around us and the expression of will in the form of manifestations of desire, will, or command.

2. Connection of the language and thinking with psychology

Language and thinking are inextricably linked with each other and other types of social activities that have different essence. Language according to the classical definition of O. S. Akhmanova is “one of the original semiological systems, which is the main and most important means of communication for members of this human collective, for whom this system is also a means of developing thinking, transmitting cultural and historical traditions from generation to generation, etc.” (Akhmanova, 2005: 530). Language is represented by a system of signs and has a social nature, since it appeared as a means of communication in the process of joint activity.

A. N. Leontiev put forward the following definition of thinking: it is “the process of conscious reflection of reality in such objective properties, connections and relationships that include objects that are inaccessible to direct sensory perception” (Leontiev, 2004: 275). The theory of speech activity was transposed into linguistics and then formed into a separate discipline of psycholinguistics. It is important to note that thinking, in addition to reflecting the surrounding reality, manifests itself in the form of active knowledge of it. In this case, thinking supports the process of human cognitive activities, which is characterized by generalization and indirect reflection of the surrounding picture of the world. Thinking is usually considered as a complex process of human cognition about human existence through the brain in the form of concepts, judgments, and conclusions. Brain activity gets its verbal and logical design through natural language.

During the reflective activity of the brain, the surrounding picture of the world is modeled in all the variety of patterns and connections (Gamezo, 1999: 19). Thinking, which has a psychic nature, allows not only to know the essence of objects and phenomena, but also to analyze the objects of knowledge and predict the laws of evolution.

Mental processes responsible for processing and transforming information are called “cognitions”. Cognitive processes associated with the transformation of information are aimed at studying the world view of the individual, as well as understanding human personalities by themselves and their place in the surrounding world. Within the framework of cognitive activities, the individuals study and evaluate themselves. Data coming from the senses to the brain in the form of mental representations are transformed into cognitions, presented in the form of images, frames, and scenarios. Cognitive processes are characterized by mental actions to process and transform information from one structure to another. Thus, cognitive activity combines interrelated mental processes: mental and linguistic.

Within the framework of psychological knowledge, the mental nature of thinking is ideal, while, being a physiological phenomenon, language has a material essence and it is...
implemented as a system of signs. Through language, the material design of mental activity is provided. The nature of language and thinking has been widely studied in linguistics, it is important to mention that, discussing the nature of language and brain activity, German linguist August Schleicher (1821-1868) came to the conclusion about the unity of language and thinking, identifying them through the unity of the content and form of the language sign.

3. Language and thinking in the light of the dialectical-materialistic approach

The concept of development occupies a central position in the dialectics of Georg Hegel (1770-1831), to whom there belongs the statement “language is the body of thought” (Ilyenkov, 1991: 105). Contemporaries of August Schleicher, theoreticians of dialectical materialism Karl Marx (1818-1883), Friedrich Engels (1820-1895), as well as earlier Ludwig Feuerbach (1804-1872) and then V. I. Lenin (1870-1924) shared G. Hegel's doctrine of dialectics, which laid the foundation to the idea of the inevitability of changing the world. F. Engels in several works: “German Ideology”, “the Holy Family”, “Capital”, “Theses on Feuerbach”, “Dialectics of Nature”, “Anti-Dühring” further developed the dialectical doctrine of the development of nature and society, the dynamics of human practical activities, and also substantiate the dialectical unity of language and thinking. K. Marx postulates the idea that language acts precisely as “the immediate reality of thought” (Karl Marx, 1934: 720). In general, philosophers-materialists, being followers of the Hegelian dialectics, transformed his ideas. Within the framework of the dialectical materialistic approach to the doctrine of the unity of language and thought, they developed the idea that consciousness exists through knowledge, and in the form of words receives its content,

Let us recall the three laws of dialectics:

(1) The law of mutual transition of quantitative changes to qualitative ones;
(2) The law of unity and struggle of opposites; and
(3) The law of negation of negation.

Dialectical-materialistic teaching postulates the idea of the world around us as a single system in which internal contradictions determine the development of this system. All elements are in dialectical unity, and a change in one component entails a change in the other in order to preserve the overall unity and balance.

4. The law of transition of quantitative changes to qualitative and language changes

“The law of transition of quantitative changes into qualitative ones” is the first and basic law in the dialectics of G. Hegel. Within its framework of this law deals with four main categories: “quality”, “quantity”, “measure”, “leap”.

“Quality” is characterized by the functional unity of the essential features of an object (or system of objects) that has a material or spiritual nature and relative stability, which is represented as an integral object with certain parameters.

“Quantity” is expressed through the external formal relationship of parts of an object or objects.

A “measure” is represented by a period of equilibrium between quality and quantity, when the quality remains unchanged for a certain “interval” of time.
If quantitative changes go beyond certain acceptable limits, qualitative changes are observed, and a new quality is born. The process of converting quantitative changes into qualitative ones occurs in leaps and bounds.

The “leap” breaks the continuity of quantitative changes and reforms the system. In dialectics, a discontinuous violation of an interval with constant qualitative and quantitative changes is considered as a unity of discontinuity and continuity. The abrupt nature of development is evolution. Evolution is a process defined by quantitative changes that lead to qualitative transformations. Since language is a material object, the law of transition as a result of quantitative to qualitative changes has explanatory power for language changes.

Nominative processes provide a person with the opportunity to record fragments of their activity experience, allow them to form a picture of the world, describe their socio-historical structure, and serve scientific and technical development. Due to the rapid information progress and intensive development of science and technology in the world at the present stage, the English language, in particular, registered a “neological boom” (Zabotkina, 2014: 95).

The vocabulary of a language is in a state of continuous development or evolution. The formation of new words is one of the main ways to replenish the vocabulary. Abbreviating or shortening words and phrases is one of the most productive ways to create new words. Following E. S. Kubryakova’s ideas, abbreviation should be understood as “the process of creating units of a secondary nomination with the status of words, which is demonstrated by shortening any linear parts of the source unit of motivation and which results in the appearance of a word that in its form reflects any part or parts of the components of the original unit” (Kubryakova, 1981: 71).

In linguistic the formation of abbreviations is explained mainly by the action of two factors: extralinguistic and intralinguistic. Extralinguistic factors include social transformations, scientific and technological progress, and international changes. Being qualitative by nature, they are characterized by dialectical dynamics. Intralinguistic factors should be understood as the effect of internal laws that determine the evolution of language.

According to the first law of dialectics, “the Law of the transition of quantitative changes to qualitative ones”, a language is an object or system within which all elements are interconnected and are in a state of functional unity and balance over a certain interval. There are four main categories of dialectical development within the language: “quality”, “quantity”, “measure”, “leap”, and as long as quantitative changes do not exceed the limits allowed by the “measure”, qualitative changes in the form of a “leap” do not occur. Dialectics states that it is the “leap”, in which evolution of a new word with the status of the linguistic sign occurs. Nomination is a “leap” as a consequence of quantitative changes into new quality due to the loss of stability in the “measure” of the language in the given “interval” of time.

5. Language changes in linguistics

FR. Jespersen wrote about the existence of “universal laws of thought, which are reflected in the laws of language changes” (Jespersen, 1925: 128). Two dialectical factors are recognized in linguistics. The first, the kinematic tendency, which encourages changes in language and contributes to its evolution. The second factor being static by nature, counteracts the excessive volatility of the language and aims to preserve it as a system (Lightfoot, 1925: 45). Thus, on the one hand, language is preserved as a stable system in a state of equilibrium, and, on the other hand, being an open-type system, it is enriched by action of extralinguistic factors associated with changes in the world picture. F. de Saussure also noted that “with any change, the prevailing moment is the stability of the previous material. Infidelity to the past is only relative. That is why the principle of change is based on the principle of continuity” (Saussure, 1999: 107). As another intralinguistic factor, it is appropriate to name the law of saving language resources and speech
efforts. Martinet attached great importance to this law as the means of language development, since “a language evolution is determined by the constant contradiction between the inherent needs of human communication and expression and their desire to minimize their mental and physical activities. Language behavior is regulated, thus, by the “principle of least effort” (Martinet, 2009: 166). The definition of the principle of economy in a more complete form was proposed by Yu. V. Gorshunov: “The principle of economy is a pragmatic principle of generating an abbreviation, (1) it is caused by the need to update (rationalize) the material shell, (2) further it is associated with the utilitarian factor, and (3) finally it is aimed at obtaining economic benefits (creating a compact duplicate replacement). As a principle of usage, this law reveals a trend aimed at saving time, effort, and paper space” (Gorshunov, 1999: 199).

6. The law of unity and struggle of opposites and language

The second law of dialectics “the law of unity and struggle of opposites” serves as another proof to language changes and language development. In accordance with this law, the object of objective reality develops by splitting a single object into different and opposite representations. As a result of the interaction of these two forces, a single object, on the one hand, exists as a whole, and, on the other hand, in the presence of this interaction, an impulse for change and, consequently, development is available. This law is revealed through categories: “identity”, “difference”, “opposite”.

“Identity” defines the relation of an object to its content and other objects and it is the key to the stability of the system.

“Difference” defines the discrepancy, inequality of an object in its content and makes it relative to other objects in the system.

Mutually exclusive relationships are “opposites”.

Contradiction is expressed through the relation between opposites.

Let us recall how M. V. Panov characterized the internal causes of language changes: “in a language there is a qualitatively peculiar struggle of opposites, which determines its self-development. These opposites can be called linguistic antinomies, since each identity is a guarantee of the stability of the system, the concrete resolution of any of these opposites generates new collisions, new contradictions in the language (in principle, of the same order and, therefore, their final resolution is impossible as they are a constant stimulus for the internal development of the language” (Panov, 2007: 17).

7. Antinomies and translation of abbreviations

M. V. Panov defined one of the antinomies. This is the antinomy of “the Speaker and the Listener” (or between the Sender and the Addressee). When creating abbreviations, this antinomy is resolved in favor of the Sender, because the law of saving efforts applies. As for the recipient of the information, it is in their interest to get information in a form that is easy to understand, so most abbreviations, with the exception of those assimilated in Russian, are given in parentheses after the motivating word or phrase.

The abbreviation “NATO” almost does not require decoding because of its high recognition. The full name of this block “The North Atlantic Treaty Organization” is transmitted as “The North Atlantic Alliance”, “The Atlantic block”. While the abbreviation ABEDA – Arab Bank for Economic Development of Africa without decoding in the form of writing the full motivating phrase will be incomprehensible for the Addressee.
In the last decade, to solve the antinomy of “the Sender and the Addressee” in favor of the Addressee, business terminology has seen the formation of acronyms, abbreviations formed from the initial letters of the motivating phrase, consisting of two or three syllables. They are like words in their form. Source of examples: English-Russian dictionary of acronyms and abbreviations of economic terms (Maksimova, 2002).

SEA - 1. Securities Exchange Act; 2. state economic area;
SCOOP - Scientific calculation of Optimum programs;
SOFA - Society of Financial advisors.
MINI - mortgage intermediary note issue.
BET - book entry transfer.
BAN - bond anticipation note/
AIMS - Amsterdam Interprofessional Market System.
ZEBRAS - zero coupon euro sterling bearer or registered accruing securities; “Zebras” - Euro-sterling bonds with zero coupons.
ACES- Advanced Computerized Execution System (US).
SWIFT - Society for Worldwide Interbank Financial Telecommunications.
TAPAC - Society for Distribution and Control Committee; Committee for priority, distribution and control of transportation.
TAURUS - Transfer and Automated Registration of Uncertified Stock system for sale and automatic registration of ownership of shares without circulation of share certificates.

In these examples, acronyms formed from initial letters are read as words that match anthroponyms, zoonyms, and other lexical units. It is easier for both the Sender and the Addressee to articulate and remember them. It is possible to borrow acronyms with the spelling that matches the words in Russian: “Talisman”, “Zebra”, proper name “Taras(c)”.

To some extent, the formation of abbreviations of this type helps to resolve the conflict of opposing interests in the antinomy between the Sender and the Addressee and achieve a kind of balance. It is important to note that according to the law of dialectics on “the unity and struggle of opposites” the resolution of a dialectical contradiction in these cases can cause other collisions. As a result, language transformations occur according to the principles considered or by other models.

8. The structure of the neologisms

The modern picture of the world is characterized by numerous events that are cognitively perceived and interpreted by a person in an attempt to nominate them; these units of new nomination are based on existing experience and similar situations, solve the problems and
interpret the changing external world. The language, performing a thought-forming function, has the means and structures for nominating concepts and forming images. Abbreviation is one of these possibilities. Neologisms-abbreviations successfully contribute to solving the problem of nominating new knowledge structures in the outer world.

Neologisms are usually divided into several groups based on the method of their production (Zabotkina, 2014: 101-104). Morphological neologisms belong to one of the groups, they are formed from patterns that exist in English, and mostly according to productive models. Morphological neologisms are classified into the following groups: affixal neologisms (prevailing model N+Suffix=N: masculinist), complex words (prevailing model N+N=N: muffin cooker), converted lexical units: (a doctor – to doctor), new words-fusions, for example: slimnastics and abbreviations. In the twentieth century appeared new types of word formation structures: acronyms and telescopes (blends, portmanteau – with omitted middle component words); the need to study them is actualized. Morphological borrowings are characterized by the presence of analogies and typification of word formation structures.

As for the analogy, three types of word-forming processes are identified: (1) “focusing on a unique or almost unique lexical pattern; (2) focusing on a certain model of word-formation derivative relations, i.e. regular correlation between single-root formations; and (3) focusing on the model of transition from a syntactic construction to its collapsed counterpart, “univerb” (Kubryakova, 1978). The reduction of morphological types occupies a special place. They are characterized by “attractiveness” and are far from traditional, which provides them with readers' attention in the mass media.

Examples of such modern neologisms are: Brexit, Nexit, Rexit, and quite recently in the light of the event of the refusal of Prince Harry and his wife Meghan, the Duke and Duchess of Sussex, from the privileges of the Royal family, we recall the gushing “Megxit”.

The abbreviations Brexit, Nexit, Rexit and “Megxit” are intended to have a certain pragmatic effect on the reader. The neologism “Brexit” is formed from the first two letters of the word Britain “Britain” and the full lexical unit “exit”. The neologism “Brexit” has been well known since 2016, when the UK held a referendum to leave the European Union. Over the past two years, this abbreviation has been widely replicated in all media. As for the abbreviations Nexit, Rexit, they are derivatives “for the evil of the day”. They are obvious demonstrations of the linguistic creativity of the publication where they appeared, namely, “the Economist”. The leading component of the pragmatics of these new words is the temporal localization component, which is one of the elements of deixis. At the same time, the connotation of novelty actualizes the acute neological power of these words.

Structural types of abbreviations attract the attention of many Russian and foreign linguists. Numerous types of classifications are known (Baranov, 2003; Matthews, 1997; Bychkova, 2018: 14-23). Let’s look at some of them.

G. Marchand identifies three main types of English abbreviated words (Cit. Duzikova, 2013: 357):

- clippings - captain = cap;
- complex clipping compounds - linoleum + cut = linocut. This type includes the neologisms Brexit; and
- blendings (telescopes, blends, portmanteau words) + smoke + fog = smog.

L. Soudek also identifies three types of English abbreviated words (Soudek, 1967: 82-102);
- monosyllabic abbreviations: aboriginal - abo;
- compound syllabic shortenings: amphibious tractor - amtrack; and
- initial clippings: chief of staff - cos.

Blendings (blends) or telescopes (telescopic words) are allocated to a separate type, for example: smoke + fog = smog. The Brexit unit goes beyond the classification of L. Soudek.

Morphological abbreviation is characterized by the destruction of morphemes traditionally used in the language. A specific feature of morphological abbreviations is the presence of fragments of words in their composition, which, as a rule, do not coincide with either morphemes or words. Morphological abbreviations are divided into clippings, initial abbreviations, and mixed-type abbreviations (with elements of both clipping and initial abbreviation).

Clippings are classified into:

1. Apocope - clipping of the final part of the word: submarine - sub;
2. Apheresis - clipping of the initial part of the word: telephone - phone;
3. Clipping of the beginning and ending parts of word: influence – flu;
4. Syncope is a phonetic phenomenon that consists in the loss of a usually unstressed sound, or a group of sounds, or even an entire syllable in a word – regulations – regs;
5. Initial abbreviations are classified according to the way they are pronounced (based on their phonetic structure or alphabet);
6. Blends (telescopes, blendings, portmanteau words) – a clipping without the middle component – smoke + fog – smog;
7. Stump compound – clipping made up of initials of two or more words: situation comedy – sitcom.

According to G. Marchand’s classification, the neologisms Brexit, Nexit, and Rexit are complex clipping compounds with the following word formation model: clipping of the first unit + N, namely Br(itain) + exit = Brexit. , Nexit, and Rexit have the structure - N (o) + exit = Nexit; R(ex) (Tillerson) + exit. In our opinion, in addition to abbreviation, another method of productive word formation is also involved: prefixation. In this case, the model looks like this: Abbr + N or Pr (prefix) + R (root).

The neologism “Megxit” has its own structure: Meg + xit = Megan + exit – clipping of the beginning of the first component + the end of the second one. Language signs with a similar structure have different terminology. This is a blend (lending), a hybrid word, a bracket form, a telescopic word. a portmanteau word. Structurally, this language sign is formed from two equivalent words: it is a complex word with the middle component omitted as a result of combining parts of two initial words.

Another interpretation of the structure is possible: M+e+g+xit – the initial of the first word Megan and the full-value second word exit with the consonant element “g” in the middle.

9. Conclusion

Language, performing a thought-forming function, has the means and structures for nominating concepts and forming images. Abbreviation is one of these possibilities. Neologisms-abbreviations successfully contribute to solving the problem of nominating new knowledge structures in the concept sphere of the surrounding world.
Abbreviation is a productive way of word formation. The tendency to simplify language expression while maintaining informative communication is strengthened along with the obvious changes observed in society: the growing popularity of sportswear and fashion for “unisex”, changes in social and family relations, etc. The effect of the law of saving speech efforts is clearly shown in the widely used SMS language, which is characterized by the principle: the minimum number of characters and keystrokes with maximum information, for example: TTY (talk to you later), txtspk, etc. Linguistics in the framework of cognitive research involving different areas of knowledge: psychology, cultural studies, philosophy, sociology, and others is faced with the task of tracking current language changes, primarily in English as a global language, the language for international communication which English has become in the twentieth century.

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